China Resources Power Holdings Company Limited

Sustainable Development Report 2023





# **About the report**



This is the 14th Sustainable Development Report published by China Resources Power Holdings Company Limited ("CR Power"). It is an annual report for the year from January 1 to December 31, 2023.

### **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 C2 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")
- 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)
- 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
- 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 subsidiaries (see Organizational Structure on page 89), 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 on 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.

### **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 the Report**

This Report was approved by the Board of Directors in 04/2024.

### Access to the Report

This report is available on the HKEX website (www.hkexnews.hk) and the CR Power website (www.cr-power.com/duty/kcxfzbg/).

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

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安永华明(2024)专字第70040984\_H01号

# Independent Assurance Report

To the Board of China Resources Power Holdings Corporation:

### I. Scope of Our Engagement

The 2023 Sustainable Development Report (the "Sustainable Development Report") of China Resources Power Holdings Co., Ltd. (the "Company') has been prepared the Company, Management of the Company (the "Management") is responsible for the collection and presentation of information within the Appendix C2 *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 2023 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 as 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 2023:

### **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 Carbon Dioxide 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 (subsidiary coal-fired power plants) (g/MWh)
- Natural gas consumption (Mm<sup>3</sup>)
- Diesel consumption (kt)
- Coal consumption (kt)
- Purchased electricity (MWh)
- Nitrogen oxide emissions (kt)
- Nitrogen oxide emission rate (g/kWh)
- Sulfur dioxide emissions (kt)
- Sulfur dioxide emission rate (g/kWh)
- Particulate emissions (kt)
- Particulate emission rate (g/kWh)



### Social

- Total headcounts
- Female employees
- Ethnic minority employees

In response to the above key performance indicators, the Company has applied the Environmental, Social and Governance reporting guidelines in the Appendix C2 *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 perform analytical procedures and other limited assurance procedures, etc.

The limited assurance procedures we carried out are following:

- 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.

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### IV. Level of Assurance

Our evidence gathering procedures have been designed to obtain a limited level of assurance 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 2023 Sustainable Development Report are unfairly expressed in any material respect according to the Reporting Criteria 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.





The year 2023 marked the first year to fully implement the spirit of the 20th CPC National Congress, a key year to implement the "14th Five-Year Plan", and an important year for CR Power to embrace major strategic opportunities and pursue rapid development. In this year, we have diligently adhered to the important instructions and comments of Xi Jinping, fully implemented the requirements of the Group's "1246" model construction, consistently deepened the "four-reshaping" initiatives, accelerated the development of new energy, achieved comprehensive development based on integrated energy layout, continued enhancing operational excellence to improve quality and increase efficiency, and maintained a positive trend in all operational indicators. In 2023, CR Power achieved an operating revenue of HKD103.334 billion and a net profit of HKD11.003 billion, with a year-on-year increase of 56.2%.

# Focus on "dual carbon" and uphold green development

In the journey towards the solemn commitment of "carbon peaking by 2030, carbon neutrality by 2060", we adhere to the concept of sustainable development and always stand at the forefront of the times, remain vigilant about the challenges of climate change, and take proactive actions to identify and address climate risks. We not only focus on planning and constructing clean energy projects such as wind power and photovoltaics but also vigorously promote the R&D and application of energy technology and lowcarbon technology. Additionally, we continuously enhance our expertise in carbon asset operation to drive our green journey forward. In 2023, the installed capacity of CR Power's renewable energy projects accounted for more than 37.8%, with CCUS technology capturing over 35,000 tons of carbon dioxide and a green electricity trading volume of 2.77 billion kWh.

# Take responsibility and live up to the original aspiration

Facing the challenges such as intensifying fuel price fluctuations and prominent national electricity supplydemand imbalances, CR Power upholds our responsibility to energy supply for socio-economic development. Many dedicated employees of CR Power are at the forefront of ensuring supply, working diligently and wholeheartedly to guarantee a stable supply of electricity and heat. At the same time, we are deeply rooted in the national rural revitalization strategy and actively explore new assistance paths such as "new energy+", "purchase to support", and "infrastructure assistance", so as to effectively support the comprehensive rural revitalization and development. Our responsibilities as a central state-owned enterprise have been fully and effectively demonstrated in the field of public welfare and charity. In 2023, CR Power invested more than RMB49.89 million in public welfare and charity, focusing on helping vulnerable groups, supporting education, and promoting environmental protection.

# Put people first and create value – driven dynamics

In this era full of challenges and opportunities, we advocate for the development of enterprise on the principle of "relying on people for everything and strives for the wellbeing of people". We work together with our employees and customers toward a brighter future. On the one hand, employees are the most valuable assets of CR Power. We have always safeguarded their legitimate rights and interests, carried out in-depth work on "reshaping the talent development system" to empower their growth and success, resolutely guaranteed their safety and health, and spared no effort to create a fair, safe, and happy working environment. On the other hand, customers are at the core of our service. We adhere to the customer service philosophy of "response with speed, meet needs with precision, engage with warmth in the process, and achieve satisfaction with excellence". We conduct power marketing with a more responsible attitude, leveraging digitalization to provide more efficient, convenient, and high-quality electricity services. In 2023, CR Power's total investment in employee training reached RMB24.35 million; there were no customer complaints throughout the year.

# Integrity and compliance drive benign development

In the ever-changing industry environment, CR Power steadfastly walks on the path of sustainable development, all made possible by our unwavering commitment to integrity and compliance in our operations. We participate in market competition with a fair and just attitude and build a more sound compliance management system by formulating the Management Measures for Overseas Anti-commercial Bribery Compliance of CR Power and an annual list of ten major risks. We insist on establishing and maintaining fair, honest, and transparent cooperative relations with suppliers to jointly create greater value along the supply chain. With a sincere heart, we join hands with brother enterprises and industry partners to deepen cooperation and exchanges in the fields of clean energy development, energy technology innovation, and lowcarbon technology R&D. We sincerely share the "CR Power Wisdom" and jointly explore new trends and opportunities for industrial development.

With perseverance and determination through the long journey ahead, every step we take propels us toward our goal of sustainable development. In 2024, CR Power will resolutely implement the new development concept of "innovation, coordination, green, openness, and sharing", accurately grasp the strategic opportunity of new energy development during the 14th Five-Year Plan period, improve quality and efficiency while expanding business scale, continuously promote high-quality development, and confidently march towards our goal of becoming a worldclass clean energy supplier and integrated energy service provider with global competitiveness.

# 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 December 31, 2023, CR Power had HKD322.396 billion of assets, 77,324 MW of operational generation capacity, and 59,764 MW of attributable operational generation capacity of which renewable energy projects contributed 37.8%, with businesses covering 31 provinces, autonomous regions, municipalities, and Hong Kong special administrative region. CR Power has been listed in Forbes Global 2,000 for 17 consecutive years, ranking 850th in comprehensive ranking. Since 2020, CR Power has been selected as a constituent of the Hang Seng ESG 50 Index and the Hang Seng Corporate Sustainability Benchmark Index for four consecutive years. In 2023, CR Power was included in the constituent stocks of the Hang Seng Index and ranked 707th in TIME magazine's 2023 list of World's Best Companies, fully demonstrating the recognition of the capital market for CR Power's strategic transformation and innovative development.



CR Power had

HKD 322.396 billion of assets



59,764 MW of attributable operational generation capacity 77,324 N

of operational generation capacity



renewable energy projects





Renewable Energy



Integrated energy services



Energy technology

## **Business Types and Distribution**

# Langsu Changshu (1,950.0MW) Guoneng Taicang (1,200.0MW) HuaXin (660.0MW) Nanjing Chemical industry Park (670.0MW) Nanjing Thermia (1,200.0MW) Tongshan (2,000.0MW) Yangshou No. 2 (1,260.0MW) Changshou No. 2 (1,260.0MW) Changshou Gas (103.3MW) Changshou Gas (103.3MW) Changshou Gas (103.3MW) Huai'an Bojing Vinid (47.5MW) Huai'an Winid (55.5MW) Nantong Vinid (55.5MW) Suining Vinid (47.5MW) Suining Vinid (47.5MW) Suining Vinid (47.5MW) Suining Vinid (47.5MW) Suning Wind (37,11MW) Yancheg Wind (42,01MW) Yancheg Wind (42,01MW) Huai'an PV (10,1MW) Boyunte Distributed FV (32,7MW) Gaoyou Distributed FV (32,01MW) Gaoyou Distributed FV (32,01MW) Rizhou Distributed FV (32,01MW) Rizhou Distributed FV (34,01MW) Sunian Distributed FV (35,01MW) Sunian Distributed FV (4,01MW) Sunian Distributed FV (4,01MW) Taking Distributed FV (4,01MW) Taking Distributed FV (4,01MW) Yaniang Binhai Distributed FV (2,01MW) Yaniang Bin Distributed FV (2,01MW) Yanjiang Reli Distributed PV (0.2MW) Zhenjiang Distributed PV (2.1MW)

Henan Dengfeng (1,840.0MW) Gucheng (600.0MW) Jiaozuo Longyuan (1,320.0MW) Shouyangshan (1,200.0MW) Anyang Wind (238.9MW) Fengiqi Wind (70.0MW) Huasian Wind (200.0MW) Huaja Wind (40.0MW) Linying Wind (100.0MW) Linying Wind (100.0MW) Luohe Wind (52.0MW) Lushan Wind (28.6MW) Luyi Wind (100.0MW) Neihuang Wind (450.0MW) Qixian Wind (34.0MW) Queshan Wind (60.4MW) Shangqiu Wind (20.0MW) Tanghe Wind (363.0MW) Shangqiu Wind (20.0MW) Tanqhe Wind (20.0MW) Wugang Wind (26.0MW) Xinyan Mind (26.0MW) Xinyang Ming Wind (20.0MW) Xinyang Ming Wind (20.0MW) Xinyang Yangming Wind (20.0MW) Xinyang Yangming Wind (20.0MW) Xinyang Yangming Wind (20.0MW) Xinyang Yangming Wind (20.0MW) Xinyang Yanghi Qiao (20.0MW) Yashi Wind (30.0MW) Yashi Wind (30.0MW) Yashi Wind (20.0MW) Yauangang Wind (20.0MW) Yauangang Wind (20.0MW) Yauangang Wind (20.0MW) Yauangang Wind (20.0MW) Janazuo Distributed PV (20.0MW) Janazuo Distributed PV (20.0MW) Janazuo Distributed PV (20.0MW) Janazuo Distributed PV (20.0MW) Yaushang Kanothari Wind (20.0MW) Janazuo Distributed PV (20.0MW) Xinxiang Economic Development Zone Distributed PV (5.2MW) Xuchang Weiduqu Distributed PV (2.5MW) Zhengzhou Distributed PV (2.5MW) Zhengzhou Distributed PV (2.5MW) Zhengzhou Distributed PV (2.5MW)

Guangzhou Thermal (600.0MW) Liyujiang A (600.0MW) Liyujiang B (1,300.0MW) Shenzhen (2,000.0MW) Yunfu (660.0MW) Zhuhai Gas (102.0MW) Fogang Wind (50.0MW) Huliai Wind (133.5MW) Leinben: Wind (130.0MW) Huilai Wind (133.5MW) Leizhou Wind (135.5MW) Lianzhou Wind (345.0MW) Lianzhou Wind (345.0MW) Lufeng Wind (66.0MW) Qingyuan Cegang Wind (74.5MW) Qingyuan Qingain Wind (110.0MW) Shantou Lakaona Wind (145.9MW) Shantou Haojiang Wind (18.0MW) Shantou Haojiang Wind (18.0MW) Shantou Wind (29.3MW) Xinyi Wind (30.0MW) Xuwen Wind (100.0MW) Xuwen Wind (100.0MW) Xuxen Wind (100.0MW) Yangiang Wind (85 MW) Yangiang Wind (85 MW) Yingde Photovlatic (28,0MW) Qingtuan PV Ada (5 MW) Qingtuan PV Ada (6 MW) Qingtuan PV Ada (6 QAW) Qingtuan PV Ada (6 QAW) Lianjiang Distributed PV (13,9MW) Sharuto Qingtuan Distributed PV (2,4MW) Sharuto Qingtuan Distributed PV (2,4MW) Sharuto Qingtuan Distributed PV (13,6MW) Yunfu Yunian Distributed PV (13,6MW) Zhaoqing Distributed PV (13,6MW) Zhaoqing Distributed PV (11,1MW) Zhuhai Distributed PV (2,1MW) Hubei Hubei (600,0MW) Hubei Phase II (2,000,0MW) Xiehara (12,200,0MW) Yichang (720,0MW) Dangyang Wind (37,5MW) Guangshui Wind (132,2MW) Suizian Tianhekou Wind (634,8MW) Suiziban Tianhekou Wind (634,8MW) Suiziban UWind (498,8MW) Suizhou Wind (49.8MW) Yicheng Urag Wind (75.0MW) Yingheng Wind (217.8MW) Yingcheng Wind (300.0MW) Zaoyang Bailu Wind (40.0MW) Zaoyang Wind (181.3MW) Zhongxiang Wind (70.0MW) Chibi PV (430.9MW) Olaniliang PV (430.9MW) Oianiiang PV (73.6MW) Qianjiang PV (73.6MW) Xiaochang PV (192.0MW) Xiantao PV (300.2MW) Chibi Distributed PV (2.6MW) Bezhou Distributed PV (2.6MW) Hong'an Distributed PV (0.8MW) Wuhan Distributed PV (1.4MW) Yichang Distributed PV (1.0)

Hebei Bohai Xingu (700.0MW) Cangzhou (660.0MW) Caofeidan (000.0MW) Caofeidan (000.0MW) Tangshan Fergun (700.0MW) Yundong (700.0MW) Chengde Weichang Wind (246.0MW) Fucheng Wind (50.0MW) Handan Wind (50.0MW) Unihang Wind (50.0MW) Dhangbei Wind (50.0MW) Olimbuangdao Shahai (30.0MW) Cangzhou Distributed PV (1.1MW) Caofeidan Distributed PV (1.1MW) Caofeidan Distributed PV (1.1MW) Caofeidan Distributed PV (1.1MW) Caofeidan Distributed PV (2.7MW) Tangshan Fengnanqu Distributed PV (2.7MW)

Heze (1,200.0MW) Dezhou Wind (150.0MW) Dongying Wind (100.0MW) Feixian Wind (119.4MW) Haiyang Wind (300.0MW) Heze Wind (100.0MW) Heze Wind (100.0MW) Heijang Wind (200,0MW) Heaz Wind (100,0MW) Jiaozhou Wind (28,4MW) Jining Wind (48,5MW) Jioxin Wind Phase (150,0MW) Jioxin Wind Phase (150,0MW) Jioxin Wind Phase (150,0MW) Liny Wind (26,0MW) Liny Wind (26,0MW) Engla Daixhang Wind (49,8MW) Pengla Daixhang Wind (49,8MW) Pengla Daixhang Wind (49,8MW) Pengla Daixhang Wind (49,8MW) Qingdao Wind Phase (150,0MW) Qingdao Wind Phase (150,0MW) Rizhao Wind (46,6MW) Weihai Hiaouci Wind (50,0MW) Weihai Wind (50,0MW) Weihai Wind (50,0MW) Weihai Haouci Wind (50,0MW) Waihai Wind (46,6MW) Yantai Pengla Wind (46,0MW) Yantai Pengla Wind (46,0MW) Yantai Pengla Wind (50,0MW) Yurcheng Ganarou Mind (50,0MW) Yurcheng Shangyana Wind (50,0MW) Zao King Wind (40,0MW) Zao King Uid (40,0MW) Jiancheng Distributed PV (1,3MW) Jiang Distributed PV (1,3MW) Jiang Distributed PV (1,3MW) Jiang Distributed PV (1,3MW)

# Inner Mongolia Autonomous Region Dengkou (600 0MW) Jingneng Xilinguole (1,320 0MW) Xilinguole (1,320 0MW) Alashan Wind (200.0MW) Baynole Wind (200.0MW) Hangjingi Wind (198.0MW) Hanghingi Wind (198.0MW) Manzhouli Wind (49.5MW) Manzhouli Wind (49.5MW) Yulanchabu Hongmu Wind (49.5MW) Wulanchabu Hongmu Wind (49.5MW) Xilinhaote Wind (200.0MW) Zhengxiangbaiqi Wind (225.0MW)

Laoning Jandou Themal (1, 320, 0MW) Panjin (700, 0MW) Shenhai Themali (300, 0MW) Benhai Themali (300, 0MW) Fuxin Wind (93, 0MW) Fuxin Wind (93, 0MW) Jianping Wind (93, 0MW) Jianbou Wind (40, 0MW) Linghai Wind (90, 0MW) Haludao Distributed PV (1, 4MW) Jinzhou Distributed PV (1, 4MW) Jinzhou Distributed PV (1, 4MW)

M Thermal power

- Divid power, photovoltaic power, hydro-electric power
- Power sales
- Integrated energy service

Gansu **()** 🛞 🗘

Qinghai

### **Tibet Autonomous Region**

Sich **B** (\*

Yunnan 🔁 🗘 🖨





Hezhou (2,000.0MW) Beiliu Wind (46.2MW) Cangwu Wind (100.0MW) Cenxi Wind (70.0MW) Hezhou Wind (80.0MW) Nanning Wind (20.0MW) Rongxian Wind (130.0MW) Tiandong Wind (100.0MW) Xiangzhou Wind (50.0MW) Xiangzhou Wind Phase II (50.0MW) Xiangzhou Wind Phase II (50.0MW Yulin Wind (84.0MW) Hezhou PV (6.0MW) Nanning PV (169.7MW) Hezhou Distributed PV (19.0MW) Guangxi Distributed PV (38.2MW) Zhaoping Distributed PV (0.4MW)

Cangnan (2,030.0MW) Wenzhou Telluride (660.0MW) Cangnan Offshore Wind (400.0MW) Daishan PV (101.4MW) Zhejiang Distributed PV (6.1MW)

Guizhou Liuzhi (1,320.0MW) Jianhe Wind (182.0MW) Jinping Wind (35.1MW) Kaili Wind (50.0MW) Liping Wind (53.1MW)

 Sharki

 Ningwu (700.0MW)

 Datong Guangling Wind (99.0MW)

 Datong Vind (19.0MW)

 Datong Vind (19.0MW)

 Linden Vind (19.0MW)

 Datang Vind (19.0MW)

 Linden Vind (19.0MW)

 Xinnong Wind (50.0MW)

 Xinnong Wind (50.0MW)

 Xinnong Wind (60.0MW)

 Dangyang Wind (220.0MW)

 Danian PV (30.0MW)

 Xinnong PV (20.0MW)

 Xinnong PV (50.0MW)

Lianyuan (600.0MW) Linwu Wind (68.0MW) Loudi Distributed PV (0.3MW) Wugang Distributed PV (5.6MW) Zixing Distributed PV (0.2MW)

Anhui Fuyang (1,280,0MW) Fuyang (Phase II (1,320,0MW) Dingyuan Wind (25,0MW) Dingyuan Wind (25,0MW) Erangyang Wind (50,0MW) Lingbi Wind (50,0MW) Mingguang Wind (50,0MW) Mingguang Wind (50,0MW) Suiw Wind (13,0MW) Chizhou Distributed PV (2,0MW) Huaibei Distributed PV (3,0MW) Huaibei Distributed PV (3,0MW) Huaiban Distributed PV (3,0MW) Huashan Distributed PV (6,0MW)

Haiyuan Wind (710.0MW) Haiyuan Wind (710.0MW) Zhongwei City Wind (50.0MW) Haiyuan PV (220.0MW) Shizuishan City PV (20.0MW) Yuanguang PV (50.0MW) Zhongningxian PV (530.4MW)

Changle (2,000.0MW) Guazhou Wind (497.5MW) Huachi Wind (50.0MW) Huanxian Wind (50.0MW) Huanxian Wind (SO.UMW) Jinchang Yongneng Wind (100.0MW) Subei Wind (200.0MW) Zhangye Lilong Wind (400.0MW) Guazhou PV (50.0MW)

Fujin Wind (50.0MW) Jiamusi Wind (43.5MW) Anda PV (120.0MW) Tailai PV (20.0MW) Anda Distributed PV (0.7MW)

Baoji Wind (200.0MW) Dingbian Wind (50.0MW) Dingbian Wind (Su.Uww) Tongguan Wind (69.4MW) Yan'an Wind (100.0MW) Yanchuan Distributed PV (0.1MW)

Yunnan Honghe Hydro (210.0MW) Yiliang Wind (80.0MW) Midu Photovoltaic (20.0MW) Zihaotong PV (20.0MW) Yiliang Distributed PV (20.7MW) Yimen Distributed PV (4.6MW) Zhenkang Distributed PV (4.5MW)

### Yazuihe Hydro (260.0MW)

Yuexi Wind (106.1MW) Heishui PV (30.0MW) Panzhihua Distributed PV (4.8MW)

De'an Wind (70.0MW) Dingnan Wind (70.0MW) Ganzhou Nankang Wind (64.0MW) Ruichang Wind (36.0MW) Xiajiang Wind (82.0MW) Fuzhou PV (156.8MW)

Changting Wind (46.0MW) Changting Wind (48.0MW) Minqing Wind (30.0MW) Fujian Distributed PV (14.3MW) Fuqing Distributed PV (17.0MW) Fuzhou Distributed PV (18.1MW) Shanwu Distributed PV (12.5MW) Putian Distributed PV (12.5MW)

Beijing Thermal (150.0MW) Beijing Huaguang Distributed PV (2.2MW)

Dachaidan Wind (50.0MW) Gonghe Wind (100.0MW) Delingha PV (20.0MW) Jipin PV (100.0MW)

Jiangzi PV (20.0MW)

Da'an Wind (100.0MW) Nong'an Wind (40.0MW)

Haikou Distributed PV (1.3MW)

Shanghai Gas (2.4MW)

Chongqing Energy (2,377.1MW) Chongqing Wind (62.5MW)

Baodi Wind (30.0MW) Qingzhifeng Wind (51.5MW) Tianjin Distributed PV (0.4MW)

Huachuang PV (0.7MW)

# Top 10 Events in 2023

The year 2023 is the first year to fully implement the guiding principles of the 20th CPC National Congress and the commencement of the 14th Five-Year Plan. Throughout this year, we have embraced the vision of "becoming a leading clean energy supplier and integrated energy service provider". Guided by construction requirements of the Group's "1246" model, we have managed energy security supply and green low-carbon development in a coordinated manner. Our focus has remained on ensuring a dependable energy supply, deepening the implementation of our innovation-driven development strategy, enhancing our operational system, and expediting the transition towards green and low-carbon energy. We have been fully committed to advancing CR Power's 14th Five-Year Plan strategy, aiming to elevate CR Power's high-quality development to a new level.

# 01

## CR Power promoted thematic education to support the Company's high-guality development

Commencing in April 2023, CR Power has engaged in comprehensive thematic education focused on studying and implementing Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era. At various levels of the Party organization, thousands of special study seminars on this ideology have been conducted. Additionally, 234 research teams have been established to address over 700 issues related to project indicator acquisition, equipment and technical upgrades, and organizational structure optimization. Moreover, 661 issues have been rectified and addressed, including ensuring compliance with new energy licensing regulations, fostering scientific and technological innovation, and strengthening the foundation of Party building.



CR Power's theme Party day activity on July 1



### CR Power Chongqing Energy obtained 4100MW "Xinjiang-to-Chongqing Power Transmission" construction quota

On July 7, CR Power Chongqing Energy Investment Group obtained the construction quota (4,100MW) of "Xinjiang-to-Chongqing Power Transmission" Chongqing Energy-Xinjiang Tianshan Northern Foothill New Energy Base Project, including 2,800MW wind power, 1,200MW photovoltaic power, and 100MW photothermal energy, equipped with 800MW/3,200MWh energy storage. The project is expected to start construction in 2024. After being put into operation, it can provide 9.786 billion kilowatt-hours of clean electricity and save 2,950,500 tons of standard coal per year. The project will effectively optimize the allocation of national power resources, help the Chengdu-Chongqing region build a new pattern of dual-city economic circle, and accelerate Xinjiang's transformation from resource advantages to economic advantages, thus significantly contributing to guaranteeing national energy security and socioeconomic development.



Image drawing of Chongqing Energy-Xinjiang Tianshan Northern Foothill New Energy Base Project



## CR Power Party Conduct and Government Integrity Education Center was unveiled

On March 25, CR Power held the 2023 Party Building and Discipline Inspection Working Meeting & Party Conduct and Government Integrity Construction Meeting. At the meeting, the completed CR Power Party Conduct and Government Integrity Education Center was unveiled and a video visit was conducted. Since its unveiling, the center has received 30 groups of visitors, including nearly 1,000 visits from CR Power's business units, local government departments, and business partners.



Exterior view of CR Power Party Conduct and Government Integrity Education Center



### CR Power completed the strategic mid-term review with high quality

In 2023, CR Power thoroughly implemented the "1246" model of China Resources Group, actively promoted the "four reshapings", comprehensively sorted out and reviewed the strategic direction and implementation since the start of the "14th Five-Year Plan" period, primarily optimized the "1237" overall strategy, further clarified the development ideas and key measures for the three major business sectors, and formed programmatic documents and action guidelines for its high-quality development in the second half of the "14th Five-Year Plan" period. 03

### CR Power returned to the blue chips of the Hong Kong stock market

On May 12, Hang Seng Indexes Company Limited announced the quarterly inspection results and CR Power was once again included in the constituent stocks of the Hang Seng Index. Hang Seng Indexes Company Limited is responsible for the development and management of the Hang Seng Index series, mainly covering stocks listed in Hong Kong and the Chinese mainland. As one of the earliest stock market indexes in Hong Kong, the Hang Seng Index ("HSI") has become the most widely cited index for the Hong Kong stock market performance. This return to the constituent stocks of the Hang Seng Index fully demonstrated the recognition and affirmation of the capital market for CR Power's strategic transformation and innovation-based development achievements.



### 恒生指數有限公司宣佈指數檢討結果

(香港·2023年5月12日)- 恒生指數有限公司(「恒生指數公司」)今天宣佈·截至2023年3月31日之恒生指數系列季度檢討結果·所有變動將於2023年6月5日(星期一)起生效。

1. 恒生指数

CR Power reassuming the Hang Seng Index's constituent stocks



## CR Power South China Region obtained the development right of a 1,000MW offshore wind power project in Guangdong Province

On October 11, CR Power Shenshan Company in the South China Region obtained the development right of the 500MW Shanwei Honghaiwan Fifth Offshore Wind Power Project, while CR Power Guangzhou Company acquired the development right of the 500MW Yangjiang Sanshandao Fourth Offshore Wind Power Project. On December 29, the 500MW Honghaiwan Fifth Offshore Wind Power Project was examined and approved by the Development and Reform Bureau of Shanwei. The acquisition of 1,000MW offshore wind power development right marked CR Power's breakthrough of "zero" in the offshore wind power field in Guangdong, laying a solid foundation for achieving leapfrog development during the "14th Five-Year Plan" period.



CR Power held the "14th Five-Year Plan" strategic mid-term review meeting



Anemometer tower of the Yangjiang Sanshandao's Fourth Offshore Wind Power Project

# 04

### CR Power accelerated the large-scale development of new energy

CR Power actively promoted the large-scale development of new energy and obtained the new energy construction quota of 19,500MW in 2023, of which the construction in national deserts, the third batch of large bases and provincial-level onshore new energy bases accounted for 50%, and Guangdong, Fujian, and Zhejiang regions obtained 4.26 million kilowatts of offshore wind power resources, marking important breakthroughs. CR Power made every effort to expedite the construction of new energy bases, with its grid connection scale reaching a record high. The large-scale development of new energy is conducive to CR Power's expansion of the installed proportion of renewable energy while holding great significance for promoting energy transformation, energy conservation and emission reduction, and economic development.



Hongguang Fishery 800MW Photovoltaic Project of China Resources Caijin (Large Base)



## CR Power completed the smart benchmarking power plant and wind farm

Guided by replacing manual operations with machine algorithms, China Resources Power (Xiantao) Co., Ltd. completed the construction of a smart power plant with one platform and 29 intelligent applications. Leveraging digital technologies such as the intelligent Internet of Things, machine learning, and cloud-edge collaboration, the Fuxin Smart Wind Farm of CR Power's Guangdong New Energy Company created a benchmark for intelligent and digital stations within the wind power industry. CR Power led the compilation of the first national set of standards for smart thermal power plants in the industry, which enhanced the influence of the power industry. The smart power plant (smart wind farm) has created a replicable and promotable intellectualization and digitalization system, achieving the demonstration effect of leading industrial development and standardizing industrial ecology.



The integrated management and control platform of the smart power plant of China Resources Power (Xiantao) Co., Ltd.

05

## CR Power's energy supply guarantee work was praised by the National Development and Reform Commission

CR Power resolutely implemented the spirit of Xi Jinping's instructions on energy supply guarantee and the State Council's work requirements for energy and power supply guarantee. It earnestly fulfilled its entity responsibility of ensuing safe supply guarantees from such aspects as clarifying entity responsibilities at different levels, strengthening equipment management, and increasing thermal coal reserves. During the summer peak, CR Power's unplanned outage capacity and output blocking rate of thermal power both reached a historically excellent level. In 2023, CR Power was commended in writing by the National Development and Reform Commission for its energy supply guarantee work. CR Power's good performance in the energy supply guarantee work embodied its business direction of improving Chinese people's livelihoods and demonstrated its role in fulfilling the political and social responsibilities as a central state-owned enterprise.



Equipment inspection by employees of China Resources Power Dengfeng Co., Ltd. in the summer



### CR Power won multiple international, regional, and ESG honors

In 2023, CR Power won the Outstanding Listed Company Award of the Year; three of its affiliated units were granted the 2023 Asian Power Awards and six with the Hong Kong Green Awards 2023. In the field of ESG, the Company has successively ranked second among the ESG Pioneer 100 Index constituents under the Central SOE Series selected by the SASAC, been selected as a constituent of the Hang Seng Corporate Sustainability Benchmark Index and Hang Seng ESG 50 Index, and won the first prize in CCTV China ESG Listed Company Greater Bay Area Pioneer 50.



CR Power has won several honors

# **Key Performance in 2023**





# Sustainable development management

CR Power is committed to strengthening sustainable development management, continuously deepening the awareness of social responsibility, improving the sustainable development management system, fostering communication and engagement with stakeholders, and excelling in screening analysis and information disclosure on substantive issues, promoting the Company to achieve comprehensive, coordinated and sustainable development and ultimately creating greater value for society.

# Sustainable development management system

CR Power continues to improve the four-level social responsibility/sustainable development governance structure, providing a solid organizational guarantee for sustainable development.

### **Statement of the Board of Directors**

The Board of Directors prioritizes sustainable development management and assumes overall responsibility for CR Power's ESG programs. The Board oversees the Company's ESG directions and strategies, identifies, evaluates, and manages material business-related ESG risks, receives 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 "empowering green development and creating a low-carbon life together" as its enterprise mission. To maximize the aggregate economic, social, and environmental benefits, the Company has built a social responsibility management model, and formulated, implemented, and continuously improved the *CR Power Social Responsibility Program Management Standards*, integrating the concept of sustainable development into the Company's strategic planning, corporate governance, and business operations in an all-round way. 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. It aims to strengthen the Company's sustainable development ability and promote the standardized and systematic development of sustainable development work.

The Board of Directors established the Sustainability Committee in 2012 to assist the Board of Directors in supervising and managing the implementation of the Company's sustainable development policies and measures, review and advise the Board of Directors on sustainable development-related policies and performance, and properly manage the Company's sustainable development risks. In 2023, a total of 11 issues of *CR Power Monthly Public Sentiment and Social Responsibility Reports* were submitted to the Board of Directors. One sustainability meeting attended by the Senior Management and 13 sustainability work conferences attended by the Company's middle and senior management were held to give full play to the supervision and governance effectiveness of the committee.



Governance Strue	cture >	Main responsibilities
Leadership Team:	Sustainability Committee	<ul> <li>Reviewing CR Power's sustainable development goals and plans and overseeing the implementation of such goals and plans;</li> <li>Assessing CR Power's adequacy of resources, compliance, and effectiveness of procedures in environment, health, and safety (EHS);</li> <li>Assessing the risks and opportunities faced by CR Power in fulfilling social responsibility and sustainable development;</li> <li>Reviewing CR Power's performance in EHS, social responsibility, and sustainable development;</li> <li>Assessing how CR Power differs from its domestic and foreign peers in sustainability policies and performance;</li> <li>Assessing the impact of CR Power's business on employees, third parties, local communities, and corporate reputation; and</li> <li>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.</li> </ul>
Guidance Team:	Social Responsibility Steering Committee	<ul> <li>Studying CR Power's strategies on social responsibility programs;</li> <li>Studying and approving CR Power strategic plans, major rules, and annual plans and reports on social responsibility; and</li> <li>Studying and approving CR Power's major issues on social responsibility.</li> </ul>
Coordination Team:	Administrative Office of Headquarters	<ul> <li>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;</li> <li>Organizing the preparation of CR Power's annual sustainable development reports;</li> <li>Developing sound rules and indicator systems for CR Power's social responsibility programs; conducting performance assessment; and organizing best practice recognition programs;</li> <li>Guiding affiliates' social responsibility efforts and promoting social responsibility initiatives;</li> <li>Organizing studies, training, communications, and other day-to-day management affairs concerning CR Power's social responsibility programs;</li> <li>Overseeing corporate governance, information disclosure, media relations, brand management, poverty alleviation, public welfare, and other work; and</li> <li>Regularly updating the Sustainability Committee under the Board of Directors on CR Power's social responsibility achievements.</li> </ul>
team:	departments and offices of the headquarters; regions, regional companies, directly controlled units and Chongqing Energy Investment Group	<ul> <li>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;</li> <li>Making social responsibility plans as delegated by regional companies; promoting responsibility integration; introducing innovative responsibility practices; and enhancing responsibility performance capacity;</li> <li>Submitting information on social responsibility reports as required by the Company; and</li> <li>Broadcasting their social responsibility achievements and performance, and strengthening communication with stakeholders.</li> </ul>

### **Managing Performance**

Under the guidance of the Sustainability Committee, we developed an overall plan for ESG management and practice and carried out sustainable development work in a coordinated manner. By disclosing outstanding social responsibility practices, we strengthened communication and exchange with stakeholders, made targeted responses to issues concerned by the market, and promoted the steady improvement of sustainable development management performance and dissemination level.

In 2023, by outstanding social responsibility practices, we ranked second among the "ESG Pioneer 100 Index" constituents under the Central SOE Series selected by the SASAC and the China Social Responsibility 100 Forum (CSR Forum). We also won second place in the list of "China ESG Listed Company Pioneer 100" jointly released by the Financial Program Center of China Media Group, SASAC, All-China Federation of Industry and Commerce, Institute of Economics of Chinese Academy of Social Sciences, and China Enterprise Reform and Development Society and first place in the list of "China ESG Listed Companies Pioneer 50 in Greater Bay Area".

Other awards include the honorary title of "CSR Benniu Award for ESG Pioneering Enterprise in 2023" issued by CSR Forum and CSR Institute, first 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, Corporate Green Governance Award – Corporate Leadership, Environmental, Health and Safety Award – Silver, Environmental, Health and Safety Award – Bronze, etc. In addition, five of our subsidiaries were awarded the 2023 Excellent Cases of Corporate Social Responsibility in the Power Industry by China Electricity Council.

In the capital market, we have been selected as a constituent of the Hang Seng Corporate Sustainability Benchmark Index and the Hang Seng ESG 50 Index for four consecutive years, with an MSCI ESG rating of BBB.

In addition, we also actively communicated with all sectors of society and shared our practical experience in the field of sustainable development. In 2023, the Vice Chairman of the Board of Directors was invited to attend the "ESG China Forum 2023 Guangzhou Summit" and delivered a keynote speech on "Green Energy Moistens Life", introducing the Company's ESG development management experience and practice, and jointly promoting sustainable development with all parties in society.



# Stakeholder engagement

CR Power has maintained close daily communication with stakeholders. Through an effective communication mechanism and diversified communication channels, CR Power has listened to the opinions and suggestions of all parties, and protected stakeholders' right to know and participate, so as to enhance their understanding and sense of identity with the Company; At the same time, CR Power has integrated stakeholders' expectations and concerns for the Company into corporate strategy and operations management, continuously optimizing and improving sustainable development management and working together with all stakeholders to achieve sustainability.

Stakeholders	Main Concerns	Engagement Methods	Responses
Government and regulators	<ul> <li>Legal and regulatory compliance</li> <li>Work safety and environmental protection</li> <li>Economic development promotion</li> <li>Tax payment</li> <li>Job creation</li> <li>Corporate stability</li> </ul>	<ul> <li>Formulation of rules and policies</li> <li>Strategic cooperation</li> <li>Information submission</li> <li>Work reports</li> <li>Statistics reports</li> </ul>	<ul> <li>We promoted the in-depth implementation of "general supervision" and carried out special supervision in response to the high integrity risks in new energy construction and rural revitalization. We continuously deepened the special rectification of reliance on enterprises for personal gains</li> <li>Published 1,019 integrity articles and news reports</li> <li>Complied with national environmental standards</li> <li>Implemented the CR Power Action Plan for Achieving Carbon Peaking and Carbon Neutrality in response to the national's dual carbon goals</li> </ul>
Shareholders and investors	<ul> <li>Corporate governance</li> <li>ESG performance</li> <li>Performance growth</li> <li>Dividend distribution</li> <li>Investor relations</li> <li>Stock performance</li> <li>Carbon emission reduction goal and plan</li> </ul>	<ul> <li>Shareholder meetings</li> <li>Information disclosure</li> <li>Email and telephone inquiries</li> <li>On-site visits</li> <li>Roadshows</li> <li>One-on-one meetings</li> </ul>	<ul> <li>Organized and participated in more than 120 investor exchange meetings, communicated with nearly 1,200 people</li> <li>Organized nine investment bank analysts for reverse roadshow</li> </ul>
Employees	<ul> <li>Legitimate rights and interests</li> <li>Remuneration and benefits</li> <li>Career development</li> <li>Training</li> <li>Occupational health and working environment</li> <li>Employee care</li> </ul>	<ul> <li>Employee representative meetings</li> <li>Employee suggestions</li> <li>Intranet and public- facing websites</li> <li>Seminars, networking, and other activities</li> </ul>	<ul> <li>Hired 1,078 new employees</li> <li>Ensured 100% coverage of employee training rate</li> <li>Provided 596,964 hours of safety training for employees</li> <li>Achieved 100% rectification rate for identified safety hazards</li> </ul>

Stakeholders	Main Concerns	Engagement Methods	Responses
Customers	<ul> <li>Supply of safe and stable electricity, heat, and cold energy</li> <li>Customer services</li> <li>Clean energy</li> </ul>	<ul> <li>Agreements/ contracts</li> <li>Customer meetings</li> <li>Satisfaction surveys</li> <li>Customer care activities</li> </ul>	<ul> <li>Provided adequate, reliable, and eco-friendly energy such as power, heat, cooling, and coal, with the Company's operating power generation of 250,157 GWh</li> <li>Contributed to carbon trading and green power trading</li> <li>Conducted satisfaction surveys to improve customer satisfaction</li> </ul>
Partners	<ul> <li>Contract compliance and mutual trust</li> <li>Equal and long-term cooperation</li> <li>Mutual benefits</li> </ul>	<ul> <li>High-level meetings</li> <li>Agreements/ contracts</li> <li>Products and services</li> </ul>	<ul> <li>Achieved a 100% certification rate for three-standard system certification for suppliers</li> <li>Achieved a 100% responsible procurement rate</li> <li>Maintained a 100% economic contract performance rate</li> <li>Provided 1,419,019 hours of safety training for stakeholders</li> </ul>
Communities and environment	<ul> <li>Environmental protection</li> <li>Safety and stability</li> <li>Harmonious community</li> <li>Charity programs</li> <li>Public relations</li> </ul>	<ul> <li>Philanthropic events</li> <li>Community building</li> </ul>	<ul> <li>Facilitated carbon capture, utilization, and storage (CCUS) projects, with 35,000 tons of high-purity carbon dioxide being captured</li> <li>Clean energy generation reached 46,250.59 million kWh</li> <li>Completed 2.77 billion kWh of green electricity</li> <li>Made a public welfare investment of about RMB49.89 million</li> <li>Had 2,016 employees participate in volunteer services</li> </ul>
Media and NGOs	<ul> <li>Information disclosure</li> <li>Interaction with media</li> <li>Contribution to NGOs</li> <li>Impact on sustainable development</li> </ul>	<ul> <li>Activity organization</li> <li>On-site visits</li> <li>Information disclosure</li> </ul>	<ul> <li>We organized the "Lighting up You and Me, Lighting up the Future" open event to the public for a month and received more than 2,000 persons in visits.</li> <li>Cooperated with hi-tech companies, universities, research institutes, and local governments</li> </ul>

## Management of materiality issues

### Management of 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 sustainable development management of CR Power.



### Formation of materiality issues database

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 formed a database for materiality issues.

- **Policy trend analysis:** The Company tracked national macro policies, conducted in-depth research on national and provincial policies and regulations, and analyzed sustainability trends of the energy and power industries in light of policies and regulations governing 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 formulated a capital market information database and summarized capital market concerns with 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 sustainable development 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.

### Stakeholder survey

Based on the above analyses, the Company identified 29 issues that have a material impact on CR Power, including 11 environmental issues, 12 social issues, and 6 governance issues. It also invited internal and external stakeholders via an online questionnaires to evaluate the materiality of the 29 issues from their perspective and comment on CR Power's existing sustainability strategies, performance, reporting methods, and disclosure quality.

In 2023, 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 has collected and analyzed the scores and the assigned risk-based weightings to the issues, and formed a two-dimensional representation of the materiality issues i.e. 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.



### Substantive Issue Matrix of CR Power's 2023 Sustainable Development Report

### Issues

- 1 "Carbon Peaking and Carbon Neutrality" Plan and Goals
- 2 Carbon Asset Management
- 3 Integrated Energy Services
- 4 Reduction of Emission of Waste Gas Pollutants
- Disposal and Utilization of WastesComprehensive Utilization of Water
- Resources
- 7 Development of Clean Energy
- 8 Biodiversity Protection
- 9 Response to Climate Change Risks
- 10 Environmental Control and Compliance
- 11 Environmental Protection Technology
- 12 Work Safety and Occupational Health
- 13 Training and Development of Employees14 Employees' Rights and Interests and
- Care for Employees
- 15 Supply Chain Management

- Optimization of Customer Service
   Provision of Safe and Stable Electric Heat Energy
- 18 Intellectual Property Protection
- 19 Protection of Data Privacy and Security
- 20 Community Service and Charity
- 21 Promotion of Rural Revitalization
- 22 Technological Innovation and Transformation Development
- 23 Industry Cooperation and Progress
- 24 Sustainable Development Planning
- 25 Compliance Operation and Risk Management
- 26 Response to National Policies
- 27 Protection of Shareholders' Rights and Interests
- 28 Maintenance of Market Environment
- 29 Anti-corruption

### **Report Preparation Process**

The Company took the Sustainable Development Report as a carrier to present a comprehensive, objective, and detailed presentation of its sustainability philosophy, practices, and performance to all stakeholders to improve their awareness of and trust in the Company's sustainable development work. To this end, the Company's Board of Directors 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 the 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.

Objective formulation
Report preparation team training
Material collection
Report preparation
Report review
Review
Assurance and rating
Report dissemination, feedback, and improvement



Responsibility

# "Carbon Neutrality and Rural Revitalization Integration" —Increasing Value in Serving National Strategies

Comprehensively promoting rural revitalization and achieving the "carbon peaking and carbon neutrality" goals can serve as an important part of the national strategy and a key part of the Chinese path to modernization. At the same time, the achievement of "carbon peaking and carbon neutrality" goals is an important commitment to global climate change challenges and concerns the common future of mankind. CR Power always shoulder its responsibilities as a state-owned enterprise, actively served the overall situation of the country and people's livelihood, deeply implemented the national strategy of rural revitalization and "carbon peaking and carbon neutrality", and contributed to the realization of the national development strategic goals.

# Accurate grasp and implementation promotion

In recent years, new ecological agricultural projects such as "photovoltaic agriculture", "paddy field ecological agriculture", and "high-tech ecological agricultural parks" have emerged continuously, which have become the epitome of the integration of rural revitalization and "carbon peaking and carbon neutrality" strategies. CR Power seizes new development opportunities and relies on its business development advantages to accelerate the implementation of a new energy system and promote the organic connection and coordinated implementation of two major strategies, namely, rural revitalization and "carbon neutrality".

In 2021, CR Power took the opportunity to promote the implementation of the strategic cooperation framework agreement between China Resources Group and the Hubei Provincial People's Government. Based on its needs for strategic transformation during the 14th Five-Year Plan period, it made full use of the comprehensive advantages of China Resources Group in multiple business formats and brought forward a plan to build a rural revitalization demonstration zone along the Yangtze River Economic Belt in Chibi. Subsequently, it successfully signed a cooperation framework agreement with the Xianning Municipal People's Government to jointly build the China Resources • Chibi Rural Revitalization Demonstration Zone along the Yangtze River Economic Belt (hereinafter referred to as the "Demonstration Zone"). In 2023, Chibi was included on the list of national rural revitalization demonstration counties.



# International standards and innovation demonstration

Based on the international standards, the Demonstration Zone will build itself into a rural revitalization demonstration zone and a national model with China's most cutting-edge models of "ecology as the foundation, industry as the core, culture as the soul, and wisdom and diversity", it will develop a green industrial ecosystem integrating clean energy, ecological agriculture, water system management, circular economy, logistics, and shipping, explore the development path of modern rural agriculture, innovate the "enterprise+government cooperation win-win mode", and establish a national high-standard future rural development demonstration zone, a high-quality green rural development demonstration zone along the Yangtze River Economic Belt, and a characteristic growth pole supporting the rise of central China at a high starting point in Chibi.



### Promoting the construction of the million-level new energy base as a whole

The Company has steadily promoted the construction of China Resources Chibi Million-level New Energy Base. The total installed capacity of the base reaches 1,600MW, and 430MW has been put into commercial operation. Its construction is a key step in building a "clean, low-carbon, safe, and efficient" clean energy system.





## Innovating explorations to promote agricultural and rural modernization

In the planning and construction of the Demonstration Zone, we adhere to the advanced concept of coordinated development of diversified industries and actively explore "PV+" innovative development models such as fishery-PV and agricultural-PV complementary development. It will not only meets the dual needs of environmental protection and industrial upgrading but also strives to achieve a win-win situation among the government, enterprises, and local people, providing a useful experience for new energy construction to facilitate rural revitalization. After the completion of the project, about 150 jobs will be provided. It is of great significance for improving the local employment rate and promoting local economic development. In 2023, we completed the construction of the Riyao modern industrial park. At present, we are carrying out preliminary preparations for production and operation in an orderly manner to ensure that the project can be put into operation as soon as possible to maximize its economic and social benefits.



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### Strengthening governance to facilitate water ecological environment restoration

We adhere to the principle of "giving priority to lowcarbon development and environmental protection", put ecological environment protection in a prominent position, strengthen ecological environment governance, and actively promote the construction of the Riyao water system management project. Besides significantly improving the water environment quality of the Canghu Lake basin, this project can also provide a solid guarantee for the water quality in the region to reach Class IV standards within three years and finally reach Class III standards. It not only comprehensively improves the water quality in the region but also effectively promotes environmental protection in the Yangtze River basin.



### Utilizing resources to create a circular economy ecosystem

We have efficiently integrated and developed the rich limestone resources in Chibi and promoted the implementation of mine infrastructure, aggregate processing production lines, external strap corridors, and other projects as a whole. The project can be built into a desulfurizer supply guarantee base for thermal power units of CR Power along the Yangtze River. At the same time, it can make full use of by-products generated from thermal power generation for deep processing to realize resource recycling and reuse and form a green circular economy ecosystem.

## Upgrading the scale to gather new momentum for the logistics industry

In addition to social and ecological benefits, the economic benefits represented by the agglomeration effect of the logistics industry brought about by the construction of the Demonstration Zone will also be significantly improved. After the completion of the project, the tonnage of navigable ships on the Lushui River will be upgraded from the current 500 tons to 3,000 tons, and the cargo throughput of the Chebu wharf will be expanded from the current 5 million tons/year to 25 million tons/year, which will greatly improve the freight capacity of the river. A logistics industrial park will be built behind the Chebu wharf to provide warehousing services. The Lushui River Chebu port area will become an important water transportation distribution center serving Chibi and its surrounding areas, making an important contribution to the prosperity and development of local economy.

Responsibility

# "Pioneer of Carbon Reduction" ——Offering Integrated Energy Services for Better Urban Life

Roofs of the 48,000-square-meter warehouses are covered with PV panels. The water storage air conditioning system stores energy during off-peak hours of electricity consumption and cyclically releases energy during peak hours. The stored rainwater is used for greening irrigation and road flushing through the recycling system. Charging piles can be seen everywhere in the park to meet the park's charging needs at any time. This is a daily scene that people can see when walking into the Low-carbon Logistics Park of CR Vanguard Fenggang Distribution Center.

Through the application of a number of lowcarbon technologies, the average annual electricity consumption of the distribution center reached about 4,800,000 kWh. The distributed PV system can provide 3,579,600 kWh of electricity a year, reducing 2,283.43 tons of carbon dioxide annually, which is expected to meet more than 80% of the carbon reduction demand. This is the unique charm of integrated energy services.



### To make zero-carbon development a reality through integrated energy utilization

In November 2023, China Resources Power Dalian Leduhui Zero Carbon Commercial Center Project was officially launched, which will become the first zero-carbon commercial center in Dalian. The project provides clean and renewable energy for the shopping mall by installing photovoltaics on its roof and building a PV power station, with an estimated average annual power generation capacity of 715,000 kWh. A charging station with 16 fast charging piles will be built in the outdoor parking lot of the shopping mall. The estimated annual charging capacity is 940,000 kWh, which can replace 109,100 liters of fuel oil. Besides, through the energysaving technical renovation of auxiliary equipment in the shopping mall, the auxiliary equipment such as air conditioners, lighting and elevators will be upgraded to improve energy utilization efficiency and reduce energy consumption and operating costs. After the renovation, the shopping mall saves 223,500 kWh of electricity every year. After the completion of the project, it is expected to reduce carbon dioxide emissions by more than 1,700 tons and save standard coal by more than 800 tons per year. While providing a comfortable and green shopping environment for people, it can also truly realize zero-carbon development.

In addition, to encourage citizens to actively participate in low-carbon actions, the project will develop carbon inclusive applications in the future, and give corresponding rewards and concessions according to the emission reduction achieved through walking, cycling or using public transport means, so as to encourage more people to choose environmentally friendly travel modes and share a green and healthy life.



With the transition of China's economy to high-quality development, accelerated energy transformation and the proposal of carbon peaking and carbon neutrality goals, it is imperative to develop green and low-carbon energy and power. As a powerful way to advance low-carbon transformation of the energy industry, integrated energy services are also an important way to improve energy efficiency and reduce energy consumption costs. The market demand for such services is growing rapidly. CR Power actively lays out the integrated energy business, and lifts the integrated energy development to the strategic level. Based on its own rich experience and advanced technologies, CR Power focuses on energy conservation and carbon reduction application scenarios such as enterprises and parks, continuously improves the integrated energy management level, and creates integrated energy services with its own characteristics. By the end of 2023, the company's integrated energy business revenue exceeded RMB1.5 billion, with remarkable achievements in the fields of energy storage, distributed PV, efficient cooling and heating, zero-carbon park construction, etc. The annual supply of green power was about 360 million kWh, which can save about 108,000 tons of standard coal every year and reduce carbon dioxide emissions by about 205,000 tons, actively empowering the construction of low-carbon cities and contributing to the realization of China's carbon peaking and carbon neutrality goals.

## To support power grids by sharing energy storage technologies

In March 2023, CR Power officially launched the 200 MW/400 MWh New Energy Sharing Energy Storage Power Station Project of CR Power Haiyuan CR Substation (330 kV) in Zhengqi Township, Haiyuan County, Ningxia. The project adopts lithium iron phosphate electrochemical energy storage technology and is equipped with 80 energy storage units, with a total configuration capacity of 200 MW/400 MWh. It is the largest energy storage project of CR Power in Ningxia. The project has been connected to the grid in June 2023 and put into commercial operation in September. It adopts an advanced energy management monitoring system to realize operation with no or few personnel on duty, and the charging and discharging efficiency of the energy storage system reaches 92%.

The project provides important support for the stability of Ningxia's power grids through flexible power output. Since the project was put into operation, the number of equivalent calls in a single month has exceeded 25 times by means of capacity leasing and participation in electric auxiliary services, and the monthly peak-shaving charging/ discharging capacity has exceeded 10 million kWh, which has effectively enhanced the stability of the power system in larger areas where renewable energy is connected, provided important support for the power grids, and helped alleviate the phenomenon of abandoning wind and PV power in the region.



## To intelligently and efficiently reduce consumption based on energy trusteeship services

Since the government office building located at No. 1 Fuqian Road, Dantu District, Zhenjiang City was officially put into use in 2002, it has gradually encountered problems such as equipment aging and low energy efficiency. There is no frequency conversion control or automatic control system for the air-conditioning water pump in the building. There are also problems such as oversized air-conditioning systems, poor insulation of outdoor pipelines, and the absence of an energy management system.

To solve the above difficulties, CR Power began to provide energy trusteeship services for the office building of Dantu District Administration Center in September 2023. The services improve the energy efficiency of equipment and facilities, realize efficient, clean, intelligent and digital energy utilization, and gradually reduce integrated energy consumption by implementing a package of energy solutions for specialized technology and management, adopting energy performance contracting, making use of the latest new energy and information technology development achievements at home and abroad, coordinating work to promote the energy system transformation of Dantu District's government building, reasonably regulating operation strategies, strengthening daily management supervision, etc. It is estimated that the annual energy saving can reach more than 7%, which not only meets the requirements of national and local building energy-saving planning and policies, but also plays a demonstration role in energy conservation and carbon reduction for public institutions nationwide.

# Leading Low-carbon Development Through Wind Power and PV Projects

## Challenges

In December 2023, more than 190 parties to the *United Nations Framework Convention on Climate Change*, including China, agreed to phase out fossil energy, making the need for power system upgrading even more urgent. With the continuous development of economy and the continuous growth of electricity consumption in the whole society, energy service provides are facing the double pressure of meeting the growing demand for electricity without increasing carbon emissions.

## Actions

- Actively respond to climate change, carry out climate scenario analyses, identify the impact of major climate risks on the Company's business, and formulate climate action plans.
- Strive for in-depth development and utilization of clean energy resources, as well as layout and planning for the development of wind power, PV, hydropower and other clean energy resources.
- Devote to the innovative application of low-carbon and environmental protection technologies, and continuously increase the research and development (R&D) of green technologies.
- Promote energy-saving technologies and equipment transformation, strengthen the recycling of water resources, reduce the discharge of "three wastes" and realize efficient resource utilization.
- Establish a sound environmental management system, carry out environmental protection actions, and continuously strengthen our own environmental protection ability.

### SDGs





## Main performance

Proportion of installed clean energy accounts for

37.8%



Investment in energy-saving and emission-reduction technology transformation:

RMB 1,468 million

Smoke emission rate:

0.01 g/kWh



# More proactive climate action

Climate change is a common challenge for all mankind. There is still a long way to go in addressing climate change, which requires global participation and concerted efforts. It has become the inevitable responsibility of enterprises to control and reduce greenhouse gas emissions. It is incumbent upon us to act as corporate citizens to develop a range of more proactive climate action strategies to address the challenges of climate change.

### Climate action program process

Year

2021

Year

2022

Year

2023

Since 2021, we have disclosed climate-related work plans and achievements with reference to the recommended framework of the Task Force on Climate-related Financial Disclosures (TCFD) to improve governance performance on climate-related issues. In 2023, we further enriched and adjusted climate-related information disclosure specifications in accordance with the Guidance on Climate Disclosures issued by Hong Kong Exchanges and Clearing Limited (HKEX) to respond to regulatory requirements and investors' growing concerns about the impact of climate change.

Disclosure was made from four aspects: the governance mechanism, coping strategy, risk management, and climate-related work plans and results.

We disclosed the Company's governance mechanism for climate change.

In combination with the actual situation of the Company, we disclosed climate scenario analyses, including climate risk identification, impacts and responses, and formulate climate action plans.

### **Regulatory framework for climate-related risks**

### Climate change governance structure:

Under the Board of Directors of the Company there is a Sustainability Committee, which is mainly responsible for assisting the Board in supervising, reviewing and handling policies, measures and related performance targets related to sustainable development including climate change. The Sustainability Committee is chaired by an independent non-executive director, with the majority of members being independent non-executive directors.

## Climate change management procedure:

Climate change-related matters are directly managed by the Sustainability Committee, which comprises the Guidance Team, Coordination Team and Implementation Team. The Sustainability Committee holds at least one meeting a year to discuss climate change-related matters and report them regularly to the Board of Directors for deliberation.

### Practice::

In 2023, the Company's Board of Directors oversaw climate-related topics and risks during board meetings and ensured that they are integrated into the Company's strategy. In accordance with climate-related policies, members of the Sustainability Committee met to identify, assess, monitor and report climate-related issues, and actively promoted the implementation of the phased goals of carbon peaking and carbon neutrality (dual carbon goals), laying a solid foundation to tackle climate change.

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### **Climate scenario analyses**

The climate change impacts on the Company and its severity can change over time. Based on different scenarios, we analyze the potential impacts and opportunities brought by climate change to the future development of the energy industry, so as to lay a foundation for the Company's green and low-carbon transition and sustainable development strategy. To better understand the potential impacts of climate change on us, with reference to HKEX's *Guidance on Climate Disclosures* and based on the scenario overview published by the UN Intergovernmental Panel on Climate Change (IPCC) and International Energy Agency (IEA), we have conducted an analysis of the climate scenario by 2030 and by 2050 according to the following two paths:

Turquoise scenario	RCP2.6, SSP1, and IEA Sustainable Development Scenario (SDS) complemented by the Net Zero Emissions by 2050 Scenario
Brown scenario	RCP8.5, SSP5 and IEA Stated Policies Scenario (SPS)

Note: 1. RCP2.6, RCP8.5 and SSP5 are strict and high-emissions Representative Concentration Pathways (RCPs) of the IPCC;

2. SSP1 and SSP5 are strict and high-emissions Shared Socio-economic Pathways (SSPs) of the IPCC.

The scope of the scenario analyses includes all businesses under our operational control. Based on the above two scenarios, we analyze future climate change, social environment, energy mix and power mix, fuel changes, etc. We select average global warming, extreme weather, climate policies, carbon prices, renewable energy and other factors as key parameters of climate policies.

### **A. Physical scenarios**

	Turquoise scenario	Brown scenario	
Average global warming	About 1.7°C by 2060 and about 1.8°C by 2100	About 2.4°C by 2060 and 4.4°C by 2100	
Global average sea level rise	Possibly 0.3 m by 2065 and 0.5 m by 2100	Possibly 0.4 m by 2065 and 0.8 m by 2100	
Impacts of climate change	Relatively stable	Significant (increased frequency and severity of floods, extreme weather, etc.)	

## **B.** Transition scenarios

	Turquoise scenario	Brown scenario	
Economic development	The economic development will become more inclusive, scientific and sustainable.	Fossil fuels will drive economic growth and technological progress, leading to very high levels of greenhouse gas emissions by 2100 and exacerbating extreme weather events.	
Climate policies	Several countries have pledged to achieve net- zero carbon emissions by 2050, and they have set detailed targets and made action plans. China promises to achieve peak carbon emissions by 2030 and carbon neutrality by 2060.	Institutional, political and economic barriers have led to a lack of new climate policies.	
Energy development trend	The share of electricity in final energy consumption will rise from 20% to 28% by 2030 and 52% by 2050. Overall, the installed capacity of renewable energy will be more than 4 times that in 2021 by 2030, and its share of power generation will exceed 60%. By 2050, the share of renewable energy power generation in total power generation will reach 88%. The share of fossil fuel power generation in total power generation will decline from 62% in 2021 to 26% by 2030.	The share of fossil fuels in the global energy mix will decline from 80% to 75% by 2030 and 60% by 2050. Coal demand will peak in the next few years; natural gas demand will increase by about 5% between 2021 and 2030, after which it will stabilize; oil demand will peak in the mid-2030s before declining slightly thereafter; and nuclear energy's share of the energy mix will be essentially the same as today.	
Policy implementation	The government implements strict policies to deal with climate change, and the implementation difficulty is low.	There is a lack of detailed plans and action programs to tackle climate change.	
Economic driving force	The economic driving force transitions from fossil fuels to renewable energy.	A profit-driven business model forms, which fails to properly consider environmental and social impacts.	
Commitment level	Enterprises are committed to contributing to national and regional climate action targets, with business partners working together to drive low- carbon operations.	Insufficient public awareness makes it difficult to implement corresponding climate policies and systems.	

### Climate risk identification, impacts and response

We followed the disclosure procedures in the Guidance on Climate Disclosures issued by HKEX to determine the Company's climate risk management process, and identified and analyzed climate risks according to the framework of "climate-related risks, opportunities and financial impacts" proposed by TCFD. Our Sustainability Committee reviewed risks at the industry level by reviewing materials published by peers, communicating with practitioners responsible for risk management and sustainable development, conducting industry commentaries, web searches and internal and external audits, etc. Subsequently, a meeting was hold to convene the management of different departments to further identify climate-related risks. During the meeting, industry-level risk review, importance assessment results and selected scenarios were introduced in combination with analyses of domestic and foreign climate change-related policies, power system development trends, CR Power's current situation and other aspects, and a risk list was formulated. For the risk content after assessment and deliberation, we will put forward corresponding response strategies in combination with the Company's existing businesses, make risk deployment in advance, and lay a foundation for future monetization disclosure of climate risks according to guidelines of HKEX and the International Sustainability Standards Board (ISSB).

From these initiatives, we have identified the following list of material climate-related risks:

- Policy changes made to achieve the dual carbon goals;
- Technology-related risks;
- Market-related risks;
- Increased severity of extreme weather events.



### Climate-related risks, opportunities and financial impacts

We assess the impact of material risks on the Company's businesses and relevance to specific business functions by developing scenario analyses and climate-related risk identification. We have identified a series of climate-related risks and opportunities related to assets and services in its main market from these scenario changes, and aligned this with each link in the value chain. Afterward, the Company assessed the impacts of identified climate-related risks on each link in its value chain.

Types of climate risks		of climate risks	Risk/Opportunity description	Financial Items	
		Policies and laws	<ul> <li>The proposal of the national initiatives to reach peak carbon emissions and the implementation of the carbon trading mechanism for enterprises with national emission control targets;</li> <li>With the gradual advancement of the dual carbon goals, relevant national policies and requirements have changed.</li> </ul>	<ul><li>Revenue</li><li>Operating expenses</li><li>Assets</li></ul>	
	Transition risks	Technologies	<ul> <li>Strict requirements for clean and efficient transformation technologies of stock coal-fired power;</li> <li>Strict requirements for grid-connected stable consumption of new energy projects;</li> <li>Local policies have been issued to require that new energy projects must be equipped with corresponding proportion of energy storage, but there are still obstacles to the development of new energy storage technologies;</li> <li>There are still obstacles to the development of large-scale hydrogen energy utilization technologies.</li> </ul>	<ul><li> Revenue</li><li> Operating expenses</li><li> Assets</li></ul>	
		Markets	<ul> <li>The share of electricity generation from coal-fired thermal power units is reduced;</li> <li>The dual-carbon policy requires that the proportion of new energy power generation should be increased by a large margin;</li> <li>The trading rules of the electricity spot market have changed, and the requirements for carbon trading have increased.</li> </ul>	<ul><li>Revenue</li><li>Operating expenses</li><li>Assets</li></ul>	
	Physical risks	Extreme weather	• Extreme weather events, such as extreme high temperatures, floods, typhoons and droughts.	<ul> <li>Liabilities</li> <li>Operating expenses</li> <li>Assets</li> </ul>	
Impacts	Countermeasures				
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<ul> <li>Under the control requirements of policies, action programs and enterprises with national emission control targets, the overall development path of the Company needs to be adjusted, and each subordinate unit needs to change its development mode according to the local policy requirements;</li> <li>National initiatives to reach peak carbon emissions, differences between different regions in the policies of controlling the amount and intensity of energy consumption, changes in the rules of carbon emissions trading and the prices of carbon emission quotas over time, rules of green electricity trading, changes in new energy project development requirements, constraints of ecological environmental protection on project development, etc.; higher compliance costs for enterprises;</li> <li>The European Union has reached an agreement on carbon tariffs and continuously promoted the process of the international emission reduction system, which put forward higher requirements for low-carbon development of enterprises.</li> </ul>	<ul> <li>Formulate the development strategies, objectives and paths of the Company in the new stage to meet national policies and regulatory requirements;</li> <li>Take the initiative to connect with relevant local policy authorities, learn and understand the content of policies, analyze the main problems, contradictions and of guiding directions of policies in various regions, identify potential risk points, and reduce risks through standardized management;</li> <li>Stop adding new coal-fired generating units in key areas, and carry out transformation of coal-fired units through clean transition, efficiency improvement and consumption reduction;</li> <li>Accelerate the layout of the green energy industry and promote the development of PV, wind power, hydrogen energy and energy storage.</li> </ul>				
<ul> <li>Increase the technology R&amp;D costs in emerging fields such as breakthroughs in coal-fired power clean transformation technologies, new energy consumption technologies, energy storage technologies and hydrogen energy technologies;</li> <li>Increase the costs of cultivating professionals: Talent is the foundation of technological revolution, so the Company needs to establish and cultivate a team of professional technical personnel;</li> <li>Increase intangible assets of enterprises and prolong the service life of fixed assets through the R&amp;D of corresponding new technologies and patent acquisition.</li> </ul>	<ul> <li>Strictly control new coal-fired thermal power generation, make the coal consumption standard for new units reach the international advanced level, and advance efficient "three transformations" of coal-fired power, and play a supporting role in the process of safe substitution with new energy;</li> <li>Increase investment in scientific and technological innovation, strengthen the application of energy storage and hydrogen energy technologies, and explore more friendly solutions to new power systems;</li> <li>Strengthen enterprise-university-research institution cooperation, establish a cooperative research mode of resource sharing and technology sharing with enterprises, universities and research institutions, give full play to the resource advantages of other industries, and invest in technology R&amp;D.</li> </ul>				
<ul> <li>The constraints on carbon emissions imposed by the dual-carbon policy have led to a gradual shift in the role of thermal power units towards basic support and system regulation, decreasing available hours and increasing operating costs of coal-fired power;</li> <li>The investment and operating costs of new energy power generation technologies are still high, making it less economical;</li> <li>In the future, the allocation of carbon emission quotas will be gradually tightened and trading prices will gradually increase, putting forward higher requirements for carbon asset management;</li> <li>The spot market, carbon market trading and performance operating costs increase.</li> </ul>	<ul> <li>Carry out energy conservation, emission reduction, efficiency improvement and three major transformations of thermal power units to improve the economic efficiency and adaptability of the units;</li> <li>Vigorously increase the scale of PV, wind power and other renewable energy units, increase their proportion of power generation, extend the layout of the upstream industrial chain, and reduce investment in new energy power generation technologies and operating costs;</li> <li>Increase training on spot-price trading of electricity and the carbon market to improve the professional ability and technical level of employees.</li> <li>Establish scientific and rigorous system documents for the spot market and carbon trading market, strengthen process control and enhance carbon asset management.</li> </ul>				
<ul> <li>With global warming, extreme weather events, such as extreme high temperatures, extreme cold, rainstorms and floods, and typhoons, will increase, which poses challenges to the safety of CR Power's assets and the security of the power system;</li> <li>Extreme weather events cause damage to power generation facilities, increasing repair and infrastructure costs;</li> <li>Extreme droughts cause damage to water resources and seriously affect hydropower generation. They may also lead to unfavorable situations such as insufficient cooling water supply for power generation facilities, increasing costs or shutdown losses of enterprises;</li> <li>Extreme weather adversely affects upstream fuel suppliers and other parties, increasing systemic risks in the supply chain;</li> <li>The negative impacts of extreme climate change on the Company's power generation businesses also include the impact on the operation hours and overall reliability of hydropower, wind power, PV power, coal-fired thermal power, etc.</li> </ul>	<ul> <li>Use technical means to improve the ability in battery energy storage temperature safety management, offshore wind power typhoon resistance, and anti-icing of wind turbines in high risk areas;</li> <li>Formulate emergency plans for extreme weather, strengthen the investigation of hidden dangers based on information such as weather forecasts, and steadily ensure the safety of units and systems;</li> <li>Strengthen the management of suppliers, establish response plans under special circumstances, strengthen the construction of multi-channel supply chains, and ensure the strength and reliability of the supply chains;</li> <li>Reasonably adopt commercial insurance and other means to reduce possible losses caused by extreme weather;</li> <li>Optimize and adjust the Company's development mode, promote energy development transformation, fully consider the impact of climate change when selecting sites for power generation projects, and improve the adaptability to climate change.</li> </ul>				

According to the results of scenario analyses and the identification of climate-related risks, extreme weather events such as droughts, typhoons, floods, local high temperatures and local climatic shift caused by climate change have an impact on CR Power's power generation businesses, including reduced reliability of power generation facilities, fluctuation in power generation, increased difficulty in work safety and increased risks in related asset financial management. The specific impacts on the power generation businesses are shown in the following table:

Types of power generation businesses	Impact of climate change on the businesses
Thermal power generation	<ul> <li>Extreme weather adversely affects the upstream fuel supply, etc.;</li> <li>Extreme weather events such as typhoons cause damage to coastal thermal power generation facilities;</li> <li>Extreme droughts cause severe water shortage in some inland areas, and affect the normal operation of inland thermal power generation facilities.</li> </ul>
Wind power generation	<ul> <li>Extreme weather affects the local atmospheric environment, causing extreme instability of wind resources and affecting the normal operation of wind turbines; extreme cold causes a shutdown of wind turbines for their protection;</li> <li>Frequent typhoons, storms and other extreme weather events have a serious impact on the safe and stable operation of offshore wind turbines.</li> </ul>
PV power generation	<ul> <li>Extreme weather events such as extreme high temperatures in local areas adversely affect the power generation performance of PV inverters and PV modules;</li> <li>Local continued cloudy and rainy weather, sandstorms and other extreme weather events brought by climate change affect the performance of PV power generation, resulting in a decrease in PV power generation.</li> </ul>
Hydropower	<ul> <li>Climate change leads to abnormal rainwater resources and unusual floods and droughts in local areas, which deviate from historical predicted levels and seriously affect hydropower generation;</li> <li>Severe freezing weather causes serious damage to hydropower facilities.</li> </ul>
Energy storage	<ul> <li>The extreme impacts of climate change cause unstable power generation by renewable energy sources such as wind and PV. Therefore, it is necessary to increase the layout of energy storage stations;</li> <li>Extreme freezing temperatures in cold regions have a great impact on pumped storage power stations and bring potential safety hazards to units, hydraulic structures, gates, etc.</li> </ul>

# **Development of climate action plans**

We actively implement the dual carbon strategic deployment of the CPC Central Committee and the State Council, as well as the dual carbon work instructions of China Resources Group. In view of the climate scenarios, climate-related risks and opportunities and their countermeasures, we have formulated climate action plans, paths and annual progress reports in combination with the Company's strategic objectives.

# Targets by 2025



## Long-term targets

Before 2060, the Company will strive to achieve carbon neutrality.

## **Climate action plans**



# **Biodiversity conservation**

Protecting and restoring biodiversity is one of the most important strategies to cope with global climate change. We have always been in awe of nature and take biodiversity conservation, ecological environmental protection and soil erosion prevention as important indicators to measure the whole life cycle of projects including planning, design, construction, renovation, operation and maintenance.

#### **Biodiversity assessment**

All operation projects shall strictly implement the Water and Soil Conservation Law of the People's Republic of China, Regulations on Environmental Management of Construction Project and other national laws and policies: In the development stage of a new project, the relevant personnel should check whether there are protected species in the surrounding environment of the proposed plant site; in the project construction stage, they should pay attention to biodiversity protection and reduce the impact on biodiversity by means of transplanting, reseeding, and fish stocking of affected organisms; after the project is put into operation, they shall put continuous effort into biodiversity protection, such as carrying out fish stocking and building biodiversity conservation communities with local forestry bureaus and research institutes.

#### **Terrestrial biodiversity conservation**

In 2023, units at all levels actively carried out vegetation restoration and tree planting for soil fixation. About 121,795 trees of more than 30 species such as pines, syringa pubescens, caragana korshinskii, hippophae rhamnoides, prunus davidiana and hawthorn were planted in various localities. Vegetation restoration has been carried out in a total of 44 new energy construction projects in Inner Mongolia, Shanxi, Henan, Hubei, Jiangxi and other places, and about 6,533.42 mu of land has achieved ecological restoration.

In view of the ecological problems such as droughts and little rainfall, harsh natural environment, and serious soil erosion in Haiyuan County, Ningxia Hui Autonomous Region, we have promoted the construction of Haiyuan CR Ecological Public Welfare Forest Project to give full play to the ecological function of public welfare forests to conserve water resources, improve the local ecological environment and effectively prevent soil erosion. Up to now, 1,686 mu of ecological public welfare forests have been built.





**1,686** mu

ecological public welfare forests have been built

# Case

# Xishuangbanna Hydropower Project organizes fish stocking activities

In September, the Xishuangbanna Hydropower Project of CR Power Yunnan organized fish stocking activities to release nearly 300,000 fishes of seven species, including onychostoma sima, wallago attu, mystus nemurus, tor sinensis, hypsibarbus vernayi, hampala macrolepidota, and altigena laticeps, effectively supplementing economic fishes and rare aquatic organism population resources in the basin, improving the ecological environment of fishery waters, and playing an important role in strengthening the protection of aquatic biodiversity. The supporting fish stocking station of the Xishuangbanna Hydropower Project has achieved remarkable results in operation. Seven species of 12 objects for fish stocking required by the environmental impact assessment (EIA) have been successfully bred, among which onychostoma sima is the first successful artificially bred fish in China.



## Marine biodiversity conservation

With the continuous expansion of the Company's offshore businesses, we pay more attention to marine environmental protection and marine biodiversity conservation. Strict preventive and protective measures are taken for thermal power plants in coastal areas in all stages of feasibility study, design, construction and operation.



# More Sustainable Power Deployment



By the end of 2023, the Company's operating installed capacity was

**77,324** MW

Share of operating installed clean energy capacity

37.8%

On the way to achieving the dual carbon goals, CR Power closely focuses on the strategic direction of national energy layout and combines its own 14th five-year plan to vigorously develop clean energy, accelerate innovation in green technologies, empower and strengthen carbon asset management, actively lay out emerging businesses, and make every effort to create a more sustainable future of power.

# **Diversified clean energy resources**

During the 14th Five-Year Plan period, the Company aims to add 40 GW of renewable energy installed capacity, sounding the trumpet for great development. In this context, we actively devote ourselves to the in-depth development and utilization of clean energy resources, lay out and plan the construction of clean energy such as wind power, PV power and hydropower, and take the initiative to obtain renewable energy permits to gather strength for green and low-carbon development. In 2023, the Company's renewable energy projects that started construction reached 9,473 MW and grid-connected electricity generated by new energy being 6,958 MW; its clean energy power generation was 43,812,395 MWh, accounting for about 23% of the total power generation of the subsidiary power plants; the Company successfully obtained nearly 19,500 MW of renewable energy permits. By the end of 2023, the Company's operating installed capacity was 77,324 MW, of which clean energy accounted for 37.8%.

#### Centralized onshore wind power and PV:

We promote the local development and consumption of wind power and PV energy in eastern, central and southern regions, and advance the development of offshore wind power clusters and wind power and PV bases in Northern, Northeastern and North-western China regions; we strengthen resource acquisition, formulate medium- and long-term resource reserves and phased development plans to ensure the stability and sustainable development of energy supply.

E Case

# Xinjiang Luopu 100MW/400MWh Energy Storage Project full-capacity grid-connected power generation

In October 2023, CR Power Xinjiang's Luopu 100MW/400MWh Energy Storage Project and supporting 400MW PV Power Generation Project achieved full-capacity grid-connected power generation, which is a new breakthrough in new energy business in Xinjiang. It is expected to generate 769 million kWh of power annually. Compared with thermal power plants of the same scale, it can save 221,600 tons of standard coal and reduce 600,600 tons of carbon dioxide emissions every year.





#### Distributed PV and wind power:

Focusing on southeast China strategically, we facilitate collaborative innovation and comprehensive application of PV energy with agriculture, forestry, animal husbandry, fishery, transportation and ecological governance; we also promote the implementation of rooftop distributed PV projects and wind power projects in the whole county to advance optimization of the energy mix.



#### Offshore wind power:

Based on the strategic layout of offshore development and open sea encirclement, we focus on highquality resource reserves and accurate development of five major national offshore wind power bases to enhance the Company's industry leadership in the field of offshore wind power. In 2023, the Company obtained 4,250 MW of offshore wind power development permits in Guangdong, Fujian and Zhejiang, achieving an important breakthrough. E Case

# Promoting "PV+" and building "fishery-PV-tourism" integration projects

China Resources Caijin Hongguang Fishery 800MW Photovoltaic Project focuses on the comprehensive transformation of aquaculture ponds and salt ponds. It uses the existing water area and mudflat to carry out standardized pond design, lays solar panels on the surface of the aquaculture ponds, assembles modern facilities for fishery underwater, and forms a spectacular scenery line with large-scale PV arrays. It is built into a comprehensive demonstration base that can "generate electricity at the upper part, develop aquaculture at the lower part and give consideration to ecotourism". The project was completed in July 2023, with an estimated annual power generation of 1,121 million kWh, effectively replacing 379,200 tons of standard coal and reducing 902,000 tons of carbon dioxide emissions.



E Case

# CR Power obtains the development right of Guangdong's 1,000 MW offshore wind power project in the sea area under provincial jurisdiction

In 2023, in the competition for allocation of offshore wind power projects in the sea area under the jurisdiction of Guangdong Province in 2023, CR Power South China Region faced difficulties such as complex competition work, tight time schedule of preparation, a large number of competitors and poor operation performance within its jurisdiction. The Company's headquarters and regional branches closely cooperated to continuously optimize resource allocation and fully promoted the acquisition of offshore wind power resources in Guangdong. Finally, CR Power South China Region successfully obtained the development right of the 500 MW Shanwei Honghaiwan Fifth Offshore Wind Power Project (under provincial jurisdiction) and the 500 MW Yangjiang Sanshandao Fourth Offshore Wind Power Project (under provincial jurisdiction) in the competitive allocation work, achieving a breakthrough in Guangdong's offshore wind power businesses and laying an important foundation for the base-oriented large-scale development of the Company's clean energy businesses.



#### Hydropower:

We actively seek large and medium-sized hydropower merger and acquisition opportunities, adhere to the long-term resource layout in the field of pumped storage, strengthen cooperation with power grid enterprises, and give priority to the development of projects that can obtain new energy resources collaboratively in areas with high demand for power grid regulation.



the Company has captured more

than **35,000** tons of carbon dioxide using CCUS technologies

# **Cutting-edge green technologies**

The Company actively devotes itself to the innovative application of low-carbon and environmental protection technologies, continuously increases R&D of green technologies, transforms the research results into practical applications, and sets a model for the green development of the industry.

#### Carbon capture, utilization and storage (CCUS) technologies

The Company continues to promote the construction of the pilot platform for testing CCUS amine solution system with low energy consumption, strengthens R&D of organic amine solution absorbents, completes the construction acceptance of the pilot platform based on actual flue gas conditions and promotes its operation. Besides, it improves and optimizes the green technology combination and energy-saving process package such as the structured packing design, interstage cooling system, mechanical vapor recompression (MVR) efficiency and rich solution stage flow in the pilot platform, improving energy efficiency and enhancing the environmental friendliness of technologies. In addition, to solve the problem of high energy consumption in carbon dioxide capture by flue gas from coal-fired power plants, we start with R&D and screening of organic amine absorbents and the energy saving optimization of the carbon capture system. Through methods such as analysis and evaluation of test data on pilot platform and comprehensive analysis of energy consumption of the carbon capture system, we make full use of steam heat in desorption link to optimize the desorption environment of carbon dioxide and improve the desorption efficiency according to the principle of cascade utilization of energy. As of December 2023, the Company has captured more than 35,000 tons of carbon dioxide using CCUS technologies.

#### Integrated sludge disposal technologies

The Company has actively carried out the research on key technologies of integrated application of coupled sludge incineration and disposal in coal-fired power plants, completed the analysis on the influence of factors such as different proportions of sludge and coal mixing on ash melting characteristics and slagging characteristics, optimized the boiler sludge blending process through field tests, numerical simulation and other methods, deeply studied its influence law on boiler efficiency, built a blending characteristic and adaptive model on this basis, and completed the research on ultra-low emission of flue gas from sludge blending boiler and collaborative treatment technology of pollutants. Relevant technical achievements have formed a number of invention patents and utility model patents. In 2023, the Company's Research and Engineering Application of Key Technologies for Integrated Application of Coupled Sludge Incineration and Disposal in Large Coal-fired Power Plants won the second prize of the Chinese Society for Electrical Engineering in 2023, and it took the lead in compiling the first domestic group standard for sludge blending, i.e. Guidelines for Coal Coupled Sludge Power Generation Control Technology, to facilitate the green and low-carbon development of the industry.

## Active carbon asset management

The Company insists on ensuring proper carbon asset management and improving the standardization level of carbon asset management according to internal management systems such as Management Measures for Carbon Assets. It continues to advance the construction of a carbon asset management system, covering basic functions such as emission data collection, MRV and emission report preparation, and promote the realization of information-based management of carbon assets. It actively carries out carbon asset management training to enhance employees' professional knowledge of carbon asset management and improve their professional ability in carbon asset operation.

# E Case

#### CR Power holds a carbon asset management learning and exchange meeting

On August 29, 2023, CR Power organized the 2023 Carbon Asset Business Training and Carbon Quota Trading Collaborative Scheduling Meeting, inviting experts from China Beijing Green Exchange to give lectures on the latest policy trends of the carbon market, changes in trading rules, market progress under the China Certified Emission Reduction (CCER) scheme, green finance, and other topics, as well as internal experts to share their experience on carbon financial market exploration and carbon asset accounting and trading. At the same time, CR Power South China Region, North China Region, Northern Region and Chongqing Energy Investment Group discussed the coordinated trading of carbon quotas based on the overall principles of CR Power's carbon asset management regulations and market transaction prices, and finally determined the internal coordinated trading scheme, realizing the preservation and collaborative advantages of CR Power's carbon assets. The successful holding of this training meeting has laid a foundation for the improvement of business capabilities, carbon quota performance and internal coordination of all subordinate units, and also accumulated valuable experience for subsequent carbon asset management work.

In addition, carbon trading and green electricity trading play an important role in promoting the optimization and upgrading of the energy mix and achieving the goal of green and low-carbon development. The Company actively participated in the national carbon trading and green electricity trading, and all its 37 project companies participated in the national carbon market. It took the initiative to explore the carbon sink market and signed two long-term afforestation carbon sink projects to make full preparations for participating in carbon market trading in the future. In addition, we continue to expand the proportion of green electricity in enterprise energy procurement, promote green electricity consumption and facilitate the Company's green and low-carbon transformation. In 2023, the Company sold a total of 1.76 million tons of surplus carbon quota and realized an income of RMB135 million; it signed contracts with 180 green electricity users, with a year-on-year increase of 32%; 2.77 billion kWh of green electricity was traded, up 11%.



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**2.77** billion kWh of green electricity was traded

# **Emerging arenas with great potential**

The Company actively responds to the national energy strategy and the guiding opinions on further building a high-quality charging infrastructure system, accelerates the R&D and application of energy storage technologies, promotes the planning and construction of new energy sharing and user-side energy storage projects, actively lays out the charging pile market, focuses on social public charging stations dominated by DC fast-charging technologies, and continuously improves its competitiveness in the field of energy storage and charging pile business. By the end of 2023, the Company had operated a total of 13 public charging projects, with 433 charging terminals in total and a rated charging power of 24 MW. The annual cumulative charging capacity exceeded 15 million kWh.



the Company had operated a

total of **J** public charging projects



a rated charging power of **24** MW The annual cumulative charging capacity exceeded



# More efficient energy utilization

Under the increasingly stringent environmental protection regulations and market pressure, CR Power has closely focused on three key links, namely energy conservation and emission reduction, water resources management and "three wastes" discharge management, to promote energy-saving technology and equipment transformation, strengthen the recycling of water resources and reduce the discharge of "three wastes", with a view to achieving more efficient utilization of energy resources.

# Upgraded energy-saving transformation

Faced with the changes in two markets of electricity and coal and the influence of in-depth peak-shaving in North China, Northeast China, Central and West China and other regions, the Company continued to optimize energy-saving supervision, control and dispatching, promoted technological transformation projects for energy conservation and emission reduction, and took multiple measures to save energy and reduce consumption. In 2023, the Company's coal consumption was 297.17 g/kWh, with a year-on-year decrease of 0.08 g/kWh.



Strengthen the decomposition, monitoring, benchmarking and evaluation of coal consumption indicators for power supply

Conduct classified optimization of the unit operation mode

Optimize the heat supply mechanism

Promote the transformation of energy-saving and heating technologies dispatching", track the completion of coal consumption goals for power supply in real time, and do a good job in data analysis and closed-loop problem rectification. We optimize the operation mode of units, reduce coal consumption for power supply in the deeply adjusted segment, and enhance the operational level of

According to the annual target value of coal consumption for power supply, we implement the mechanisms of "one policy for one plant" and "monthly

supply in the deeply adjusted segment, and enhance the operational level of units and the overall management effectiveness of equipment by scientifically participating in in-depth peak-shaving and implementing strategies and measures such as transferring and outsourcing electricity from high-energy-consuming units.

Sort out the current situation of coal consumption for heating by heating units, carry out economic evaluation of heating, promote the optimization of the heating mode, reduce the throttling loss of heating under deep adjustment conditions, and promote the maximization of electricity benefit from heating.

We implement more than 20 technical transformation projects such as steam turbines, electrostatic precipitators, desulfurization absorption towers, furnace denitration flow fields, boiler wide load denitration to improve the energy efficiency of electric field units and effectively reduce coal consumption and pollutant emissions.

# **Rational water resources management**

Water is one of the key sustainability challenges facing the power sector. In order to reduce the dependence on water resources, the Company carries out water resource risk management, reduces water resource consumption, enhances awareness of water resource protection and systematically alleviates water resource pressure.

#### Assess water resource risks

Before building new coal-fired thermal power and other water consumption projects, we carry out risk assessment of water resources in advance, and determine the water intake source and process according to the assessment results. For example, in southern regions with abundant water resources, cooling towers' cooling process is adopted to make full use of natural water sources, while in northern water-deficient regions, air cooling towers' cooling process is adopted for cooling through air convection to reduce the use of fresh water.

#### **Reduce water resource consumption**

The Company has continuously strengthened water conservation in the process of business operation. In 2023, the fresh water consumption of the Company was 188,292,400 tons, with a year-on-year decrease of 1.03% per unit and a decrease of 21.59% for groundwater consumption. At the same time, we actively expanded the use of urban reclaimed water. The annual consumption of urban reclaimed water by 11 thermal power generation enterprises in such places as Dengkou, Panjin, Fengrun, Cangzhou, Heze, Jiaozuo and Dengfeng was 42,679,200 tons, up 3.02% year on year. We also took the initiative to cooperate with upstream and downstream suppliers in water resources management. Among them, Dengfeng reuses 3,754,700 tons of mine water from upstream coal mining enterprises.

## Enhance the awareness of water conservation

The Company attaches great importance to the cultivation and dissemination of water-saving awareness. By organizing activities such as "World Environment Day on June 5", National Energy Conservation Publicity Week and Excellent EHS Award Selection, it actively publicizes energy conservation and water-saving knowledge, enhances employees' awareness of water saving, and commends units and individuals that have made outstanding contributions to safety, health and environmental protection (including water saving), so as to better play a leading role in water saving.

E Case

# **CR Power holds 2023 National Energy Conservation Publicity Week**

In July 2023, the Company organized all units to carry out thematic training on National Energy Conservation Publicity Week and Low Carbon Day activities closely around the theme of "Energy Conservation and Carbon Reduction, Cooperation Between You and Me", and to watch promotion videos on energy conservation and environmental protection, such as Implementing *Xi Jinping Thought on Ecological Civilization and Accelerating Green and Low-carbon Transformation*. The Company issued an initiative on energy conservation and water saving, conducted quiz on energy conservation and water-saving knowledge, promoted the improvement of employees' awareness of water conservation, and created an atmosphere of low carbon and environmental protection.





a waste water recycling rate of

92.97%



the Company has invested about RMB

12 billion in the fields of pollution prevention and control and energy conservation technology transformation

# **Orderly emissions management**

Efficient emissions management is one of the core strategies to promote green development. The Company actively responds to the national environmental protection policies, attaches great importance to the emission control of "three wastes", and takes multiple measures to optimize the disposal of "three wastes" to ensure that emissions meet the requirements of national standards and minimize their impact on the environment.

#### 일 \_\_\_\_\_ , , , , , , , Waste water discharge

The Company continues to carry out comprehensive treatment of waste water, strengthen the cascade utilization of water and improve the reuse efficiency of waste water. In 2023, the Company generated 20,573,800 tons of waste water, up 1.05% year on year, recycled 19,127,700 tons of waste water, with a rise of 2.43% and a waste water recycling rate of 92.97%, and discharged 1,446,000 tons of waste water, a decrease of 14.16%.

# ୍କୁ ଅନ୍ୟୁ ଆଲି Waste gas emission

The Company has thoroughly implemented the *Technical Route Scheme of CR Power on the 14th Five-Year Plan Three Coal and Electricity Transformations,* integrated the green ecological concept into the whole life cycle of power plant planning, construction, transformation and operation, strictly controlled all links from the source to the terminal, selected the ultra-low emission transformation technical route for each coal-fired generator unit according to local conditions, accelerated the ultra-low emission transformation of thermal power, and deeply explored the potential of energy conservation and consumption reduction to reduce resource consumption and pollutant discharge. Since 2016, the Company has invested about RMB12 billion in the fields of pollution prevention and control and energy conservation technology transformation, mainly for ultra-low emission transformation of power plants and closed transformation of coal yards.

# Ultra-low emission transformation of coal-fired power plants

The coal-fired generating units operated by the Company have completed ultra-low emission transformation. Under the condition of a reference oxygen content of 6%, the desulfurization system, denitration system and dust removal system adopted by the Company achieve an emission concentration of not more than 35 mg/m<sup>3</sup> for sulfur dioxide, 50 mg/m<sup>3</sup> for nitrogen oxides and 10 mg/ m<sup>3</sup> for particulates respectively, greatly reducing pollutant emissions from coal-fired boilers. In addition, projects in Cangzhou, Fengrun, Cangzhou Bohai New Area, and Caofeidian have implemented in-depth flue gas treatment. The emission concentration of particulate matter, sulfur dioxide and nitrogen oxides has reached below 5 mg/nm<sup>3</sup>, 25 mg/nm<sup>3</sup> and 30 mg/nm<sup>3</sup> respectively, further contributing to the improvement of air quality.

#### **Closed transformation of coal yards**

A total of 29 out of 36 operating coal-fired power plants owned by the Company have completed the closed transformation of coal yards, which significantly reduces secondary dust emissions and effectively improves the air environment in the coal yards and surrounding areas. Coal-fired power plants that have not yet completed the transformation have been equipped with wind and dust suppression nets around the coal yards to minimize the risk of unorganized atmospheric pollution from coal-fired power plants.

#### ାଙ୍କୁ ଆଲିଲ୍ଲି Waste discharge

The Company integrates the concepts of circular economy, resource conservation and pollution prevention into the whole process of production and operation, organizes units at all levels to actively participate in the harmless treatment of waste, improves resource utilization efficiency and reduces the pressure on the environment.

# 👘 Hazardous waste

Each subordinate unit of the Company has established a sound hazardous waste management system and is equipped with detailed hazardous waste management ledgers to manage the collection and storage of hazardous waste through standardized processes. At the same time, we actively seek cooperation with hazardous waste treatment institutions with professional qualifications and sign compliance disposal agreements with them to ensure 100% compliance disposal of hazardous waste. In addition, several thermal power plants of the Company carried out collaborative disposal of hazardous waste. Gucheng Power Plant co-disposed of 14,953.48 tons of drug residue (hazardous waste), Jiaozuo Power Plant co-disposal of 15,062.094 tons of carbide slag and Jinzhou Power Plant co-disposal of 4,118.44 tons of carbide slag, effectively reducing and preventing problems such as heavy metal pollution, soil pollution and groundwater pollution caused by improper disposal of hazardous waste.

# Solid waste

The Company continuously strengthens the comprehensive utilization of solid waste such as fly ash, slag and desulfurization gypsum. On one hand, each subordinate unit has formulated emergency plans and built emergency storage equipment and facilities to ensure that by-products can be properly stacked and stored during the period of decline in demand for by-products such as ash and gypsum to prevent environmental pollution; on the other hand, thermal power plants have actively expanded market development channels and looked for qualified and suitable disposers to realize resource utilization of by-products such as ash and gypsum. At the same time, they have strengthened the co-disposal of urban sludge, assisted power plants in solving environmental problems such as "sludge siege" and "difficult solid waste disposal", and helped to realize the recycling, reduction and harmless disposal of solid waste. In 2023, the Company's nine power plants co-disposed of a total of 665,786 tons of urban sludge, including 142,535.18 tons of marble waste slurry from Hezhou Power Plant and 27,932.4 tons of white mud from Jinzhou Power Plant.

he Company's nine power plants co-disposed of a total of

665,786 tons of urban sludge



to ensure **100%** compliance disposal of hazardous waste

# More Friendly Emission Reduction Scheme

CR Power regards energy conservation and emission reduction as an important driving force for green development. It has established a sound and comprehensive environmental management system, explored more friendly emission reduction schemes, and carried out diversified environmental protection actions with its own resources and strength to implement the development concept that "lucid waters and lush mountains are invaluable assets" with practical actions.

# **Environmental management system**

## **Environmental management targets**

We attach great importance to ecological environment protection, regard it as a key part of the annual environmental, health and safety objectives, and incorporate it into the annual performance contracts of units at all levels. Based on our clear medium-term and short-term environmental performance objectives, we assign specific ecological environment protection and energy conservation tasks and objectives to each unit every year, and strictly assess the completion of the objectives of each unit on a regular basis to ensure the effective implementation and continuous improvement of environmental protection work.

S/N	Indicator	Unit	Data in 2020	Target for 2022 De	Target for 2023 crease comp	Target for 2024 ared with 20	Target for 2025 020	Data in 2023
1	Comprehensive energy consumption per RMB10,000 output value (comparable price)	Ton of standard coal/ RMB10,000	3.9984	5.00%	10.00%	15.00%	20.00%	3.32
2	Comprehensive energy consumption per RMB10,000 added value (comparable price)	Ton of standard coal/ RMB10,000	9.4119	4.00%	7.00%	10.00%	15.00%	8.90
3	SO <sub>2</sub> emissions	t	10,989.1192	4.00%	6.00%	8.00%	10.00%	12,348.78
4	NO <sub>2</sub> emissions	t	20,387.5227	4.00%	6.00%	8.00%	10.00%	22,123.78
5	Smoke emissions	10,000 t	0.13	Y	ear-on-year the prev	decrease fro ious year	m	0.14
6	COD emissions	t	55.02	Y	ear-on-year the prev	decrease fro ious year	im	46.61
S/N	Indicator	Unit	Data in 2020	Target for 2022	Target for 2023	Target for 2024	Target for 2025	Data in 2023
1	Standard coal consumption for power supply (Subsidiary coal- fired power plants)	g/kWh	296.0	/	/	295.75	295.00	297.17
2	Major or above environmental pollution incidents	/	0	0	0	0	0	0



#### **Environmental management system**

In 2023, the Company issued the Guidelines for "*Three Simultaneities*" *Management of New Energy Construction Projects* to play basic and guiding role for environmental protection facilities, soil and water conservation facilities and other work in renewable energy construction projects.

At the same time, the Company issued Management Measures for *EHS Reward* and *Management Measures for Accountability of EHS Accidents and Incidents* to encourage employees to actively participate in the environmental protection work of the Company through positive incentives, and enhance their awareness for environmental protection and sense of responsibility through accident accountability. The two systems together constitute a double guarantee for EHS management of CR Power and lay a solid foundation for the long-term stable development of the Company.

## **Environmental incentives**

With the release of *Management Measures for EHS Reward*, we will organize EHS award selection every year and set up many awards such as "Excellent EHS Management Award", "EHS Management Special Award" and "EHS Contribution Star". We will commend and reward teams and individuals who have made outstanding contributions to EHS work, encourage employees to actively participate in EHS management, form a good environment, health and safety atmosphere, and enhance the overall awareness of environmental protection.

#### **Risk inspection and rectification**

In 2023, we organized regional branches to carry out three rounds of special inspection and rectification on ecological environmental protection compliance, covering all operation projects and construction projects of the Company, with a total of 548 problems found in the inspection. In view of the problems found in the special inspection, the inspected units shall act quickly and make rectifications immediately. For problems that are difficult to rectify at the moment, temporary measures shall be implemented immediately, rectification plans shall be formulated one by one, rectification measures shall be refined, and the responsible subjects and rectification.

# E Case

# CR Power organizes special inspection and rectification on ecological environment protection in the Yangtze and Yellow river basins

From September to December 2023, CR Power organized special inspection and rectification of ecological environmental protection problems in the Yangtze and Yellow river basins, focusing on the green transformation and development of enterprises in the basins, comprehensive management of ecological environment problems, ecological environment safety, basic capacity of ecological environment, etc. There were 95 problems found in the inspection, including typical problems such as imperfect maintenance records of online monitoring equipment in some projects, and incomplete markings of automatic monitoring data and equipment maintenance. As of December 31, 2023, all the problems found have been rectified.

## **Risk impact assessment**



## **Environmental accident prevention**

According to the *Action Plan on Prevention and Control of Air Pollution* and other regulations, CR Power's enterprises located in key areas such as Beijing-Tianjin-Hebei region and Yangtze River Delta have prepared heavy pollution weather response plans according to the principle of "one policy for one plant". During the environmental protection control period, thermal power plants in Beijing, Cangzhou, Tangshan, Heze and other places took emission reduction measures in advance in strict accordance with the requirements of local environmental protection departments and the principle of "one policy for one plant", and supervised the implementation of emission reduction on a daily basis. No excessive pollutant emissions or environmental assessment incidents occurred, which was highly recognized and praised by relevant local authorities.



# E Case

## Conducting emergency drills to prevent accidents before they happen

In June 2023, CR Power Guangxi Company and Chenzhou Company respectively organized and carried out on-site emergency response drills for liquid ammonia leakage in the ammonia area and emergency drills for liquid ammonia leakage in the ammonia area to strengthen risk control and prevention capabilities in the major hazard source ammonia area, and enhance employees' awareness of safety and environmental protection and on-site emergency response capability for liquid ammonia leakage.



In October, CR Power Jiaozuo Company organized an emergency drill for hazardous waste leakage. More than 40 employees from the Ecological Environment Bureau of Bo'ai County and the company participated in this drill. The activity effectively improved the emergency response ability of employees and enhanced their comprehensive quality.



#### **Clean production audit**

We have realized that promoting clean production is the basic support for achieving the synergy between pollution reduction and carbon emission reduction, so we have organized and carried out clean production audit to comprehensively evaluate the production process. In 2023, the Company's nine branches/subsidiaries in Hezhou, Liyujiang, Hunan, Xuzhou, Banqiao, Zhenjiang, Heze, Cangzhou and Yundong organized and passed the clean production audit. In addition, six branches/subsidiaries in Dengfeng, Bohai, Jinzhou, Panjin, Dengkou and Xinzhou completed the on-site acceptance of clean production audit or the review of clean production audit acceptance report. They are expected to complete the final acceptance and pass the clean production audit in 2024. The generation and use of waste in production will be reduced by optimizing the process flow and the use of raw materials, so as to further improve the recycling rate of resources.

# **Management system certification**

Rundian Energy Science and Technology Co., Ltd. under CR Power has obtained the Environment Management System Authentication Certificate certified by CECC, which is not only recognition and encouragement for the company's sustainable development work, but also further proves the Company's compliance and professionalism in environmental management.



# **Environmental protection actions**

While establishing and improving the Company's internal environmental management system, we actively organize external environmental protection actions to continuously strengthen our own environmental protection ability, awaken all stakeholders' awareness of environmental protection, and jointly build a green and low-carbon society for all.

#### Internal environmental protection training

We have organized and carried out special training on ecological environmental protection in diversified forms to continuously strengthen and improve employees' awareness of ecological environmental protection and their management ability. In 2023, about 20,000 employees of CR Power received ecological and environmental protection training in total. The training covered the latest environmental protection laws and policies, the Company's environmental protection management system, environmental protection management experience, etc. It aimed to improve the environmental awareness and skills of employees, covering all kinds of groups such as middle-level and senior management personnel, professional technical personnel and newly transferred EHS supervision personnel. At the same time, the Company organized the environmental protection management personnel of its subordinate units to participate in the special environmental protection training organized by the Group and various environmental protection training sessions organized by the Appraisal Center for Environment and Engineering of the Ministry of Ecology and Environment and All-China Environment Federation. All kinds of training sessions have achieved remarkable results, which not only enhanced employees' sense of responsibility and mission to protect the ecological environment, but also laid a solid foundation for improving the Company's environmental protection management level.

# **Environmental protection public welfare publicity**

We have actively carried out publicity work on environmental protection, and continued to carry out environmental protection themed activities such as World Environment Day on June 5, National Energy Conservation Publicity Week, and Green Power Knowledge into Campus to publicize knowledge of energy and water conservation and green development, promote multi-party co-construction, co-governance and sharing of a green and low-carbon community.



# In 2023, about **20,000** employees of CR Power received ecological and environmental protection training in total

# Case

# Bringing green power knowledge into campus, making ecological concept taking deep root

On December 27, Guangdong New Energy Company of CR Power organized the activity of "Green Power Knowledge into Campus". The young employees of Qingyuan Base carried out popular science publicity and implementation training on PV power generation principles in Yuantan No. 1 Junior High School, so as to popularize green power and electricity safety knowledge for teachers and students on campus, calling on everyone to strive to be practitioners and promoters of green and low-carbon development, and jointly build a" green campus featuring energy conservation and low carbon".



Dachaidan Wind Farm of CR Power Qinghai Company carries out afforestation activities, planting

645 trees in total

## **Voluntary afforestation**

We resolutely implement Xi Jinping's important instructions on encouraging nationwide voluntary tree planting, and carry out regular voluntary treeplanting activities every year to effectively enhance the sense of responsibility of all leaders and employees in planting, caring for and protecting the green environment, thus contributing to wind prevention, sand fixation and environmental beautification.



# Shouldering the Mission to Nourish All Things

# **Challenges**

The implementation of the "dual carbon" goals had a far-reaching impact on power enterprises. The high proportion of renewable energy and the high proportion of power electronic equipment made the power system more complex, posing greater challenges to its safe, stable, efficient, and optimal operations. Additionally, facing multiple challenges such as turbulence in the global energy market, rising prices of raw materials, and a scarcity of skilled professionals in energy technology, power enterprises are compelled to bolster their comprehensive capabilities regarding supply chain management and talent training, aiming to enhance their resilience and flexibility in coping with the complex and changing market environment.

# Actions

- Efforts were made to improve the construction of scientific and technological (scitech) innovation systems, promote the product-oriented application of innovation achievements, enhance the cultivation of talent teams specializing in sci-tech innovation, and comprehensively expand the digital coverage rate across key business links.
- Efforts were made to strictly implement the supplier management system, strengthen the responsible procurement management norms, and establish a responsible supply chain. We were actively engaged in the formulation of industry standards and industry exchange activities to promote the progress and development of the industry.
- A range of guidance documents on cybersecurity specifications were continuously issued to facilitate the standardized management of cybersecurity risk prevention and enhance the overall network security protection capability.
- We earnestly fulfilled the main responsibility of ensuring a safe supply and made every effort to ensure a safe and stable supply of power generation by establishing coal source procurement centers, opening special trains for thermal coal circle transport, expanding the purchasing volume of imported coal, and increasing thermal coal reserves.
- Adhering to the people-oriented principle, we continuously improved the employee development mechanism, optimized customer service quality, and implemented public welfare services and rural revitalization construction, contributing to the creation of a more harmonious community.

# SDGS 1 0 POVERTY Image: Construction of the construction





# Making pioneering efforts to lead in innovation

CR Power formulated and continuously optimized the "2551" strategy for sci-tech innovation during the 14th Five-Year Plan period, taking this strategy as a foundation to foster the comprehensive development of sci-tech innovation at the company level. Efforts were made to take measures such as clarifying the direction of scientific research, improving the construction of the science and technology innovation system platform, connecting the key chains for the transformation of sci-tech innovation achievements, and integrating various innovation elements concerning industry, university, research, and practical application. The aim was to effectively promote the deep integration of the Company's policy, innovation, capital, talent, and industry chains, propelling the Company forward on a new journey for digital transformation.

	CR Power's "25	51" strategy for sci-tech innovation during the 14th Five-Year Plan Period
	Positioning	Assisting CR Power in becoming a world-class clean energy enterprise
Ś	Target	2025: Ranking among technological innovation-oriented enterprises, with technological innovation becoming a new engine for high-quality development; 2030: Leading sci-tech innovation-oriented enterprises in the industry, with scientific and technological innovation becoming a driving force for development.
ŝa	Direction	Empowering power generation business: Strengthening R&D in the field of skills, technologies, and digitalization on the power generation side; Cultivating emerging businesses: Proactively developing strategies in the fields such as energy storage, hydrogen energy, as well as CCUS to acquire key technologies.
	Main tasks	"2" Obtaining at least 2 domestic industry-leading technologies by 2027.
Ċħ		"5" Independently developing at least 5 technologies that have an important impact on CR Power.
Ŷ		"5" Building characteristic demonstration bases in the fields of thermal power, new energy, energy storage, hydrogen energy, and CCUS.
		"1" Establishing 1 high-tech company through merger and acquisition or joint venture.
⊕ <mark>e</mark>	Key measures	Project research, capital investment, organizational construction, institutional construction, ecological construction, business incubation, and talent cultivation

# Identifying the direction of innovation

With a focus on the target of sci-tech innovation and guided by the "2551" strategy, CR Power established eight key scientific research directions such as intelligent power generation business, digital energy, the technical transformation of coal-fired power plants in three aspects, high-efficiency and low-cost CCUS, and preparation and application approaches of green hydrogen and its derivatives centered on the five major fields of thermal power, new energy, energy storage, hydrogen energy, and CCUS. The aim was to comprehensively promote the deep integration of energy technology and traditional businesses. Concurrently, CR Power leveraged energy technology innovation to actively cultivate emerging businesses and forge new competitive advantages.

# Solidifying the foundation for innovation

We placed a high priority on meeting the scientific and technological innovation requirements set by the State-owned Assets Supervision and Administration Commission of the State Council and China Resources for CR Power in the field of electricity. We made efforts in multiple dimensions and collaboratively promoted the construction of institutions, organizations, platforms, and systems for sci-tech innovation. We were committed to implementing intellectual property protection, laying a solid foundation for the sci-tech innovation system. We fully harnessed the leading, supportive, and productive forces of the innovation-driven development strategy in high-quality energy development.

## Institutional construction

We initially established a business system covering scientific research institutions/companies, scientific research teams, provincial and municipal scientific research platforms, as well as major science and technology projects and achievements. We continuously improved the institutional system to foster innovation, facilitating the transformation of innovation from basic research to practical practice through institutional support.

Key institutions:

In 2023, CR Power issued the Notice on Clarifying the Responsibilities of Leaders and Managers in Charge of Scitech Innovation in Each Unit of CR Power, the Notice on Issuing the Calculation Rules for Adding the R&D Expenses into the Profit in 2022, the Management Guidelines for Scientific and Technological Research Teams and Scitech Innovation Platforms, and the Expert Management Guidelines. It also revised the Administrative Measures for Scientific and Technological R&D Projects and the Guidelines for Statistical Work of Sci-tech Innovation.

## **Organizational construction**

Based on the original innovation organizational structure, we further strengthened and improved the sci-tech innovation organization system covering "CR Power-subsidiaries in various regions-regional subsidiaries". Additionally, we further clarified the organizational functions of our subsidiaries in various regions and regional subsidiaries by building scientific research teams and sci-tech innovation platforms.

Centralized management department	Positioning
Science and Technology Innovation Committee/ Technical Committee	Being responsible for the management of the sci-tech innovation work and making decisions in this field
Science, Technology, and Digitalization Department	Taking charge of coordinated management of the sci-tech innovation business
Technical Research Institute	Undertaking major tasks such as scientific research innovation and technological breakthroughs and providing products and technical services internally and externally
Subsidiaries in regions/regional subsidiaries	Being responsible for the implementation and demonstration of scientific research projects

# CR Power's organizational structure for sci-tech innovation

## **Platform construction**

Based on the actual situation of serving national strategies and the Company's development, we established sci-tech innovation platforms at national, provincial and ministerial, and company levels. The main tasks were to undertake the Company's major sci-tech innovation projects, facilitate collaborative efforts to address common technical challenges, cultivate technical research and management personnel for the Company, and carry out engineering demonstration and achievement application of major sci-tech innovation projects. The aim was to effectively serve the Company's sci-tech innovation projects and activities.



## System construction

Backed by the Technical Research Institute, we built a scientific research system integrating projects, teams, and platforms. Based on the existing organizational structure and scientific research directions, the Technical Research Institute set up four centers: R&D Center, Industrial Incubation Center, Design Evaluation Center, and Production Center, aiming to further refine the division of functions and tasks and ensure the implementation of major innovation projects.





## Intellectual property protection

We attached great importance to the protection of intellectual property rights and established a sound intellectual property management system. We proactively carried out intellectual property protection work, steadfastly safeguarding the legitimate rights and interests of the Company. A special Intellectual Property Committee shall be set up at the headquarters level to coordinate and improve intellectual property strategic planning. Additionally, to facilitate daily management, we set up a Secretariat of the Intellectual Property Committee in the Legal Compliance Department to ensure robust intellectual property protection.

# **Empowering achievement transformation**

Focusing on the needs of industry development, we actively explored the mechanism for achievement transformation and continuously strengthened the construction of the sci-tech innovation system. Moreover, we increased investments in innovative science and technology and optimized innovation incentive policies to advance the application of sci-tech achievements in industrial development and transformation. In 2023, CR Power applied for 250 new patents and obtained 247 granted patents, with a total of 1,568 granted patents.



# Performance in the transformation of sci-tech achievements:

- The wind farm primary frequency modulation test and design project developed by the "Wind Farm Rapid Frequency Modulation Integration Transformation and Test Technology Research Project" has been applied, promoted, and implemented across more than 90 wind farms and photovoltaic power stations belonging to over 10 power generation groups. These include China Resources, State Power Investment Corporation Limited, Power Construction Corporation of China, China Huaneng Group Co., Ltd., and CGN.
- The project "Research and Application of Key Technologies for Co-processing Sludge in Super Large Cities by High-parameter Coal-fired Units" realized the large-scale sludge disposal and clean and efficient utilization and fostered the synergy between carbon reduction and pollution reduction of coal-fired units. The project results have been successfully popularized and applied to 11 cities, generating a cumulative economic benefit of nearly RMB360 million within three years, with remarkable economic and social benefits.
- The "Research on Key Technologies for Reliability Improvement of Power Generation Equipment under the Background of New Power System" project adopted digital and intelligent supervision means to facilitate accurate maintenance of key components and equipment of generating units, aiming to reduce unscheduled shutdowns and ensure safe and stable operation of the power grid. The project achievements have been popularized and applied to 11 enterprises, yielding a direct economic benefit of approximately RMB338 million.

# **Driving talent innovation**

Adhering to the concept that "talent is the primary resource", we underscored the pivotal role of talent in driving sci-tech innovation. We were committed to attracting and cultivating a large number of high-quality innovative professionals and built teams of high-level sci-tech innovation management personnel, thereby further stimulating the vitality of sci-tech innovation. At the end of 2023, 3,378 employees obtained national intermediate professional technical titles, 699 obtained deputy senior professional titles, and 27 obtained senior professional titles.

## Introduction of sci-tech professionals

The company continued to improve the talent introduction mechanism and significantly expanded the introduction channels by seeking out talent from colleges and universities and other scientific research institutions, introducing overseas high-level talents, and exploring flexible talent introduction. Additionally, it accurately introduced urgently needed professionals essential for current research endeavors and prioritized the introduction of leading figures in science and technology and innovation teams. Moreover, it also guaranteed the subsequent training quality of sci-tech professionals through differentiated and customized training programs.

At the end of 2023



## Training of sci-tech professionals

Externally, we vigorously promoted the industry-university-research integrated development and cooperated with Chongqing University to establish an Engineer Technology Center. We developed a new model of collaborative cooperation between centrally-administrated universities and central state-owned enterprises in the industry-university integration. We jointly promoted the construction of the National Elite Institute of Engineering, Chongqing University, aiming to cultivate a large number of interdisciplinary application-oriented and versatile outstanding engineers and nurture high-level innovative professionals in cutting-edge technologies such as smart energy.

Internally, in alignment with our training philosophy of "nurturing a batch of professionals who, in turn, drive the development of other professionals", we formulated a youth talent selection plan to further explore the growth mechanism for young sci-tech professionals. Additionally, various measures were taken to enhance the knowledge reserve of sci-tech professionals. These measures included actively carrying out the "Sci-tech Innovation Management Talent Training" project, organizing scientific research talent to participate in China Resources' Group "Sci-tech Innovation" online training camp, and holding science and technology lectures on new power system technologies.

#### Incentives for sci-tech professionals

In combination with the current salary incentive system, we implemented the salary incentive system of China Resources Group for sci-tech and skilled professionals. Additionally, we promoted the implementation of policies such as bonus points and rewards for sci-tech innovation achievements, separate listing of total salaries, and honor recognition. In 2023, the Company issued the *Notice on Issuing the Calculation Rules for Adding the R&D Expenses into the Profit in 2022* to give bonus incentives to teams winning China Resources' Group Science and Technology Innovation Achievement Award as required.

#### Highlight: Chen Wu, an outstanding leader in sci-tech research

Chen Wu, Deputy Director and Senior Engineer of the Equipment Management Department of China Resources Power (Lianyuan) Co., Ltd., led his team to make technological breakthroughs. By fostering independent innovation, the team successfully implemented the integrated transformation of coal incoming card handling, sampling, and metering and completed the import substitution of the distributed control system, obtaining multiple patents. On August 2, 2023, Chen Wu's technical team was awarded the "Chen Wu Model Worker Innovation Studio" by the Loudi Municipal Trade Union.



# Seizing the opportunity for transformation

We strictly implemented China Resources' Group "four horizontal and one vertical" digital transformation strategic planning and successively built landmark projects such as Xiantao Smart Thermal Power, Fuxin Smart Wind Power, renewable energy ERP, smart energy cloud, electronic malls, and digital technology platforms. We were committed to promoting business digitization, governance intelligence, and data elementation with practical measures. At the end of 2023, CR Power achieved remarkable results in digital transformation, with the digital coverage rate in key business links exceeding 70%.





CR Power Xiantao Smart Power Plant Platform



CR Power Fuxin Smart Wind Farm

# Working together for a win-win future

Adhering to the basic concept of "people-oriented and win-win cooperation", CR Power explored the establishment of a "responsible, sustainable, and efficient" supply chain. By deepening partnerships with top-tier partners, it managed to achieve significant breakthroughs in industry development through high-quality cooperation.

# Building a responsible supply chain

We strictly implemented the relevant requirements of responsible procurement and continuously improved rules and regulations such as *Supplier Management Measures and EHS Management Guidelines* for Related Parties. By adopting multiple measures to bolster supplier management, we ensured the stability, reliability, and sustainability of the supply chain.

#### Carrying out responsible procurement

We adhered to the concept of sustainable development throughout the procurement process of projects, goods, and services. We aimed to optimize the procurement management system to make the procurement process compliant, controllable, and sustainable.



## Strengthening supplier management

Number of suppliers by region

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The Company strictly implemented the procurement management system and steadfastly advanced its efforts in supplier classification, evaluation, training, and audit to comprehensively strengthen supplier management.

**Supplier classification:** By introducing the concept of supplier relationship management, we classified material suppliers into strategic, leveraged, bottleneck, and general suppliers for classified management according to the significance of materials and procurement risk. We formulated targeted management strategies for the above four types of material suppliers respectively to ensure that suppliers matched the Company's procurement needs.

**Supplier training:** We carried out relevant training and guidance for suppliers/contractors through various forms such as meeting exchanges and supplier inspections to further improve the EHS management level and ability of suppliers/contractors in the process of equipment production and engineering construction.

**Supplier evaluation:** According to suppliers' performance in the contract fulfillment process, we implemented performance evaluation management for suppliers and carried out annual supplier management evaluations regularly. Furthermore, we also prepared a list of bad suppliers and jointly punished dishonest suppliers throughout the Company to effectively enhance their contract performance ability. The number of contracts/orders evaluated in 2023 was 59,070, involving 7,191 suppliers. The evaluations yielded an impressive satisfaction rate of approximately 97.1%.

**Supplier audit:** We further widened the scope and intensity of supplier audits. Furthermore, we carried out special audits covering new energy business, fuels, and energy storage in combination with key links in the process of power development, operations, and transformation. In 2023, by using the data analysis model, we identified 189 doubtful points in 15 audit projects and solved 28 audit problems involving an amount of RMB144 million, prompting corrective action to be taken on 18 suppliers.

		,						
Jiangsu	Units	1,265	Shanxi	Units	201	Beijing	Units	25
Henan	Units	1,001	Hunan	Units	300	Qinghai	Units	14
Guangdong	Units	748	Anhui	Units	283	Xizang	Units	0
Hubei	Units	443	Ningxia	Units	38	Jilin	Units	46
Hebei	Units	795	Gansu	Units	66	Shanghai	Units	29
Shandong	Units	575	Hei Longjiang	Units	70	Xinjiang	Units	26
Inner Mongolia	Units	260	Shanxi	Units	183	Hainan	Units	11
Liaoning	Units	558	Yunnan	Units	73	Tianjin	Units	6
Guangxi	Units	158	Sichuan	Units	163	Chongqing	Units	4
Zhejiang	Units	260	Jiangxi	Units	65	Overseas	Units	9
Guizhou	Units	71	Fuiian	Units	84			

# Expanding the high-quality circle of friends

By practicing the enterprise value of win-win cooperation, CR Power tapped into the potential of industrial synergy internally and externally expanded all-around and profound cooperation with brother enterprises, upstream and downstream enterprises, scientific research institutions, and local governments across various fields. The aim was to explore development paths and cooperation models and achieve complementary advantages and mutual benefits.

## **Internal collaboration**

We made active efforts to garner policy support from China Resources Group, ensuring full utilization of our internal resources. We vigorously carried out coordinated development of internal businesses and explored the establishment of an incentive mechanism that fosters synergy across different business formats. We aimed to enhance the endogenous power for internal collaboration and realize effective sharing of resources. In 2023, the Company coordinated the development of distributed PV projects through cooperation with CR C'estbon, China Resources Building Materials Technology Holdings Limited ("CR Bldg Mat Tec"), China Resources Beer (Holdings) Company Limited ("CR Beer"), CR Mixc Lifestyle, and China Resources Pharmaceutical Group Limited, with 200MW from CR Bldg Mat Tec, 80MW from CR C'estbon, and 40MW from the first batch of project of CR Beer. Moving forward, it plans to gradually develop projects regarding waste heat recovery, charging, and energy-saving transformation.

# Case:

# CR Power and CR Mixc Lifestyle signed a strategic cooperation agreement

On October 9, CR Power and CR Mixc Lifestyle signed a strategic cooperation agreement in Shenzhen. According to the agreement, both parties will engage in close collaboration in six areas: urban space operation services, integrated energy services, charging infrastructure construction, electricity purchase and sales business, carbon asset management, and customer resource sharing. They will establish channels for communication and mechanisms for coordinating projects at all levels to facilitate the implementation of strategic cooperation between the two parties.



#### **External collaboration**

We deepened cooperation with partners with unique resources such as provincial energy enterprises, government investment platforms, and leading enterprises in the industrial chain. Additionally, we explored new cooperative relations and innovated development paths and cooperation models to consolidate collective endeavors aimed at fulfilling our vision to serve as a "clean energy supplier and integrated energy service provider".

Government-enterprise cooperation: We implemented the regional coordinated development strategy. Leveraging
the Company's platform and resource advantages, we pioneered an innovative central-local cooperation model and
broadened the scope of government-enterprise cooperation, aiming to secure mutual benefits and win-win results at
a higher level. In 2023, the Company signed strategic cooperation agreements with government agencies located in
Zhangjiakou City, Lanzhou City, Tianshui City, Haimen District of Nantong City, and Suixi County of Huaibei City to
foster sustainable development of the regional economy.



China Resources Power engages in discussions with Jiamusi City



CR Power signed a strategic cooperation agreement with Zhangjiakou Municipal People's Government

Enterprise-enterprise cooperation: Seizing the development opportunity of "carbon peaking and carbon neutrality", we continued to enhance strategic mutual trust with upstream and downstream enterprises such as Huawei Digital Power Technologies Co., Ltd. and China Energy Engineering Group Co., Ltd. Moreover, we enhanced win-win cooperation with enterprises including China Grain Reserves Group Co., Ltd., Jinko Solar, Haier, XJ Group Corporation, Sany Renewable Energy Co., Ltd., Dongfang Electric Co., Ltd., Harbin Electric Corporation, and Sinopec. Throughout these partnerships, they leveraged their respective advantages to enhance coordination in the industry chain.

# Case:

# CR Power and Inner Mongolia Power (Group) Co., Ltd. signed a strategic cooperation framework agreement

In May 2023, CR Power and Inner Mongolia Power (Group) Co., Ltd. signed a strategic cooperation framework agreement. The agreement covered the power transmission of Inner Mongolia Power (Group) Co., Ltd., pumped storage, market-oriented grid connection projects, shared energy storage and enterprise management, and sci-tech innovation. Both parties agreed to establish high-level communication, regular communication, and project coordination mechanisms to thoroughly enhance the strategic partnership between them.



• University-enterprise cooperation: We further deepened the cooperative relationship with various universities and scientific research institutions. Specifically, we signed strategic cooperation agreements with Hong Kong Polytechnic University, Chongqing University, Shanghai University of Electric Power, and Shenyang University to jointly explore technological innovation and talent training in the energy science and technology sector and advance the industry-university-research integrated development.



The "China Resources-Hong Kong Polytechnic University Joint Research Center for Carbon Dioxide and Solid Waste Utilization (Hezhou Experimental Base)" was officially unveiled



CR Power Sunan Company and Shanghai University of Electric Power signed a university-enterprise cooperation agreement on industryeducation integration

• **Overseas cooperation:** We thoroughly implemented the "dual circulation" strategy to enhance strategic cooperation with overseas enterprises, foster high-level opening up, and make greater contributions to building a new development paradigm.



CR Power and LX International Corp. signed a purchase intention agreement



CR Power and PT Borneo Indobara signed a purchase intention agreement

# Expanding the development potential of the industry

Committed to driving the transformation and upgrading of the energy industry, the Company strengthened the research on key technical standards in the industry and extensively participated in inter-industry exchange activities at home and abroad, engaging in discussions about development, advocating for favorable policies, and exploring innovative paths for the energy industry's progress.

# Participating in the formulation of industry standards

We strengthened the research on industry standardization and led or participated in the formulation of industry standards by national, regional, and local governments. In doing so, we continuously enhanced CR Power's voice in industry standards in the energy field. In 2023, 1 national standard, 3 industry standards, and 4 group standards led/co-compiled by the Technical Research Institute were approved for promulgation.

E Case:

# CR Power Guangxi Company took the lead in drafting provincial local standards

In May 2023, the Guangxi local standard Technical Specification for the Application of Marble Waste Slurry to Wet Flue Gas Desulfurization led by CR Power Guangxi Company was officially released after being approved by the Guangxi Market Supervision Administration. This standard regulated the whole process of marble waste slurry from generation, collection, transportation, and treatment to gypsum application, with a great guiding significance for promoting the resource utilization of calcium carbonate solid waste in Guangxi.

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#### Participating in industry exchange activities

With a focus on the hot spots of industry development and the needs of enterprise development, we actively organized and participated in various industry exchange activities to promote the formation of a good atmosphere for mutual learning and common progress, injecting new impetus into the high-quality development of the energy industry.



CR Power South China Region held the industry technical exchange meeting on "Import Substitution of Gearbox Lubricating Oil for Wind Turbines"



Shi Baofeng, Chairman of the Board, was invited to attend the Swatow International Wind Power Technology Innovation Conference



CR Power was invited to attend the COP28 China Corner Side Event

# Cultivating talent based on the peopleoriented principle



the Company received

Zero complaints regarding human rights issues

the Company's labor contract signing rate reached

100%

CR Power adhered to the employee-oriented development concept and aligned its efforts with the target of "caring for employees, respecting their value, developing their potential, sublimating their mind, and sharing development achievements with them". It focused on strengthening the construction of talent teams and continuously optimized measures in areas such as employee recruitment, training, promotion, and care, aiming to provide strong talent support for its high-quality development during the 14th Five-Year Plan period.

# Safeguarding employees' rights and interests

We recruited employees legally, expanded employment capacity, and continuously improved the remuneration and benefits guarantee system. Furthermore, we actively broadened diversified democratic communication channels and safeguarded various legitimate rights and interests of all employees, creating an inclusive and open employment environment and establishing harmonious and stable labor relations. These efforts provided solid organization and talent guarantee for building CR Power into a world-class clean energy supplier and integrated energy service provider.

# Adhering to compliant employment

We strictly abided by the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, and other laws and regulations. We supported the Universal Declaration of Human Rights and the International Covenant on Human Rights. Additionally, we abided by the provisions of the International Labour Organization (ILO) and the United Nations Global Compact on human rights. We advocated diversity and equal opportunity, prohibited any form of discrimination, opposed any form of forced labor, harassment, and abuse, and put an end to child labor. Employees of different nationalities, races, genders, religious beliefs, and cultural backgrounds are treated fairly. In 2023, the Company received zero complaints regarding human rights issues, experienced no significant labor disputes, and employed no child labor.

We formulated the *Management Measures* for Recruitment to standardize talent recruitment management. We strictly keep confidential employees' personal resumes, as well as family, salary, and health information in recruitment, assessment, and remuneration. We signed labor contracts with employees according to law and provided employees with working conditions and salaries agreed upon in the contract. Furthermore, we also formulated relevant regulations such as the *Management Regulations on Selection and Appointment of Managers* and the *Notice on Strictly Implementing the Avoidance Requirements for Close Relatives of Leaders and Employees*, aiming to create a fair, just, and open organizational atmosphere. In 2023, the Company's labor contract signing rate reached 100%.





Educational background distribution of employees

Male

1.9%

50 years old

and above

# Regional distribution of employees



0.9%



# **Expanding employment capacity**

We took multiple measures to stabilize and expand jobs and promote employment, providing a development platform for a wide array of talented people. Our efforts focused on fortifying our long-term talent reserve and bolstering the industrial development potential. Furthermore, we leveraged our unique capabilities to facilitate the employment of groups such as veterans, migrant workers, and youth from Hong Kong, effectively contributing to the execution of various national policies. In 2023, the Company recruited a total of 1,078 employees, including 393 from campus recruitment and 685 from social recruitment.

#### Making efforts online and offline to expand employment and recruitment channels

We continued to broaden recruitment channels by releasing recruitment information online through multiple channels such as CR Power's official website and WeChat official account for recruitment, Iguopin, Zhaopin.com, and Liepin. Additionally, we actively deepened university-enterprise contact offline and carried out recruitment events in more than 40 colleges and universities to build an efficient, convenient, and person-job-matching recruitment platform for fresh graduates.

#### Implementing targeted policies to support the employment of key groups

**Employment of veterans.** We actively welcomed veterans, offering them tailored employment programs, relevant training, and welfare subsidies. In 2023, the Company made available 13 positions specifically for veterans seeking employment, successfully hiring seven veterans. By the end of 2023, it had recruited approximately 30 veterans in total, contributing to a more robust and higher quality employment.

**Employment of migrant workers.** The power industry exhibits specific peculiarities in the selection of project sites, which are often in economically disadvantaged regions such as mountainous areas. The power stations under CR Power provided a large number of auxiliary jobs for local poor migrant workers. By implementing strategies such as labor dispatch and construction outsourcing, they provided employment opportunities for more than 10,000 migrant workers. This initiative not only effectively boosted the income levels of migrant workers but has also satisfied the Company's employment needs.

**Employment of youth from Hong Kong.** We helped students from Hong Kong in colleges and universities in the Chinese mainland to get employed and provided them with practical opportunities by participating in the "Scheme on Corporate Summer Internship on the Mainland Overseas", "Operation Zhang Qian — Undergraduate Summer Internship Program for Students from Hong Kong" and "Special Internship Action for College Students from Hong Kong, Macao, and Taiwan". Leveraging resources from the "Greater Bay Area Youth Home" and the Guangdong Provincial Youth League Committee, we built a brand for Hong Kong talent training. We expanded channels to serve young people from Hong Kong in academic pursuit, employment, growth, and success, gave special emphasis on opportunities for college students from Hong Kong to work and develop in the Chinese mainland, and helped more young people from Hong Kong integrate into the overall national development.

#### Improving remuneration and benefits system

Based on the "14th Five-Year Plan" of CR Power, we steadfastly followed the subsidy/welfare policy of "legal compliance, universal inclusivity, and fundamental assurance" to provide competitive remuneration and benefits. We fully implemented performance appraisal for all employees to encourage value creation and stimulate organizational vitality. In 2023, the Company's social insurance coverage rate reached 100%, with employees entitled to an average of eight paid vacation days per year.

✓ Performance assessment: We implemented performance management for all employees, and established an incentive and restraint mechanism as well as a communication and feedback mechanism for performance results; fully implemented the contract-based management of managers, strengthened the link between evaluation results and salary incentives by combining annual evaluation with three-year tenure evaluation, and established a correlation between the salary performance assessment of managers and sustainable development performance. For example, the Environmental Health and Safety Department contained indicators related to the construction of "double prevention system", ecological environmental protection, and improvement of coal mine safety management.

☑ Incentive scheme: In 2023, we fully implemented a new salary incentive system. The total amount of bonus was highly related to the total amount of performance evaluation; an internally consistent tenure incentive system was adopted, and the tenure incentives were linked to the main business performance of the Company, which fully reflected performance orientation and incentives. The verification method of annual performance bonus for science and technology innovation business was redesigned to further activate the momentum of sci-tech R&D.

Welfare policy: We formulated the "Guidelines for Attendance Management in Headquarters" to safeguard employees' right to rest and vacation; paid "five social insurances and one housing fund" for employees on time and in full, as well as endowment insurance and commercial insurance; strictly implemented the regulations on leave for female employees during pregnancy and childbirth to protect their rights and interests; provided various statutory subsidies and benefits such as alpine subsidy, underground subsidy, heatstroke prevention subsidy and heating fee; supported the development of construction business and increased the approved proportion of overtime wages for construction personnel; improved the allowances, subsidies and welfare benefits for remote exchange personnel and provided treatment guarantee for remote exchange personnel and those who worked in tough areas. In 2023, we issued the "Encouraging Personnel to Exchange in Tough Areas" to unblock flow channels, clarify subsidy standards, and encourage and guide outstanding talents to contribute to the development of tough areas.



our total investment in employee training was about

RMB 24.35 million

with a total training duration of

2.4314 million hours

The coverage rate of employee

training reached 100



#### Implementing democratic management

We actively expanded diversified democratic communication channels, continued to build a democratic management system, and established trade union systems, employee symposiums, leadership mailboxes, human resources service days, visits and other two-way communication channels, thereby widely collecting employees' opinions or suggestions and making corresponding improvements to create a satisfactory workplace experience for employees. We carried out daily publicity and implementation of the reporting mechanism and channels for complaints against corruption and ensured independent reporting and open channels, making unremitting efforts to create an inclusive and open environment for talent training.

We set up the headquarters trade union, issued the "Compilation of Basic System Data for Enterprise Trade Union Work" in 2023, promoted companies at all levels to establish trade union organizations, accelerated the institutionalization and standardization of trade union management, and further exerted the effectiveness of trade unions. At the same time, we actively promoted companies at all levels to establish and improve the employees' congress system, contributing to achieving full coverage of employees' congresses in grassroots enterprises by the end of 2023.

# Growing with employees

We thoroughly implemented the requirements of the "14th Five-Year Plan" talent planning of China Resources Group, improved the employee training system, smoothed career promotion paths, and enriched employee care measures. We aimed to grow and make progress together with our employees, enhance their sense of identity and happiness, and become their partners in business and friends in life.

#### **Promoting talent growth**

We attached great importance to the improvement of employees' ability and quality and formulated systems such as the "14th Five-Year Plan Talent Planning of CR Power", "Management Measures for Internal Trainers" and "Guidelines for Training Fresh Graduates" to empower employees throughout their careers. Our employee training work was divided into three modules: learning resources development, training project management, and campus construction and operation. We aimed to lead the direction of training through core projects, serve students through learning resource development, supervise the compliance of training work through training systems, and guide the development of training management in each region through demonstration projects, consequently forming a multi-center and distributed talent training map. We gave equal attention to "cultivation" and "utilization", integrating the cultivation, selection, and utilization of talents effectively to form a talent supply chain. In 2023, our total investment in employee training was about RMB24.35 million, with a total training duration of 2.4314 million hours. The coverage rate of employee training, leadership training, and professional skills training all reached 100%.
- Stimulating talent vitality: We encouraged employees to obtain degrees, take professional title examinations and obtain qualifications, to help them master advanced knowledge and skills, enhance their abilities and broaden their horizons. The "Management Guidelines for External Training Assignment of Headquarters" stipulates that "According to the Company's business needs, employees are sent to participate in training programs related to their current job responsibilities or career development. Following the Company's approval, the Company will cover and pay for expenses such as training fees, materials fees, and examination fees to the training organizers."
- **Reshaping the training system:** In 2023, we carried out the work of "reshaping the talent development system", built a diversified talent training mode by classification and hierarchy, and formulated talent training plans, focusing on standardized training guidelines for key levels and professions to redraw the panorama of training.

	2023 CR Power e	employee training program	ns (partial)	
Category	Name of training	Training method	Covered population	Training frequency
	Class of deputy electric power management	Online self-study and centralized face-to-face teaching	Deputy electric power management	Quarterly
Management education	Potential talent class	Online self-study and centralized face-to-face teaching Perception assessment Post experience	Reserve talents for heads – of regional companies –	Quarterly
Training of grassroots and middle-level management	Red engine middle-level management	Centralized face-to-face teaching Executive interview	_ Middle-level management	Two phase
	Craftsman • New Grassroots Team Leader Class	Centralized face-to-face teaching	Grassroots management	One phase
Skilled talents	Cultivation of new energy skilled talents	Centralized face-to-face teaching Skills competition Exchange job rotation	Core backbone of new energy professional skills	Ongoing
	Cultivation of thermal power skilled talents	Centralized face-to-face teaching Skills competition	Core backbone of thermal – power professional skills	Ongoing
Training of new employees	"Gathering Stars" Training Class for graduates who graduated three to five years ago	Centralized face-to-face teaching	80 outstanding graduates who graduated three to five years ago	One phase
	Training Camp for Future Star of Dreams	Centralized face-to-face teaching	373 new graduates	One phas

#### Coverage rate of management training



Coverage rate of senior management training

Coverage rate of middle-level management training







#### Average training time per employee by rank and type of employee





#### Average training time per employee by gender





The second training of the "Highly Potential Talents Class" in Guangzhou Company



Opening ceremony of North China Camp I of 2023 "Future Star" New Employee Training Camp

#### **Smoothing development channels**

We actively improved the rank management system and issued the "Post Rank Atlas" and "Employee Rank Management Measures" to standardize the qualifications and organizational procedures for employee rank promotion. At the same time, we clarified and defined the corresponding relationships between the job ranks of management and employees at various levels of the headquarters, major regions, and regional companies. Taking into account key business needs, differences in position value, and the differing talent quality requirements for different job series/professions, we established differentiated promotion channels to facilitate the development pathways for talent, effectively promoting the overall planning and exchange of professional talents at the headquarters, major regions, and regional companies.

- Employee promotion channel: Following the principle of horizontal segregation by job series and vertical determination of job ranks, in combination with management needs and business realities, we divided into four major horizontal series: "Management Series Professional Series Production Series Operational Series". At the same time, in line with the practical aspects of business management at the "Headquarters Major Regions Regional Companies," we designed different hierarchical structures for different series, clarifying the promotion paths and standards for each series and level, thereby providing employees with more equitable and transparent development opportunities.
- Annual comprehensive evaluation: We comprehensively optimized the evaluation system by implementing a multi-dimensional comprehensive evaluation mechanism including ability and quality, work style, organizational atmosphere, team efficacy, performance scores, Party-building assessment, work report review, interview, and meeting, etc. The aim was to deeply tap into the existing talent resources and effectively drive the implementation of a mechanism featuring "promotion for the capable, shift for the average, and demotion for the underperforming" to ensure mobility within the ranks.

In 2023, a total of 2,662 employees were promoted through evaluations, with senior managers and above accounting for 47%, thereby expanding our management and talent pool. We achieved 100% completion of the evaluation work for the regularization of employees from their trial ranks, with 3,062 trial rank employees successfully becoming regular employees and a regularization pass rate of 89%.

#### **Enhancing employee care**

We continued to carry out employee care activities, help needy employees, care for female employees, ensure work-life balance and create a warm and harmonious workplace for employees, thereby enhancing their cohesion.

- Assisting employees in difficulty: We formulated the "Management Measures for Love Assistance Fund" and gradually formed a long-term relief mechanism to help employees overcome their difficulties in life. In 2023, our headquarters issued an assistance fund of RMB175,000 to help five employees in difficulty; improved and perfected the normalized warmthgiving mechanism; further promoted the normalization of "I do practical things for the masses" practice activities, and continued to solve problems for front-line employees.
- Care for female employees: We set up care leave and care rooms for female employees, provided psychological counseling services and exchange activities; organized physical examinations for female employees covering gynecological and breast examinations, etc.; organized knowledge publicity on health care for female employees occasionally; carried out commendation activities for outstanding female employees to give full play to their role as pioneers and models.



In 2023, a total of **2,662** 

employees were promoted through

evaluations

Baby care room in Fuyang Company



Flower arranging activity for female employees in Shenyang Company

 Create a happy workplace: We organized and carried out cultural and sports activities that were well-received and widely participated in by employees, such as the first "Rundian Pioneer Cup" staff basketball league of CR Power. Trade unions at all levels held fun sports meetings, hiking activities, staff speech competitions, artistic performances, etc. to guide a healthy and positive lifestyle and create an organizational atmosphere of sincerity, unity, openness and progress.



"Rundian Pioneer Cup" staff basketball league



Badminton match in Shenshan Company



Fun sports meeting in Xiantao Company



Mooncake making activity in Shenyang Company



Theme birthday party activity in Zhejiang Company



Birthday cake tasting and purchase meeting for employees in Xuzhou Company



We adhered to the safety production policy of "safety first, prevention foremost and comprehensive management", implemented safety production responsibilities, strengthened safety production publicity, controlled safety production risks, and protected employees' occupational health, thereby creating a safe environment for enterprise operation. In 2023, the Company's total investment in safety production reached RMB819.17 million, with zero work safety accidents and 732 working days lost due to work-related injuries.

	Year 2021	Year 2022	Year 2023
Death toll due to work-related injuries (person)	0	0	1
Ratio of work-related deaths (%)	0	0	0.0045

#### **Consolidating safety management**

In 2023, we formulated the "Implementation Plan for Safety Management Strengthening Year Action of CR Power", organizing and carrying out the safety management strengthening year action, promoting the implementation of work safety entity responsibility and post safety responsibility. We continuously consolidated the safety foundation, strived to eliminate weaknesses, and effectively promoted the improvement of safety management level.



the Company's total investment in safety production reached

RMB 819.17 million

with **ZECO** work safety accidents

- Improving the safety system: We established a series of management systems to guarantee safety management. In 2023, we revised and compiled seven safety production systems, including "Guidelines for "Three Simultaneities" Management of New Energy Construction Projects", "Guidelines for Antiviolation Management (Trial)", "Guidelines for Safety Production Education and Training Management (Trial)", "Guidelines for Star Rating Management of Independent Safety Teams", "Management Measures for EHS Reward", "Management Measures for Accountability of EHS Accidents and Incidents", and "Guidelines for EHS in All Stages of Electric Power Construction Projects". Consequently, the Company's safety management system was further improved.
- Implementing safety responsibilities: We established a system of accountability for all employees: A comprehensive EHS organizational structure was set up, with each unit forming an EHS committee chaired by the principal leader of the unit, and an EHS committee office was established to be in charge of daily operations; a sound EHS accountability system was put in place, with various levels of management signing EHS target responsibility statements, clarifying safety production targets and management responsibilities; a target responsibility control system was established, with an EHS assessment method developed, and evaluations and assessments of the completion of safety production targets were conducted according to the "Management Measures for EHS Performance Evaluation"; following the "Management Measures for Accountability of EHS Accidents and Incidents", serious investigations were carried out into the occurrence of ordinary or more serious EHS accidents and incidents.

Safety production targets of CR Power:
 No ordinary level personal injury and death accidents;
 No ordinary level fire accidents;
 No ordinary level traffic accidents with the same responsibility, main responsibility and full responsibility;
 No ordinary level equipment accidents and power safety accidents specified in Decree 599 of the State Council.

#### **Fostering safety culture**

In 2023, the Company's leaders took the lead in teaching EHS courses to improve the training effect: 51 general managers of regional companies delivered EHS courses 68 times, 398 department heads delivered EHS courses 959 times, and 1,371 team leaders delivered EHS courses 4,918 times; The cumulative training duration reached 2,015,983 hours, including 596,964 hours for internal employees and 1,419,019 hours for employees of interested parties.

#### Case:

#### Carrying out EHS Knowledge Contest to Create Strong Learning Atmosphere

To strengthen employees' mastery of safety knowledge, the Company established a question bank of 8,651 safety-related questions that should be known and mastered for posts. Through learning and competition, the safety awareness and skills of grassroots production and operation personnel were enhanced. In 2023, the subordinate units of the Company organized 272 EHS knowledge competitions with more than 10,000 participants, creating a strong atmosphere for all employees to learn EHS.





units at all levels organized

1,279 safety training sessions

with **26**, **289** 

In June 2023, the Company organized subsidiary companies at all levels to carry out a safety production month activity with the theme of "everyone pays attention to safety and everyone can meet emergencies". During the safety production month, units at all levels organized 1,279 safety training sessions with 26,289 participants; organized 1,409 safety knowledge competitions with 61,344 participants; carried out 767 emergency drills with 14,721 participants, creating a strong atmosphere for safety learning and achieving good results.



Launching ceremony of safety production month in Xuzhou Company



South China Regional Headquarters conducted a fire drill



Shenyang Company carried out an emergency drill

Shenshan Company conducted firefighting knowledge training

#### Managing and controlling safety risks

We attached great importance to the management and control of safety production risks. On the one hand, we formulated a comprehensive emergency plan for emergencies and clarified emergency management and response procedures; on the other hand, we took the safety management strengthening year as an opportunity to intensify hidden danger investigation, carry out project safety inspection and business safety audit, and minimize casualties and property losses.

• **Special inspections:** In 2023, we strengthened safety inspections of construction projects. By conducting, quarterly inspections in large regions, monthly inspections in regional companies, and weekly inspections of construction projects, we aided in the control and management of safety risks in construction projects. The headquarters carried out safety inspections on a total of 49 construction projects throughout the year, found 2,154 problems, and put forward 2,176 rectification suggestions.



Safety inspection in Zhenjiang Company



Safety inspection of unit maintenance site in Heze Company

- Conducting business audit: In 2023, we formulated production business safety audit standards and completed safety audits of 50 regional companies and one infrastructure mine. We helped affiliate companies find problems, formulate measures and carry out closed-loop rectification. As a result, a total of 4,338 hidden problems were found, and mutual inspection, learning and supervision among regional companies were promoted.
- Improve the safety management of suppliers: In the "EHS Management Guidelines for Related Parties" revised by the Company in 2022, the fundamental principles of "business management shall be accompanied by safety management, and production and operation management shall be accompanied by safety management" and "whoever uses labor shall manage and take responsibility" into the basic requirements of the system, and the management requirements such as "prior control" and "blacklist" of related parties were modified.

#### **Ensuring occupational health**

In accordance with the Law of the People's Republic of China on Prevention and Control of Occupational Diseases and other laws and regulations, we formulated the "Occupational Health Management Standards", advocating healthy production and lifestyle. By improving the working environment and holding occupational health publicity and education activities, we aimed to create a healthy and comfortable working environment for employees and guide them to do a good job in occupational health work. In 2023, the coverage rate of occupational health files for employees of the Company reached 100%, and there was no occurrence of occupational diseases.

- Improving the working environment: We optimized dormitory configuration, set up an infirmary, health corner, staff canteen, etc., purchased air purifiers, and constructed simple fitness facilities, basketball courts, badminton venues, and other facilities for employees to exercise in the living and leisure areas.
- Improving protection awareness: We set up a mental health consultation room for employees, held health knowledge lectures, and organized comprehensive training on occupational health protection, thus continuously improving the health care awareness of employees.



Dengfeng Company organized occupational health training



Guangxi Company conducted training on emergency rescue certificate



China Resources Power (Panjin) Co., Ltd. carried out the theme activity of Occupational Health Week



Practical operation of CPR in Shanxi New Energy Company



the coverage rate of occupational health files for employees of the Company reached

100%

**NO** occurrence of occupational diseases



# Generating "electricity" to serve communities and residents

Electricity, as a vital form of energy, provides continuous impetus for economic development and also brings light and warmth to society. CR Power insists on protecting the rights and interests of customers, resolutely shouldering the responsibility of ensuring energy supply, unswervingly serving the people, and continuously creating more value for social and economic development.

#### Carrying out responsible marketing

We were committed to conducting electricity marketing more responsibly and creating a fair electricity sales market. Internally, we regularly carried out thematic training on electricity market theory and responsible marketing for electricity sales business personnel. In 2023, we held the Electricity Sales Business Training and the First Electricity Trader Competition in Nansha District, Guangzhou to comprehensively review the theoretical literacy and skill level of sales personnel. Externally, our electricity sales companies all adopted the standard contract templates issued by provincial electricity trading centers. They did not sign supplementary agreements with customers or change contract terms. They provided customers with market price analysis, explained relevant risks of entering the market, and regularly organized training on policy interpretation for customers to create a fair electricity marketing environment. In 2023, we carried out five customer fair marketing training activities and published 33 articles related to fair marketing online.



CR Power 2023 Electricity Sales Business Training and the First Electricity Trader Competition

#### Improving service quality

We always adhered to the customer service concept of "response with speed, demand with accuracy, process with warmth and satisfaction with height". We provided customers with efficient and diversified quality services, actively obtained customer feedback, continuously improved service content based on relevant suggestions, and improved customer service experience.

#### **Diversified customer service**

We provided customers with diversified services such as "7×24 hours" dedicated follow-up customer service and special training to meet their different needs. We strictly implemented the "responsibility system", formulated the "Guidelines for Customer Service Management of Electricity Sales Business Customer Service Center", established a closed-loop management process of customer service, standardized the code of conduct of customer service personnel, and continuously optimized customer experience; provided customers with education and training activities such as Green Electricity Transaction Introduction and Case Sharing and Low and Zero Carbon Road of Enterprises to enhance customer stickiness and enrich customer experience.

#### E Case:

#### "Progress with Green Electricity, Gratitude for Companion" – Listening to Customers' **Voices and Responding to Customer Needs**

To maintain the Company's market-oriented electricity user relationship, improve customer service quality and achieve long-term friendly cooperation with high-quality users, the Company organized its subordinate units to jointly hold five marketing planning series activities themed "Progress with Green Electricity, Gratitude for Companion" from June to November in 2023.

These activities fully investigated the cooperation needs of users, designing green power plant visits, corporate culture publicity, special training on spot electricity and green low-carbon trading, user Q&A, customer satisfaction surveys and other links. More than 200 enterprise representatives with high-quality electricity users were selected to visit five projects of Henan New Energy Company, Shanxi New Energy Company, Guangxi Company, Sunan Company and Northeast Region New Energy Company of CR Power respectively. The activities were highly praised by customers, and maintained and strengthened customer relationships.



"Progress with Green Electricity, Gratitude for Companion" series activities • Datong



customer satisfaction surveys, with an overall average score



#### Attaching importance to customer feedback

We regarded improving customer satisfaction as an important target of conducting business, attached great importance to the feedback from customers, actively carried out customer satisfaction surveys, and fully understood different needs of customers, so as to determine the improvement direction of future business services and continuously improve the overall service level. In 2023, we conducted customer satisfaction surveys in the form of online questionnaires and telephone interviews, with an overall average score of 88.9 points.

We also provided diversified complaint channels for customers. Customers could make complaints through the online business hall, 400 customer service hotline and 106 SMS collection platform. After we receive a complaint, we would handle it in time according to the whole process of "complaint acceptanceunderstanding of customer complaint-analysis of complaint causes-handling of the complaint-return visit of complaint" and standardized customer complaint handling mechanisms to ensure that satisfactory solutions could be offered to customers after complaints.

#### **Network information security**

We paid attention to network information security, constantly improving the organization and management system of network security, enhancing the construction of network security systems, taking multiple measures to prevent network security risks, strengthening data information protection and management, and firmly building a defense line for network security.

#### Improving the organizational system

In 2023, we further improved the safety management organizations within the company. We adjusted and optimized the Network Security and Informatization Leading Group and the Intelligent and Digital Development Committee to be fully responsible for the decision-making, coordination, promotion and implementation of network security work, improved the network security organization and management system, and clarified the responsibility of network security work security work Security Working Group was set up to be responsible for the daily supervision and implementation of the Company's network security work.

#### Improving system construction

In 2023, we issued system specifications such as "Guidelines for Network Security Protection of Industrial Control Systems", "Guidelines for Management of Cybersecurity Incidents", "Guidelines for Event Management of IT Application Systems", "Specifications for IT Construction of CR Power Plants", "List of Normalized Operation and Maintenance Work of Network Security" and "Measures for Switching between Peacetime and Wartime of Network Security" to further guide all units to carry out network security work in an orderly manner and improve the overall network security management level and protection capability of the Company.

#### **Preventing network risk**

We continued to strengthen and promote network security risk prevention, enhanced employees' awareness of network security, and effectively improved their ability to prevent network risks by organizing network security training, upgrading office systems, and carrying out virus and ransomware emergency drills. In 2023, there were no customer data information leakage accidents and network information security accidents in the Company.

In 2023, the Company organized publicity and education activities such as Network Security Publicity Week and Special Training on Anti-phishing Network Security Awareness through online and offline forms. The aim was to enhance the network security awareness of all employees and create a strong atmosphere for jointly building a network security defense line.



Network Security Publicity Week activity

#### **Ensuring power supply**

Faced with multiple problems such as intensified fluctuations in fuel prices and the prominent contradiction between power supply and demand nationwide, CR Power resolutely shouldered the main responsibility of ensuring energy and power supply. We took various measures to ensure the secure and reliable supply of fuel and fulfill the heavy responsibility of guaranteeing the supply of electricity, secure the safety and reliability of electricity for people's livelihoods, and safeguard the bottom line of electricity consumption for the public welfare.

#### Secure supply of fuel

The secure and stable supply of fuels such as coal is crucial to power generation enterprises, which is directly related to their production, operation and power supply. We enhanced our coal supply capacity by continuously improving the construction of energy supply guarantee organizations, establishing a coal procurement center with steady growth, and facilitating the electricity-coal cycle.



#### Stabilizing electricity production

Affected by the superposition of internal and external environments, there was a problem of power supply shortage in some areas of China. CR Power made every effort to ensure the safe production of generator sets, achieving the goal that the generator sets could generate electricity as much as possible stably and frequently, and the safe and stable supply of electricity could be guaranteed.

- Optimized the operation mode of units and improved the resilience of electricity generation. During the summer peak in 2023, China Resources Power (Xiantao) Plant strictly implemented the "Two Permits and Three Systems", continuously optimized the operation mode of units, monitored the operation status of generator sets at all times, and timely and accurately adjusted important parameters according to instructions from the power grid. The purpose was to ensure that the high load of units could withstand and generate electricity, while the low load can be suppressed and burnt stably.
- Strengthened fine management of production equipment. China Resources Power (Panjin) Co., Ltd. issued a work plan to cope with the peak summer demand and ensure power supply, detailing measures to be implemented at every level; strengthened the refined management of power generating units, conducted reasonable maintenance according to the operating cycles of the units, promptly eliminated potential faults, comprehensively improved the healthy operation level of the equipment, and enhanced the peak power generation capacity of the units; organized activities such as staff lectures, skills competitions, and emergency drills, made meticulous adjustments to and strictly controlled unplanned outages, and continuously improved the healthy operation level of the units, laying a solid foundation and storing energy for ensuring energy supply.



Cangwu Liubao Wind Farm



the Liubao Wind Power Project

generated about RMB million for the village collective

#### **Contributing to rural revitalization**

Rural revitalization is inseparable from the support and promotion of electricity. We actively responded to the national call and gave full play to our resource platform advantages. We promoted the economic development of rural areas according to local conditions by promoting green upgrading of industries, consumption assistance, improvement of rural infrastructure construction and other forms. In 2023, we invested RMB36.379 million in rural revitalization, benefiting more than 21,000 people.

#### Green empowered industrial renewal

We strived to promote the transformation of the industrial assistance model from "blood transfusion" to "blood generation". Based on our technological and industrial advantages in wind power and photovoltaic, we actively explored the path of "new energy +" industrial assistance. We developed an operating model where village collectives raised funds to invest in projects, creating sources of income for residents in rural areas and adding a green backdrop to rural revitalization.

South China Region: The Guangxi Company's Liubao Wind Power Project in Cangwu County, Wuzhou vigorously developed the wind power generation industry with the "new energy +" assistance mode constructed and operated by CR Power, where the village collective raised funds to invest in the project. The logo of the local characteristic Liubao tea in Cangwu County was printed on the wind turbine tower to create a characteristic tourist attraction. This project promoted the integrated development of culture and tourism for the Liubao tea industry, helped tea farmers increase their income, and effectively promoted the economic development in Cangwu County. In 2023, the Liubao Wind Power Project generated about RMB3 million for the village collective.

#### Increased farmers' income through consumption assistance

We adhered to the principle of "assistance through purchasing". Through purchasing agricultural products from rural areas and implementing other strategies, with practical action we successfully addressed the challenges faced by villagers in finding a market for their products, increased the income of rural residents, and promoted rural revitalization with practical actions.

• East China Region: Zhenjiang Company, when local agricultural products such as rice, grapes, and eggs in economically weaker villages and towns reached maturity for entering the market, proactively contacted local town officials to purchase these agricultural products. This resolved the difficulties villagers faced in selling their agricultural and sideline products and enhanced their income level. In 2023, Zhenjiang Company invested a total of RMB352,805 in poverty alleviation through consumption.



Agricultural and sideline products purchased by Zhenjiang Company

#### Improving infrastructure construction

We paid attention to the daily needs of villagers, accurately connected with the assistance needs of people in poverty-stricken areas, and improved the construction of rural infrastructure, making every effort to build beautiful countryside.

• Central China Region: Starting from the happy life of rural residents, Sichuan Company invested about RMB2.256 million to assist in the construction of CR Hope Town in Nanjiang County. Supporting infrastructure such as outdoor water supply and drainage systems, strong and weak electricity, sewage treatment equipment, low-carbon power storage equipment, etc. were built to integrate into the smart energy system and create a beautiful living environment in the countryside in an all-round way. The CR Hope Town in Nanjiang County was completed in June 2023, benefiting a total of 411 villagers from 132 households.



Rooftop PV of public buildings in CR Hope Town, Nanjiang



Zhenjiang Company invested a total of

RMB352,805 in poverty alleviation through consumption



Sichuan Company invested

about RMB **2.256** million to assist in the construction of CR Hope Town in Nanjiang County

#### Officials stationed in villages for new impetus

We selected outstanding talents to serve as "chief secretaries" in rural areas. Based on local realities, the cadres went deep into the fields to understand villagers' difficulties, adhered to a problem-oriented approach, devoted themselves to poverty alleviation, led the team, focused on governance, promoted projects, and sought development to add strong impetus to rural revitalization.

Chongqing Energy Investment Group: To better carry out the assistance work, in June 2023, Chongqing Energy Investment Group appointed the chief secretary stationed in the village and established a working team in Bancang Village, Yanwan Township to go deep into the front line of rural areas. The working team in the village took the initiative to integrate into the work of the village committee and visited 24 households successively to understand the basic living guarantee and drinking water safety of villagers. Considering the fact of weak industries and insufficient basic conditions in Bancang Village, the working team in the village and the village committee jointly explored an e-commerce sales model with the village collective economic cooperative as the main body to help villagers expand the sales channels of fresh fruits. The first batch of products achieved breakthroughs only five days after product launch. The first secretary stationed in the village actively communicated with assistance units, formulated consumption assistance plans, and promoted consumption assistance work. A total of RMB14,130 was completed for consumption assistance.





#### Passion for public welfare and charity

We firmly believe that the development of CR Power is inseparable from the concern and support of all sectors of society. Therefore, we devoted ourselves to public welfare and charity, formulated and implemented the "Management Measures for External Donations", and carried out public welfare activities such as caring condolences, donations to poor students, environmental protection public welfare, publicity on electricity consumption, etc., to convey the warmth of CR Power to the society. In 2023, we had 2,016 volunteers and carried out 213 voluntary activities with a total of 3,801 participants, investing RMB49.89 million in charity.



we had 2,016 volunteers

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#### **Caring condolence**

We organized a youth volunteer service team to visit the care center for the elderly with severe disabilities, chatting and communicating with them, massaging them, tidying up their rooms, and conducting safety inspections on electrical equipment and lines in the care center to eliminate potential hazards of electricity. We joined the "Home of Hope" public welfare project of Suizhou and went to Suizhou Children's Welfare Institute to carry out caring condolence activities, serving more than 60 children in total.

#### **Donations to poor students**

We paid attention to community education, organizing and carrying out diversified public welfare activities for students over the years, dedicating ourselves to building a responsible brand "Energy Classroom". As of 2023, seven "Energy Classrooms" were built in rural areas such as Hechi in Guangxi, Yuexi in Sichuan and Taizhou in Jiangsu. We purchased hardware facilities such as smart blackboards and intelligent lecture platforms for students in the "Energy Classroom" and equipped them with rich educational software. Through the combination of multimedia equipment and digital technology, rural students enjoyed a more efficient and intuitive learning experience and better education resources, and the education quality was effectively enhanced.





"Energy Classroom" charity lecture in Hechi, Guangxi

#### **Publicity on electricity**

We cooperated with the School of Electrical Engineering of Guangxi University to jointly carry out volunteer teaching activities of "I Do Practical Things for the Masses, Science Popularization on Electricity Safety in Campus". Through diversified forms such as image-text explanations, playing promotional videos on the safe use of electricity, and interactive Q&A, we vividly educated more than 150 students at Fuchuan CR Primary School about how to use various common household appliances scientifically and safely, as well as basic emergency measures for electric shock. This aimed to enhance students' awareness of electrical safety and safeguard their healthy growth.



Group photo of the activity "I do practical things for the masses, power safety science popularization into campuses"

# **Staying Committed to the Original Aspiration for Steady Operations**

LUKI BETERITE

THE STATES

## Challenges

In the past year, the power sector was in an environmental background of continuous price fluctuations of bulk commodities like coal, accelerated energy structure transformation and increasingly strict electricity market management, which brought a series of transition compliance risks to the development of power enterprises. Therefore, how to improve the corporate governance level, strengthen decision-making ability, strengthen compliance management and enhance risk prevention and control ability to cope with various transition compliance risks, seize new opportunities for energy transformation and promote sustainable development has become a great challenge that power enterprises must face.

#### Actions

- Continuously improve the Company's structure of the Board of Directors and governance system, and improve corporate governance and decision-making capabilities.
- Continuously improve the concerns of managers' economic responsibility audits and quantify their performance, continue to improve the audit rectification mechanism, intensify accountability for violations, explore research-based audit and information-based audit topics, and enhance the effectiveness of the audit team.
- Strictly abide by business ethics, deepen anti-corruption supervision and promote the construction of an integrity culture.

**SDGs** 





# Improved Corporate Governance

In 2023, the Company held:

**TWO** general meeting of shareholders

Nine board meetings

Audit and Risk Committee

**TWO** meetings of the Remuneration Committee

**One** meeting of Sustainability Committee



CR Power continued to improve the Company's governance system, promote the diversification of board members, and strengthen the construction of governance system to achieve a more efficient and comprehensive governance and decision-making process and enhance the Company's operation efficiency.

#### **Structure of the Board of Directors**

CR Power abided by the requirements of Appendix 14 "Corporate Governance Code" to the Main Board Listing Rules of the Stock Exchange of Hong Kong, and continuously improved its corporate governance structure and management system. In 2023, the Company revised and compiled corporate governance systems such as the "'Three Majors and One Large' Decision-making Mechanism", the "Charter of the Board of Directors" and the "Rules of Procedure for the Board of Directors" to standardize CR Power's decision-making meeting mechanism, procedures, reporters and proposal templates and improve the quality and efficiency of decision-making meetings; The Company revised the "CR Power Rights and Responsibilities Operation Manual", confirmed the "List of Matters to be Reported by Chongqing Energy Investment Group to CR Power for Review", clarified the rights and responsibilities of each subject of the Company, and ensured that decisions on various important matters were based on evidence.

The main responsibilities of the Board of Directors include formulating the overall strategic direction of the Company, determining long-term performance and management objectives, formulating policies and supervising their implementation, monitoring the performance of the management, and ensuring that the Company's business activities comply with laws, regulations and business ethics requirements. In 2023, the Company's Board of Directors held a total of nine meetings and performed its duties with high quality and efficiency. The level of corporate governance was steadily improved, and it won the "2023 Institutional Investor's Best Board of Directors Management Award in Asian Utility and Renewable Energy Sector".



Regulatory Framework of CR Power

The board diversity policy is the basis for comprehensive, inclusive and responsible decision-making. It is also a key factor in the continuous improvement of our corporate regulation. In reviewing the composition of the directors, selection criteria and search for qualified directors, the Committee will take into account the diversity conditions required by the nomination policy and 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 2023, CR Power had a total of 10 directors (including one female director), including three executive directors, three non-executive directors and four independent non-executive directors.

#### **Organizational structure**



#### Improve the governance system

The Company continued to promote the systematization, standardization and efficiency of system management to lay a solid foundation for efficient governance. It carried out system inspection as a whole, established the plan of "formulation, modification and abolition" of systems, abolished 17 systems at the holding company level, established 116 revision plans, and revised and issued 83 systems throughout the year; revised the "Regulations on Management of Rules and Regulations of CR Power" to improve the systematicness and standardization of institutional system construction; based on the institutional system of CR Power, 56 Basic Systems Necessary for CR New Energy were formulated and issued to standardize the development of various businesses of new energy.

# Complete compliance system

CR Power always believes that a sound compliance system is an important foundation to ensure the stable operation of the Company. It is committed to building a more sound compliance management system, strengthening internal control, risk prevention and control and audit management, deepening the construction of business ethics and integrity culture, and helping the sustainable development of the Company.

#### **Compliance management system**

The Company formulated the "Compliance Management System (Trial)", established a compliance management organization system combining four levels of "decision-making-management-implementation-supervision", and comprehensively carried out compliance management in accordance with the principles of comprehensiveness, relative independence, importance and continuous improvement.

Compliance management system						
Roles & responsibilities	Responsibility subject	Main responsibilities				
	Board of Directors (top leadership and decision-making body)	<ul><li>Approve the overall planning of compliance management system</li><li>Promote the improvement of compliance management system</li></ul>				
Decision-making, guidance and approval	Law-based Enterprise Management, Risk Control and Compliance Management Committee	<ul> <li>Study and decide on major issues of compliance management of CR Power</li> <li>Guide, supervise and evaluate compliance management</li> <li>Approve specific compliance matters like related party transactions</li> </ul>				
Approval and execution	Management team	<ul> <li>Examine and approve the annual compliance management work plan, annual compliance management report, major compliance risk response plan, effectiveness evaluation report of compliance management system, etc.</li> <li>Promote the construction of compliance culture</li> </ul>				
Organization, coordination and supervision	Legal Compliance Department	Organize, coordinate and supervise the compliance management of CR     Power and provide compliance support for other departments				
Implementation	Other business and functional departments	Responsible for the implementation of compliance management work of the department				
	Audit Department	• Conduct independent supervision on the compliance management system				
Independent supervision	Discipline Inspection Department	Perform supervisory duties within the terms of reference				

The Company strictly implemented the "Management Measures for Prevention of Conflicts of Interest of China Resources Group", and drafted the "Management Measures for Prevention of Conflicts of Interest" in combination with its own actual work situation to standardize the management of prevention of conflicts of interest of the Company, clarify the management requirements of red line list of related matters such as related party transactions, investment and shareholding, business operation, etc., and ensure the continuous compliance, healthy and stable development of the Company.

On the other hand, to standardize compliance management in the field of overseas anti-commercial bribery, the Company formulated and implemented the "Measures for Compliance Management of Overseas Anti-Commercial Bribery" and "Guidelines for Compliance Management of Anti-Commercial Bribery in Overseas Businesses" in 2023 according to domestic and foreign laws and regulations as well as the Group's overseas anti-commercial bribery compliance management system, to effectively resist overseas commercial bribery, strengthen the awareness of compliance and self-discipline in overseas business, and prevent and control overseas compliance risks.

The Company also continued to improve the compliance complaint reporting mechanism and formulated the "Guidelines for the Management of Complaints and Reports about Compliance Work" to ensure the effective operation of the compliance management system. Employees, external suppliers and other stakeholders can complain and report to the Legal Compliance Department of CR Power on work issues such as compliance management system construction, special compliance and compliance supervision by e-mail. The Legal Compliance Department will respond to the complaints and reports within seven working days.

# Strengthen internal control management

The Company took internal control construction and supervision as the starting point, strengthened daily management and control in key areas, carried out internal control self-evaluation, internal control supervision and evaluation, and regularly promoted rectification of internal control defects to further improve its management and control efficiency. By the end of 2023, all 191 internal control defects found by the Company have been rectified.

# Build a solid line of defense against risks

The Company built a risk management organizational structure with clear functions and division of labor, efficiently carried out the assessment, response and control of operational risks, and continuously strengthened the ability to prevent and control risks.

#### **Risk management framework**

The Company organized the establishment of a Law-based Enterprise Management, Risk Control and Compliance Management Committee directly led by the Chairman of the Board of Directors, which is responsible for coordinating and managing the internal control and risk management of the Company, formulating work plans and annual plans for internal control and risk management, and reviewing relevant important decisions, major issues and important schemes; The Law-based Enterprise Management, Risk Control and Compliance Management Office was set up under the Committee, which is responsible for the overall planning, organization, coordination and promotion of the implementation of specific work.

#### Risk assessment

According to the "Internal Control Management System", the Company collected relevant information comprehensively, systematically and continuously, accurately identified internal and external risks related to the realization of control objectives through three steps: risk identification, risk analysis and risk evaluation, and evaluated the corresponding risk tolerance.

Risk assessment process

<b>Risk identification:</b>	Risk analysis:	Risk assessment:
Each unit finds risks in various important business areas, important business activities, important businesses and management processes through comprehensive system evaluation, and	Clearly define and describe the identified risks and their characteristics, and analyze the possibility of risk occurrence and the conditions for risk occurrence.	Assess the degree of impact and consequences of risks on CR Power's achievement of objectives.
determines risk categories.		

In December 2023, the Legal Compliance Department organized all departments and offices of the Company, major regions, regional companies, directly controlled units and Chongqing Energy Investment Group to carry out major risk assessments in 2024 and prepare a list of the top ten major risks of CR Power in 2024.

#### List of Top Ten Major Risks of CR Power in 2024:

- Investment management risk
- Work safety and environmental protection risks
- Risks of policy changes, macroeconomic and social responsibilities
- Procurement management risk
- Fuel management risk
- Integrity risk
- Risk of new energy land and house compliance certificate
- Technological innovation risk
- Financial risk
- Public opinion and reputation risk



By the end of 2023, all 191 internal control defects found by

the Company have been rectified

#### **Risk response and control**

According to the results of risk assessment, each unit of the Company weighed risks and benefits in combination with risk tolerance, and comprehensively used risk response strategies such as risk avoidance, risk reduction, risk sharing and risk bearing to realize effective management of risks; Through the combination of preventive control and discovery control, control measures such as separation of incompatible duties control, authorization approval control, accounting system control, property protection control, strategy implementation and budget control, operation analysis control and performance evaluation control were implemented to control risks within acceptable levels.

#### Strengthen audit management

The Company conscientiously implemented the spirit of Xi Jinping's important instructions on audit work, focused on its main responsibilities and business, kept a close eye on key areas, key posts and major risk links, and took "strengthening mechanism, improving quality and efficiency, fulfilling responsibility and optimizing team" as the main line to escort the high-quality development of the Company.

Establish a "1+N" audit management mode to improve team effectiveness.	Three audit centers were established in regional companies and incorporated into the integrated management of headquarters to form an audit control mode of "headquarters + center". The audit team is more stable and professional, and the independence of the audit is continuously strengthened.
Adhere to the requirement of "comprehensive coverage" and carry out strict review.	In the whole year, 35 audit projects were implemented, including 22 economic responsibility audits and 13 special audits in key areas such as new energy development, thermal power fuel management, energy storage, scientific and technological research and development, investment withdrawal, etc. A total of 978 problems were found to reveal business risks in a timely manner.
Implement the "second half" of audit rectification.	Optimize the audit rectification information system, establish six mechanisms of audit rectification benchmarking ranking, communication linkage, supervision and reminder, accountability, performance appraisal and scheduling interviews, and continuously improve the effectiveness of rectification.

#### Adhere to business ethics

The Company strictly followed the "Anti-monopoly Compliance Guidelines", "Measures for the Administration of Trade Secrets", "Measures for the Administration of Confidentiality of Confidential Personnel" and other normative systems, actively carried out special training on business ethics such as anticorruption and anti-commercial bribery, anti-unfair competition, trade secret protection and legal compliance to enhance the awareness of business ethics of all employees.

In terms of business ethics management of suppliers and contractors, the Company required all suppliers to sign the "Sunshine Declaration". It is strictly prohibited for suppliers and contractors to obtain cooperation opportunities with the Company by improper means such as providing personal interests for employees of the Company and bidding collusion, and bribery and corruption shall be eliminated. The Company signed relevant agreements with suppliers and contractors to make clear requirements on the protection of human rights, safe and civilized construction, environmental protection and other contents, to improve the level of business ethics of suppliers.

#### Anti-corruption and integrity construction

The Company attached great importance to anti-corruption work, continuously promoted the construction of the "three anti-corruption" system, regularly carried out "general supervision", organized special training on integrity culture, seriously dealt with corruption and bribery and other violations of laws and disciplines, constantly improved the awareness of incorruptible employment of all employees, built a clean defense line, and created a clean and upright working atmosphere.

#### Special work of "general supervision"

The Company has built a "general supervision" system covering "headquarters, major regions, regional companies and functional departments". In 2023, it carried out in-depth supervision around the work topic of "improving the quality and efficiency of grassroots supervision and preventing and resolving risks and hidden dangers", and identified and solved integrity problems existing in the corporate governance process through special inspections and business guidance in areas with high integrity risks such as new energy construction and rural revitalization, to prevent and resolve integrity risks.

#### **Construction of an integrity culture**

The Company continued to promote the construction of an integrity culture, carried out anti-corruption training for employees at all levels, organized theme activities such as "Integrity Publicity to Grassroots" and "Integrity Classes on the Front Line", conducted 4,628 integrity warning education sessions throughout the year with nearly 110,000 participants, and continuously strengthened integrity education; The publicity of integrity culture was deepened, and 1,019 integrity articles and news reports were published through publicity carriers such as "Runyuehao", the website of CR Power Discipline Inspection Commission and the WeChat official account of "Integrity CR Power" to create a good atmosphere for incorruptible employment.

#### E Case:

#### CR Power Party Conduct and Government Integrity Education Center Official Unveiled

In March 2023, the Company held the 2023 Party Building Discipline Inspection Working Conference and Party Conduct and Integrity Construction Meeting, and officially unveiled the completed "CR Power Party Conduct and Government Integrity Education Center". As the first integrity warning education base of CR Power, since its inauguration, the Party Conduct and Integrity Education Center has received nearly 1,000 visitors from 30 batches of units, local government departments and business cooperation units of CR Power for on-site visit and learning. It has become an important platform for the company to carry out warning education and an important position to promote integrity culture, further enriching the Company's educational means to carry out integrity warning.



CR Power Party Conduct and Government Integrity Education Center

#### **Punish corrupt practices**

The Company punished corrupt practices in strict accordance with national laws and regulations as well as the rules and regulations of the Group and the Company, adopted a "zero tolerance" attitude, established a case review mechanism, analyzed the causes of corruption incidents, and strengthened integrity risk control in future operation. In 2023, a total of four people were disciplined for corruption-related violations in the Company, including one suspected of corruption and three suspected of accepting bribes, all of whom were dismissed.

#### Integrity reporting mechanism

The Company established a sound reporting management and handling mechanism to ensure that all employees and interested parties could report suspected violations involving the Company through integrity telephone, integrity mailbox, supervision website and other channels under confidential conditions. We made strict requirements on the information and rights protection of whistleblowers, ensured that the identity of whistleblowers was kept confidential, and promised that employees would not be unfairly dismissed, harmed or improperly disciplined due to reporting.

# A Glance at the Future

The year 2024 marks the 75th anniversary of the founding of the People's Republic of China, and it is also a key and crucial year to achieve the goals and tasks of the 14th Five-Year Plan. Facing new development trends, CR Power will seize the opportunity of new energy development, accelerate the energy structure's transformation, expand the scale of the integrated energy service market, strongly support the construction of a new power system, and strive to drive the Company towards high-quality development. Meanwhile, we will firmly anchor to the "carbon peaking and carbon neutrality" goals and insist on achieving an additional renewable energy installed capacity of 40 million kilowatts by 2025. Based on five major business segments: integrated energy supply, energy storage, charging and swapping services, low-carbon energy-saving services, and integrated energy services, we will focus on cutting-edge green and low-carbon technologies such as hydrogen energy, new energy storage, virtual power plants, and CCUS to accelerate the green transformation and upgrading while practicing the concept of sustainable development.

With firm determination and unwavering dedication, we will achieve greater success. In 2024, we will remain tenacious and enterprising, take more solid steps, and stride forward courageously on the journey of the "14th Five-Year Plan". We will make unremitting efforts to achieve higher quality and more sustainable development, persistently striving towards the corporate vision of becoming a world-class clean energy supplier and integrated energy service provider!



# Appendix

# **Responsibility Awards**

Awards	Conferred by	Recipients	Date
Ranked first in "China ESG Listed Companies Pioneer 50 in Greater Bay Area"	Research Group of the Guangdong-Hong Kong-Macao Greater Bay Area ESG Action Report	China Resources Power Holdings Co., Ltd.	August 2023
Ranked second in the "Central Enterprises ESG Pioneer 100 Index" and rated a Five-Star Enterprise	Research Group of the Blue Paper on ESG of Listed Central SOEs (2023)	China Resources Power Holdings Co., Ltd.	September 2023
Selected as a constituent of the Hang Seng Corporate Sustainability Benchmark Index and the Hang Seng ESG 50 Index for four consecutive years	Hang Seng Indexes Company Limited	China Resources Power Holdings Co., Ltd.	September 2023
CSR Benniu Award for ESG Pioneering Enterprise in 2023	CSR Forum and CSR Institute	China Resources Power Holdings Co., Ltd.	November 2023
Environmental, Health and Safety Award – Platinum Green Management Award – Gold Corporate Green Governance Award – Corporate Leadership	Hong Kong Green Council	China Resources Power Holdings Co., Ltd.	November 2023
Ranked first among the Greater Bay Area Business Sustainability Index constituents	CUHK Centre for Business Sustainability	China Resources Power Holdings Co., Ltd.	November 2023
2023 China Corporate Social Responsibility Ranking by YiMagazine – Environmental and Ecological Contribution Award	YiMagazine	China Resources Power Holdings Co., Ltd.	December 2023
Two third prizes in the SASAC Digital Scenario Innovation Competition	State-owned Assets Supervision and Administration Commission of the State Council	China Resources Power Holdings Co., Ltd.	June 2023
2023 National Power Industry Equipment Management Demonstration Project	China Electric Equipment Management Association	China Resources Power Holdings Co., Ltd.	December 2023
First Energy Electronics Industry Innovation Competition Key Terminal Application Track Excellent Award	Industry Development and Promotion Center, Ministry of Industry and Information Technology	China Resources Power Holdings Co., Ltd.	December 2023
The project "Development and Application of Key Technologies for Medium and High Wind Speed Wind Turbines Based on Multi-source Data Fusion" has won the First Prize for Scientific and Technological Progress in the Xinjiang Uygur Autonomous Region	The People's Government of Xinjiang Uygur Autonomous Region	CR Power Technology Research Institute Co., Ltd.	April 2023
Inclusion of CR Power's ERP and electronic mall business integration in the <i>2023 Energy Enterprise</i> <i>Informatization Innovation Achievements and Practice</i> <i>Cases</i> organized by the China Information Industry Association	China Information Industry Association	CR Power Rundian IT Co., Ltd.	November 2023
Provincial Soil and Water Conservation Demonstration Project	Guizhou Provincial Water Resources Department	Deshun Wind Farm of China Resources Power Holdings Co., Ltd.	January 2023
Excellent Enterprise of New Energy and Renewable Energy in 2022	Shandong Province Electric Power Enterprise Association	China Resources Power New Energy (Dongying) Co., Ltd.	January 2023
Advanced Unit of Work Safety	Henan Provincial Occupational Safety and Health Association	Henan CR Power Shouyangshan Co., Ltd.	January 2023
Certificate and Medal of Excellent Discipline in I&C Technical Supervision of Power Generation Enterprises in Hunan Province in 2022	Hunan Electric Power Technology Center	China Resources Power (Lianyuan) Co., Ltd.	January 2023

Awards	Conferred by	Recipients	Date
First Prize of Paper at the 2022 National Annual Conference on Intelligent Power Generation Technology and Thermal Control Automation Technology in Power Industry	China Electricity Technology Market Association	China Resources Power Jinzhou Company	January 2023
Advanced Unit of Work Safety in 2022	Hunan Provincial Occupational Safety and Health Association	Hunan China Resources Power Liyujiang Co., Ltd.	February 2023
300MW Excellent Unit	China Electricity Council	Cangzhou China Resources Power Thermal Power Co., Ltd.	March 2023
First Prize in Paper Evaluation of the 6th Forum of Thermal Fuel Intelligent Management Technology in 2023	China Electricity Technology Market Association	Guangzhou China Resources Power Thermal Power Co., Ltd.	March 2023
Third Prize for Information Technology Application Innovation Achievements of Power Enterprises in 2022	Specialized Cooperation Committee of Electric Power Informatization	China Resources Power (Tangshan Caofeidian) Co., Ltd.	March 2023
Professional Technical Innovation Achievements of Thermal Power Fuel in 2022 (Four-star)	China Electricity Technology Market Association	Fuyang China Resources Power Co., Ltd.	March 2023
Second Prize in Paper Selection of the (6th) Seminar on Intelligent Technology for Power Equipment Management	China Electricity Technology Market Association	China Resources Power Central and Western Region New Energy Operating Company	March 2023
The Innovative Heating Technology for LP Cylinder Zero Output Transformation in #2 Unit Awarded First-Class Distinction at the 2022 National Equipment Management Innovation Achievement Technology Award in the Electric Power Industry	China Electric Equipment Management Association	China Resources Power Jinzhou Company	April 2023
First Prize of the 29th Enterprise Management Modernization Innovation Achievements of Jiangsu Province	Approval Committee office of the Jiangsu Provincial Enterprise Management Modernization Innovation Achievement	Nanjing Chemical Industrial Park Thermal Power Co., Ltd.	April 2023
2022 Responsible Company of the Year in Henan Province	Henan Daily, State-owned Assets Supervision and Administration Commission of Henan Provincial People's Government, Henan Provincial Local Financial Supervision and Administration Bureau, Department of Industry and Information Technology of Henan Province, Henan Provincial Charity Federation	China Resources Power Central and Western Region	May 2023
5A-Grade Generator in 300MW Subcritical Pure Condensing Wet Cooling Unit in Power Industry (2022)	China Electricity Council	China Resources Power (Xuzhou) Co., Ltd.	June 2023
Excellent Case of National Healthy Company Construction	General Office of the National Health Commission	China Resources Power (Hunan) Co., Ltd.	June 2023
2022 Provincial Environmental Integrity Unit of Hunan Province	Ecology and Environment Department of Hunan Province	Hunan China Resources Power Liyujiang Co., Ltd.	June 2023
2022 Excellent Trading Practice Enterprise in the National Carbon Market	Shanghai Environment and Energy Exchange	China Resources Power (Panjin) Co., Ltd.	July 2023
5A-Grade Excellent Wind Farm	China Electricity Council	Deshun Wind Farm of China Resources Power Holdings Co., Ltd.	July 2023
4A-Grade Excellent Wind Farm	China Electricity Council	Zhaoxing Wind Farm of China Resources Power Holdings Co., Ltd.	July 2023
4A-Grade Excellent Wind Farm	China Electricity Council	Zhaoxing Wind Farm of China Resources Power Holdings Co., Ltd.	July 2023

Awards	Conferred by	Recipients	Date
AAAAA Rating, National Wind Farm Production and Operation Indicators-Henan Province in Central China (2022)	Technology Development Service Center of the China Electricity Council	China Resources Wind Power (Fengqiu) Co.,Ltd.	July 2023
AAAAA Rating, National Wind Farm Production and Operation Indicators-Henan Province in Central China (2022)	Technology Development Service Center of the China Electricity Council	China Resources Wind Power (Yuanyang) Co., Ltd.	July 2023
AAAA Rating, National Wind Farm Production and Operation Indicators-Henan Province in Central China (2022)	Technology Development Service Center of the China Electricity Council	China Resources New Energy (Neihuang) Co., Ltd.	July 2023
AAAA Rating, National Wind Farm Production and Operation Indicators-Henan Province in Central China (2022)	Technology Development Service Center of the China Electricity Council	China Resources Wind Power (Zhoukou) Co., Ltd.	July 2023
AAAAA Rating, National Wind Farm Production and Operation Indicator – North China (Onshore Area) (2022)	Technology Development Service Center of the China Electricity Council	China Resources Power Holdings Co., Ltd. Lingcheng Wind Farm (Phase I)	July 2023
AAAAA Rating, National Wind Farm Production and Operation Indicator – North China (Onshore Area) (2022)	Technology Development Service Center of the China Electricity Council	China Resources Power Holdings Co., Ltd. Lingcheng Wind Farm (Phase I)	July 2023
AAAA Rating, National Wind Farm Production and Operation Indicator – North China (Onshore Area) (2023)	Technology Development Service Center of the China Electricity Council	China Resources Power Juancheng Wind Farm (Phase I)	July 2023
AAAA Rating, National Wind Farm Production and Operation Indicator – North China (Onshore Area) (2023)	Technology Development Service Center of the China Electricity Council	Yanhuang Wind Farm of China Resources Power Holdings Co., Ltd. (Phase I)	July 2023
AAAA Rating, National Wind Farm Production and Operation Indicators-Shandong Province (Onshore Area) in North China (2022)	Technology Development Service Center of the China Electricity Council	Haiyang Wind Farm of China Resources Power Holdings Co., Ltd. (Phase IV)	July 2023
2023 CETMA "Five Small" Innovation First Prize	CETMA Operation and Maintenance Sub-Committee	China Resources Power Wind Energy (Weihai Huancui) Co., Ltd.	July 2023
2023 Electric Power Industry Quality Management Group Activity Achievement Exchange and Evaluation Result Second Prize	China Association for Water and Electricity Quality Management	China Resources Power (Hunan) Co., Ltd.	August 2023
AAAAA Rating, National Wind Farm Production and Operation Indicators-Guangdong Province (Onshore Area) in South China (2022)	Technology Development Service Center of the China Electricity Council	Fuxin and Guanshan Wind Farms of China Resources Power Holdings Co., Ltd.	August 2023
AAAA Rating, National Wind Farm Production and Operation Indicators – Guangdong Province (Onshore Area) in South China (2022)	Technology Development Service Center of the China Electricity Council	Linquan, Quanyong and Nan'ao Wind Farms of China Resources Power Holdings Co., Ltd.	August 2023
AAAAA Rating, National Wind Farm Production and Operation Indicators-Henan Province in Central China (2022)	China Electricity Council	Kangqiao Wind Farm of China Resources Power Holdings Co., Ltd.	August 2023
AAAA Rating, National Wind Farm Production and Operation Indicators-Hubei Province in Central China (2022)	Technology Development Service Center of the China Electricity Council	Jingqiao Wind Farm of China Resources New Energy Investment Co., Ltd. Suizhou Branch	August 2023
AAAA Rating, National Wind Farm Production and Operation Indicators-Hubei Province in Central China (2022)	China Electricity Council	Shuangquan Wind Farm of China Resources Power Holdings Co., Ltd.	August 2023
Inner Mongolia Autonomous Region Safe Culture Model Enterprise	Inner Mongolia Safety Production and Occupational Health Association	China Resources New Energy (Taibus Banner) Co., Ltd.	September 2023
Hebei Province "Provincial-level Healthy Enterprise"	Health Commission of Hebei Province, Industry and Information Technology Department of Hebei Province, Environmental Protection Department of Hebei Province, Hebei Provincial Federation of Trade Unions	China Resources (Bohai New Area) Co., Ltd.	October 2023
Hebei Province "Provincial-level Healthy Enterprise"	Health Commission of Hebei Province, Industry and Information Technology Department of Hebei Province, Environmental Protection Department of Hebei Province, Hebei Provincial Federation of Trade Unions	China Resources (Cangzhou Yundong) Co., Ltd.	October 2023

Awards	Conferred by	Recipients	Date
Inner Mongolia Autonomous Regional-level Healthy Enterprise	Health Commission of Inner Mongolia Autonomous Region	Inner Mongolia Dengkou Jinniu Coal and Electricity Co., Ltd.	November 2023
CSEE 2023 Power Science and Technology Second Prize Award	Chinese Society for Electrical Engineering	Guangzhou China Resources Power Thermal Power Co., Ltd.	November 2023
"Reducing the Back Pressure in Steam Turbine Operation" Wins "QC" Special Award	China Electricity Technology Market Association	China Resources Power (Inner Mongolian East) Co., Ltd.	November 2023
Invention Patent Certificate for "Method, System, and Apparatus for Judging the Disconnection of Electrical Equipment and Its PT Secondary Circuits"	China National Intellectual Property Administration	China Resources Power (Luoyang) Co., Ltd.	November 2023
2023 China Enterprise Reform and Development Outstanding Achievements First Prize	China Enterprise Reform and Development Society	China Resources Power (Hezhou) Co., Ltd.	December 2023
2023 Provincial Level Water-Saving Benchmark Enterprise	Industry and Information Technology Department of Guangdong Province, Water Resources Department of Guangdong Province	Shenzhen Shenshan Special Cooperation Zone China Resources Power Co., Ltd.	December 2023
2023 Guangxi Healthy Enterprise	Health Commission of Guangxi Zhuang Autonomous Region	China Resources Power (Hezhou) Co., Ltd.	December 2023
2023 (9th) State-Owned Enterprises Management Innovation Achievement First Prize	Chinese Institute of Business Administration	Shenzhen Shenshan Special Cooperation Zone China Resources Power Co., Ltd.	December 2023
2023 (9th) State-Owned Enterprises Management Innovation Achievement First Prize	Chinese Institute of Business Administration	China Resources Power (Hezhou) Co., Ltd.	December 2023
Hebei Province "Provincial-level Healthy Enterprise"	Health Commission of Hebei Province	China Resources Power Wind Energy (Chende Weichang) Co., Ltd.	December 2023
Rural Revitalization Award	China Electricity Council	China Resources New Energy Investment Co., Ltd. Ningxia Branch	December 2023
First Prize for Modern Management Innovation Achievements in the Electric Power Industry of Jiangsu Province Second Prize for Modern Management Innovation Achievements in Enterprises of Jiangsu Province	Jiangsu Province Electric Power Enterprise Association, Approval Committee Office of the Jiangsu Provincial Enterprise Management Modernization Innovation Achievement	Tongshan China Resources Co., Ltd.	December 2023
2023 (9th) State-Owned Enterprises Management Innovation Achievement First Prize	Chinese Institute of Business Administration	China Resources Power (Hezhou) Co., Ltd.	December 2023
2023 Excellent Cases of Corporate Social Responsibility in the Power Industry	China Electricity Council	China Resources Power (Hezhou) Co., Ltd.	December 2023
"Five-star (Gold) Award for Innovation Achievements of Smart Power Generation Technology in 2024" for smart power plant construction based on big data analysis and artificial intelligence at the 2024 National Intelligent Power Generation Technology Conference	Organizing Committee of the National Intelligent Power Generation Technology Conference	Nanjing Chemical Industrial Park Thermal Power Co., Ltd.	December 2023
2023 National Electric Power Industry Coal-Fired Power New Technology Demonstration Project	China Electric Equipment Management Association	China Resources (Xiantao) Co., Ltd.	December 2023
Five-star (Gold) Award for Innovation Achievements of Smart Power Generation Technology in 2024	National Intelligent Power Generation Technology Conference	Nanjing Chemical Industrial Park Thermal Power Co., Ltd.	December 2023

# Key performance table<sup>1</sup>

#### **Development performance**

	Unit	2019	2020	2021	2022	2023
Total assets	HKD	2,157.36	2,596.32	2,879.67	2,833.88	3,223.96
Electricity sales (Subsidiary power plant)	GWh	149,186	154,944	177,300	184,604	193,265
Heat supply	MGJ	102.48	112.00	115.24	124.62	119.50
Installed capacity attributable to power generation operation	MW	40,392	43,365	47,997	52,581	59,764

#### **Economic performance**

	Unit	2019	2020	2021	2022	2023
Turnover	HKD	677.6	695.5	904.1	1,033.1	1,033.3
Operating profit	HKD	128.9	140.9	60.3	135.5	182.0
Net profit attributable to shareholders <sup>2</sup>	HKD	65.9	75.8	21.4	70.4	110.0
Return on invested capital (ROIC)	%	6.9	6.8	1.9	3.6	6.6
Return on equity (ROE)	%	12.7	12.3	3.4	7.1	11.8
Asset-liability ratio	%	59.8	59.2	62.6	64.5	67.6
Interest-bearing liability ratio	%	52.1	50.5	55.6	57.9	61.1
Maintenance and appreciation rate of state-owned assets	%	109.1	112.7	104.0	106.2	112.2
Net operating cash flow	HKD	205.1	207.0	79.7	241.7	288.7
Newly granted patents	Units	225	132	346	326	247

#### **Environmental performance**

	Unit	2019	2020	2021	2022	2023
Proportion of installed capacity attributable to renewable energy operations <sup>3</sup>	%	23.3	25.9	32.2	32.3	37.8
Total investment in environmental protection	RMB	18.28	14.99	14.77	13.52	18.57
Investment in energy-saving and emission- reduction technology transformation	RMB	15.11	12.70	10.96	10.41	14.68
Energy consumption per RMB10,000 industrial added value	Ton of standard coal	8.90	8.57	13.13	11.89	8.50
Water consumption per RMB10,000 industrial added value	t	67.98	56.88	85.19	72.71	51.20
Total GHG emissions <sup>4</sup>	10,000 t	13,402	14,071	15,308	15,261	13,944*
Direct GHG emissions (Scope 1)	10,000 t	/	/	15,303.69	15,256.97	13,939.26
Direct GHG emissions (Scope 2)	t	/	/	43,083	44,986	50,774

1. The data marked with "\*" has been assured by a third party. Please refer to Page 4 to Page 5 for the assurance report issued by the third party. The scope of the assured power plants includes the controllable and subsidiary power plants of CR Power.

2. It refers to the net profit attributable to shareholders of the Company.

3. Renewable energy includes wind power, PV power generation, and hydropower.

4. This indicator refers to the carbon dioxide emissions from the fuel used for power generation and purchased electricity of the controllable and subsidiary power plants of CR Power. According to the provisions of the *Guidelines for Accounting and Reporting of Enterprise Greenhouse Gas Emissions-Power Generation Facilities* (HBQH [2022] No. 485) issued by the Ministry of Ecology and Environment of the People's Republic of China, the total accounted greenhouse gas emissions in the power generation industry mainly include direct greenhouse gas emissions (generated from fossil fuel) and indirect greenhouse gas emissions (generated from purchased electricity). The carbon dioxide from purchased electricity is calculated according to the product of the quantity of purchased electricity and grid emission factor. According to the provisions of the *Notice on the Management of Greenhouse Gas Emission Reporting in Power Generation Industry from 2023 to 2025* issued by the Ministry of Ecology and Environment of the People's Republic of China on February 7, 2023, the grid emission factor is adjusted from 0.5810 tCO2/MWh to 0.5703 tCO2/MWh. Since the Shanghai Gas Project and the Yunfu Project have not been included in the national carbon trading list yet, the greenhouse gase generated by the two projects are not included during the calculation of greenhouse gase emissions, carbon emission included power supply and thermal power supply in 2023.

	Unit	2019	2020	2021	2022	2023
Carbon emission intensity of power supply <sup>5</sup>	g/kWh	728	726	692	680	635*
Carbon emission intensity of thermal power ${\sf supply}^{\sf 6}$	g/kWh	834	834	837	841	839*
Comprehensive energy consumption	10,000 t standard coal	2,725.16	2,723.37	3,009.43	2,995.27	3,126.35
Standard coal consumption for power supply (Subsidiary coal-fired power plants) <sup>7</sup>	g/kWh	296.6	296.0	296.8	297.2	297.2*
Natural gas consumption <sup>8</sup>	1 million m <sup>3</sup>	259.88	285.72	281.27	356.04	425.96*
Diesel consumption <sup>8</sup>	10,000 t	1.12	1.29	1.51	2.41	1.51*
Coal consumption <sup>8</sup>	10,000 t	7,348.90	7,481.37	8,379.59	8,826.06	7,732.24*
Purchased electricity <sup>9</sup>	MWh	79,682.09	104,513.67	78,080.11	81,054.00	77,499.43*
Power consumption rate for power generation plant	%	4.93	4.85	5.01	5.09	5.01
Power consumption rate for comprehensive plant	%	5.88	5.85	5.98	6.01	6.13
Comprehensive water consumption for power generation	10,000 t	20,808.87	18,067.12	19,518.51	18,315.55	18,829.24
Comprehensive water consumption rate for power generation	t/MWh	1.32	1.12	1.11	1.05	1.04
Waste water discharge	10,000 t	477.06	319.50	165.20	168.46	144.60
Waste water discharge rate <sup>10</sup>	g/kWh	30.06	17.53	9.36	9.61	7.94
Chemical oxygen demand	t	118.53	55.02	50.86	47.94	46.61
Nitrogen oxides emissions	10,000 t	1.96	1.97	2.20	2.24	1.97*
Nitrogen oxides emission rate <sup>10</sup>	g/kWh	0.12	0.12	0.13	0.13	0.12*
Sulfur dioxide emissions	10,000 t	1.12	1.06	1.23	1.24	1.08*
Sulfur dioxide emission rate <sup>10</sup>	g/kWh	0.07	0.07	0.07	0.07	0.07*
Smoke emissions	10,000 t	0.14	0.13	0.14	0.15	0.12*
Smoke emission rate <sup>10</sup>	g/kWh	0.01	0.01	0.01	0.01	0.01*
Installation rate of desulfurization device for coal-fired generating units <sup>11</sup>	%	100	100	100	100	100*
Installation rate of denitration device for coal-fired generating units <sup>12</sup>	%	100	100	100	100	100*
Total amount of hazardous waste generated	10,000 t	0.45	0.40	0.59	0.49	0.57
Density of hazardous waste generated	g/MWh	25	22	28	23	24
Total non-hazardous waste generated	10,000 t	1,922.76	1,955.25	2,350.23	2,661.54	2,635.93
Density of non-hazardous waste generated	t/MWh	0.12	0.12	0.11	0.12	0.11
Total amount of comprehensive utilization of ash and slag	10,000 t	1,480.28	1,420.17	1,796.23	2,054.03	2,009.54
Comprehensive utilization rate of ash and slag	%	96.46	88.96	92.81	92.56	91.25

5. Carbon emission intensity of power supply = carbon emission from power supply/total power supply.

6. Carbon emission intensity of thermal power supply = carbon emissions from power supply/thermal power supply.

7. It refers to the standard coal consumption per unit of power generation, which is calculated according to the Calculating Method of Economical and Technical Index for Thermal Power Plant (DL/T 904-2015).

8. It refers to the total amount of energy actually consumed by the Company in production and non-production processes, which is calculated according to the Calculating Method of Economical and Technical Index for Thermal Power Plant (DL/T 904-2015).

9. Purchased electricity refers to the electricity purchased by power enterprises from power grids or other power generation enterprises.

10. Wastewater discharge rate = wastewater discharge/thermal power generation; nitrogen oxide emission rate = total nitrogen oxide emission/thermal power generation; sulfur dioxide emission rate = total sulfur dioxide emission/thermal power generation.

11. Installation rate of desulfurization devices for coal-fired generating units = number of coal-fired thermal power units with desulfurization devices installed/total number of coal-fired thermal power units.

12. Installation rate of denitration devices for coal-fired generating units = number of coal-fired thermal power units equipped with denitration devices/total number of coal-fired thermal power units.

## Social performance

	Unit	2019	2020	2021	2022	2023
Total tax payments	RMB	63.34	61.37	45.7	44.2	51.5
Safety training coverage rate	%	100	100	100	100	100
Major equipment accident	Nr.	0	0	0	0	0
General equipment accident	Nr.	0	0	0	0	0
Loss of life or personal injury accidents of employees <sup>13</sup>	Nr.	2	0	0	0	0*
Unplanned outages	No.	19	19	21	20	24
Equivalent available factor	%	92.28	91.78	92.25	91.94	91.74
Number of Certified Safety Engineer	Person	287	366	403	421	460
Total number of employees	Person	21,746	21,611	21,252	22,340	22,203*
Female employee	Person	3,987	3,710	3,548	3,090	3,121*
Number of ethnic minority employees	Person	901	959	1,008	1,363	1,480*
Social insurance coverage rate	%	100	100	100	100	100
Total investment in employee training	RMB10,000	1,525	439	1,030	1,878	2,435
Coverage rate of employee training	%	100	100	100	100	100
Physical examination coverage rate	%	100	100	100	100	100
Average number of paid leave days	day	8	8	8	8	8
New graduates employed	Person	331	319	235	548	393
Number of newly employed person	Person	855	790	933	1,496	1,078
Total charitable donations	RMB10,000	11,740	17,540	1,543	5,502	4,989
Volunteer activities	Person-time	4,315	2,793	1,260	1,568	3,801

# Key Policy List

ESG indicator	Key policies
	Environmental Protection Management System
A1 emissions	Technical Supervision Standards for Environmental Protection of Coal-fired Units in Thermal Power Generation Plant
	Energy Conservation Management Standard
A2 Use of resources	Technical Supervision Standards for Energy Conservation of Coal-fired Units in Thermal Power Generation Plant
	Technical Guideline for Scrapping and Regeneration of Denitration Catalyst
	Energy Conservation Management Standard
	Management Measures for Carbon Assets
A3 Environment and natural resources	Guidelines for "Three Simultaneities" Management of New Energy Construction Projects
	Environmental Protection Management System
A4 Climata shanga	Research Report on CR Power's Action Plan for Carbon Emissions Peak and Carbon Neutrality
A4 Climate change	Management Measures for Carbon Assets
	Management Measures for Recruitment
	Notice on Strictly Implementing the Avoidance Requirements for Close Relatives of Leaders and Employees
	Safeguard Mechanism for Encouraging Personnel to Exchange with Disadvantaged and Remote Areas
	Regulations on Labor Contract Management
	Guidelines for Attendance Management of Headquarters
	Employee Rank Management Measures
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	Measures for Remuneration Management of Manager-level Members
	Management Measures for Trade Union
	Management Measures for Revenue and Expenditure of Trade Union Funds
	Management Measures for EHS Supervision
	Measures for Occupational Health Management
	Post EHS Responsibility System
	Guidelines for Graded Management and Control of Safety Risks
	Comprehensive Emergency Plan for EHS Emergencies
	Standards for Emergency Management of Overseas Emergencies
B2 Health and safety	Guidelines for EHS in All Stages of Electric Power Construction Projects
	EHS Risk Assessment Standard for Thermal Power Generation Enterprises (Trial)
	EHS Risk Assessment Standard for Wind Power Generation Enterprises (Trial)
	EHS Risk Assessment Standard for PV Power Generation Enterprises
	EHS Risk Assessment Standard for Hydropower Enterprises (Trial)
	Guidelines for the Management of Safety Isolation Station for Hazardous Energy

ESG indicator	Key policies
	Guidelines for Anti-violation Management
	Management Measures for EHS Performance Evaluation
	Management Measures for EHS Reward
	Management Measures for EHS Accidents and Incidents
	Management Measures for Accountability of EHS Accidents and Incidents
B2 Health and safety	Regulations on Work Safety Production
	Management Measures for Work Safety Production Objectives and Responsibilities
	Management Measures for Fire Safety
	Guidelines for Star Rating Management of Independent Safety Teams
	Guidelines for Safety Production Education and Training Management
	Management Guidelines for External Training Assignment of Headquarters
B3 Development and training	Guidelines for Management of Internal Trainers
	Guidelines for Training Fresh Graduates
	Management Measures for Recruitment
B4 Labor standards	Regulations on Labor Contract Management
	Management Measures for Trade Union
	EHS Management Guidelines for Related Parties
	Management Measures for Leaders' Intervention in Bidding and Specific Engineering Project Recording, Notification and Accountability
B5 Supply chain management	Guidelines for Handling Objections and Complaints in Bidding Procurement Projects
	Supplier Management Measures
	Procurement Management System
	Rules for Inspection and Evaluation of Quality Assurance System of Construction Projects
	Management Guidelines for Examination of Technical Specifications for Thermal Power Construction
	Management Guidelines for Review of Thermal Power Construction Drawings
	Standards for Power Quality Technical Supervision of Power Generation Plants
	Knowledge Management Standards
	Information Security Management Standards
	Information System Security Management Specification
	Network Security Incident Management Specification
	Guidelines for Network Security Protection of Industrial Control Systems
B6 Product responsibility	Guidelines for Management of Cybersecurity Incidents
	Guidelines for Event Management of IT Application Systems
	Code for IT Construction of Power Plants
	List of Normalized Operation and Maintenance Work of Network Security
	Measures for Switching between Peacetime and Wartime of Network Security
	Legal Dispute Case Management System
	Guidelines for Risk Management of Electricity Sales Business
	Management Measures for the Reporting of Significant Business Risk Events
	Measures for the Management of Technology Expert Consultation
	Guidelines for Customer Service Management of Electricity Sales Business Customer Service Center

ESG indicator	Key policies
	Internal Audit Management System
	Supervision and Management Standards for State-owned Assets
	Measures for the Management of Integrity and Self-discipline Information of Managers and Personnel in Key Positions
	Regulations on Handling of Employees' Violation of Regulations and Disciplines
	Audit Rectification Management System
	Management Measures for Economic Responsibility Audit
	Violation Accountability Audit System
	Guidelines for Quality Control of Audit Projects
	Guidelines for Off-site Audit
	Confidentiality Requirements and Disciplines for Tendering and Bid Evaluation
	Risk Management Manual
	Management Measures for the Reporting of Significant Business Risk Events
	Internal Control Management System
	Guidelines for Internal Control Evaluation
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	Code of Conduct for Integrity in Professional Practice
	Sunshine Declaration
	Measures for the Management of Financial Heads
	Measures for the Management of Dispatched Financial Heads of Shareholding Enterprises
	Guidelines for the Assessment of Financial Heads of Subsidiary Units (Trial)
	Working Methods of "General Supervision" System
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	Management Measures for Prevention of Conflicts of Interest
	Measures for Compliance Management of Overseas Anti-Commercial Bribery
	Guidelines for Compliance Management of Anti-commercial Bribery in Overseas Businesses
	Guidelines for the Management of Complaints and Reports about Compliance Work
	Compliance Management System
	Management Measures for External Donations
B8 Community investment	CR Power Social Responsibility Program Management Standards
	Guidelines for Wind Power Poverty Alleviation Model

### **Rating Report**

#### Rating Report of Sustainable Development Report 2023 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 2023 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 ( $\star \star \star \star \star$ )

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 ( $\star \star \star \star \star$ )

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, employee health and safety, staff development and training, and sustainable supply chain, with detailed and full description and excellent performance in materiality.

#### Integrity ( $\star \star \star \star \star$ )

The main body of the *Report* discloses 94.77% of the core indicators of the industry from the perspectives of "leading low-carbon development through wind power and PV projects", "shouldering the mission to nourish all things", and "staying committed to the original aspiration for steady operations", with excellent performance in integrity.

#### Balance ( $\star \star \star \star \star$ )

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 ( $\star \star \star \star \star$ )

The *Report* discloses the comparative data of 71 key indicators such as "investment in efficiency and emission upgrade", "total GHG emissions", "comprehensive energy consumption", "number of newly employed person", "total charitable donations", "newly granted patents" and "installed capacity attributable to power generation operation" for three consecutive years, and makes a horizontal comparison on the data such as "No. 850 place in Forbes Global 2,000" and "No. 707 place among 2023 World's Best Companies by TIME Magazine", with excellent performance in comparability.

#### Readability ( $\star \star \star \star \star$ )

Taking "'carbon neutrality and rural revitalization integration'— increasing value in serving national strategies" and "'pioneer of carbon reduction'— offering comprehensive energy services for better urban life" as the responsibility topic, the *Report* highlights the company's practices in promoting rural revitalization and the development of comprehensive energy services, demonstrating the responsibility of a central stateowned enterprise; the *Report* fully displays the company's responsibility performance and results in low-carbon development, social services, and corporate management in three 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 leading role, which can help the related parties to grasp the key information rapidly; the cover design adopts cartoon illustration style and integrates green energy elements and featured 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 ( $\star \star \star \star \star$ )

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 ( $\star \star \star \star \star +$ )

According to the rating team's assessment, *Sustainable Development Report 2023 of China Resources Power Holdings Co., Ltd.* is of five-star plus rating and is the model of corporate social responsibility (CSR) report.



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 fifth 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

王志朝

护京武

Leader of the Rating Team

Expert of the Rating Team

Issuance date: April 22, 2024



Scan QR Code to View Enterprise Rating Files

# Report index 1

Main categories, levels,	Main categories, levels, general disclosure and key performance indicators			
A. Environment				
Aspect A1: Emissions	and land, the generation (a) Policies; and	n of exhaust gases and greenhouse gases, the discharge into water n of hazardous and non-hazardous waste, etc.: pliance with relevant laws and regulations that have a material r.	More efficient ener utilization	дì
	Key performance indicator A1.1	Emission types and relevant emission data	More efficient ener utilization	.gy
	Key performance indicator A1.2	Direct (scope 1) and energy indirect (scope 2) GHG emissions (in tons) and (if applicable) density (if calculated per unit of production and per facility)	Key performance     table	
	Key performance indicator A1.3	Total hazardous waste generated (in tons) and (if applicable) density (if calculated per unit of production and per facility)	Key performance     table	
	Key performance indicator A1.4	Total non-hazardous waste generated (in tons) and (if applicable) density (if calculated per unit of production and per facility)	Key performance     table	
	Key performance indicator A1.5	Describe the emission reduction targets set and the steps taken to achieve such targets	More efficient ener utilization	.gy
	Key performance indicator A1.6	Describe the methods for disposing of hazardous and non- hazardous waste, as well as the waste reduction targets set and the steps taken to achieve such targets	More efficient ener utilization	.gy
Aspect A2: Use of resources	General disclosure Policies for the efficient	use of resources, including energy, water and other raw materials	More efficient ener utilization	.gy
	Key performance indicator A2.1	Total consumption of direct and/or indirect energy (e.g. electricity, gas or oil) by type (calculated in thousands of kWh) and density (if calculated per production unit and per facility)	Key performance     table	
	Key performance indicator A2.2	Total water consumption and density (if calculated per production unit and per facility)	Key performance table	
	Key performance indicator A2.3	Describe the energy efficiency targets set and the steps taken to achieve such targets	More efficient ener utilization	.gy
	Key performance indicator A2.4	Describe any problems that may arise in accessing applicable water sources, as well as the water efficiency targets set and the steps taken to achieve such targets	More efficient ener utilization	.gy
	Key performance indicator A2.5	The total quantity of packaging materials used in the finished product (in tons) and, if applicable, the estimated quantity per production unit	Not applicable	

Main categories, levels,	general disclosure and key	performance indicators	Corresponding section
Aspect A3: Environment and natural resources	General disclosure Policies to reduce the iss	uer's significant impact on the environment and natural resources	Leading Low- carbon Development Through Wind Power and PV Projects
	Key performance indicator A3.1	Describe the significant impacts of the business activities on the environment and natural resources and the actions taken to manage such impacts	Leading Low- carbon Development Through Wind Power and PV Projects
Aspect A4: Climate change	General disclosure Policies to identify and re have an impact on the is	espond to significant climate-related issues that have and may ssuer	More proactive climate action
	Key performance indicator A4.1	Describe significant climate-related issues that have and may have an impact on the issuer and actions to address such issues	More proactive climate action
B. Society			
Employment and labo	r practices		
Aspect B1: Employment	General disclosure		• Cultivating talent based on the people-
	-	n and dismissal, recruitment and promotion, working hours, nity, diversity, anti-discrimination and other treatment and	<ul><li>oriented principle</li><li>Key Policy List</li></ul>
	(a) Policies; and		
	(b) Information on com impact on the issuer	pliance with relevant laws and regulations that have a material r.	
	Key performance indicator B1.1	Total workforce by gender, employment type (e.g. full – or part-time), age group and geographical region	Cultivating talent     based on the people-     oriented principle
	Key performance indicator B1.2	Employee turnover rate by gender, age group and geographical region	Cultivating talent     based on the people-     oriented principle
Aspect B2: Health and safety	General disclosure		• Cultivating talent based on the people-
	Concerning the provisior from occupational hazar	n of a safe working environment and the protection of employees ds:	<ul><li>oriented principle</li><li>Key Policy List</li></ul>
	(a) Policies; and		
	(b) Information on com impact on the issuer	pliance with relevant laws and regulations that have a material r.	
	Key performance indicator B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year	• Cultivating talent based on the people- oriented principle
	Key performance indicator B2.2	Lost days due to work injury	• Cultivating talent based on the people- oriented principle
	Key performance indicator B2.3	Describe occupational health and safety measures adopted, and how they are implemented and monitored	• Cultivating talent based on the people- oriented principle

Main categories, levels,	general disclosure and key	performance indicators	Corresponding section
Aspect B3: Development and training	General disclosure Policies to enhance emp Describe training activit	loyees' knowledge and skills in performing their job duties es	<ul> <li>Making pioneering efforts to lead in innovation</li> <li>Cultivating talent based on the people- oriented principle</li> </ul>
	Key performance indicator B3.1	Percentage of employees trained by gender and employee category (e.g. senior management, middle-level management)	Cultivating talent     based on the people-     oriented principle
	Key performance indicator B3.2	The average training hours completed per employee by gender and employee category	Cultivating talent     based on the people-     oriented principle
Aspect B4: Labor standards	General disclosure Concerning the preventi (a) Policies; and	on of child or forced labor:	<ul> <li>Cultivating talent based on the people- oriented principle</li> <li>Key Policy List</li> </ul>
	(b) Information on com impact on the issue	pliance with relevant laws and regulations that have a material r.	
	Key performance indicator B4.1	Describe measures to review recruitment practices to avoid child and forced labour	Cultivating talent     based on the people-     oriented principle
	Key performance indicator B4.2	Describe steps taken to eliminate such practices in case of any violation	• Cultivating talent based on the people- oriented principle
Operating practices			
Aspect B5: Supply chain management	General disclosure Environmental and socia	l risk policies to manage the supply chain	<ul><li>Working together for a win-win future</li><li>Complete compliance system</li></ul>
	Key performance indicator B5.1	Number of suppliers by geographical region	• Working together for a win-win future
	Key performance indicator B5.2	Describe practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored	• Working together for a win-win future
	Key performance indicator B5.3	Describe practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored	• Working together for a win-win future
	Key performance indicator B5.4	Describe practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored	• Working together for a win-win future

Main categories, levels,	general disclosure and key	performance indicators	Corresponding section
Aspect B6: Product responsibility	Concerning health and safety, advertising, labeling and privacy matters and remedies: (a) Policies; and		<ul> <li>Generating "electricity" to serve communities and residents</li> </ul>
	(b) information on comp impact on the issuer	oliance with relevant laws and regulations that have a material	
	Key performance indicator B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	Not applicable
	Key performance indicator B6.2	Number of products and service related complaints received and how they are dealt with	<ul> <li>Key performance table</li> <li>Generating "electricity" to serve communities and residents</li> </ul>
	Key performance indicator B6.3	Describe practices relating to observing and protecting intellectual property rights	Making pioneering efforts to lead in innovation
	Key performance indicator B6.4	Describe quality assurance process and recall procedures	Not applicable
	Key performance indicator B6.5	Describe consumer data protection and privacy policies, and how they are implemented and monitored	• Generating "electricity" to serve communities and residents
Aspect B7: Anti-corruption	General disclosure		Complete compliance     system
		on of bribery, extortion, fraud and money laundering:	2
	(a) Policies; and	pliance with relevant laws and regulations that have a material	
	impact on the issuer	-	
	Key performance indicator 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	Complete compliance     system
	Key performance indicator B7.2	Describe preventive measures and whistle-blowing procedures, and how they are implemented and monitored	Complete compliance     system
	Key performance indicator B7.3	Describe anti-corruption training provided to directors and employees	Complete compliance     system
Community			
Aspect B8: Community investment		ngagement to understand the needs of the communities where nd to ensure that their business activities take into account	<ul> <li>Generating "electricity" to serve communities and residents</li> </ul>
	Key performance indicator B8.1	Focus areas of contribution (e.g. education, environmental matters, labor needs, health, culture and sport)	• Generating "electricity" to serve communities and residents
	Key performance indicator B8.2	Resources (e.g., money or time) used in the focus areas	<ul> <li>Generating "electricity" to serve communities and residents     </li> </ul>

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