



中国核能电力股份有限公司  
China National Nuclear Power Co., Ltd.



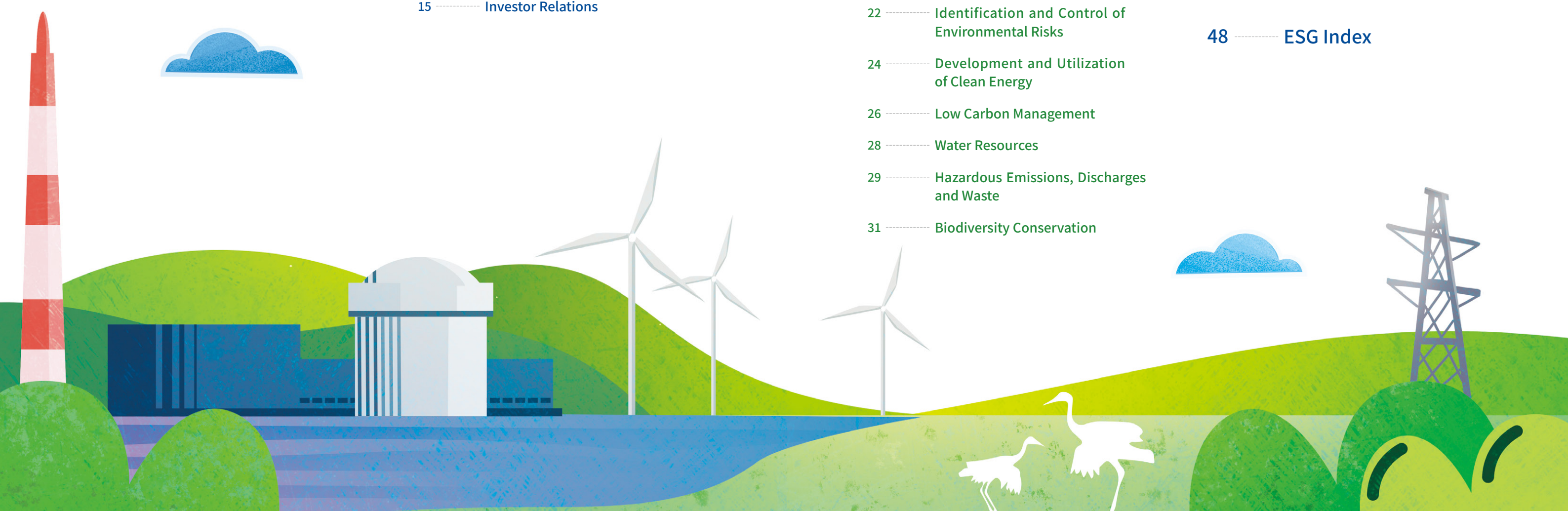
# 2020

China National Nuclear Power Co., Ltd.  
**Environmental, Social and Governance Report**



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# Letter to Shareholders

Dear Shareholders,

The year 2020 was extraordinary and unforgettable. At the critical moment for the Chinese nation to achieve its First Centenary Goal of ushering in a moderately prosperous society in all respects, and at the end of the 13<sup>th</sup> Five-year Plan period, we adhered to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, kept in mind both the international and domestic situations, and aimed to build a new development pattern based on the new development stage and the new development concept. We responded to the outbreak of COVID-19, strengthened strategic leadership to identify overall economic trends, found opportunities and embraced challenges, and generated satisfying results for shareholders and other stakeholders.

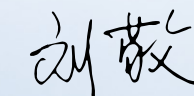
**We have improved corporate governance to ensure a solid management foundation.** With the mission of "developing the nuclear industry to strengthen the country and serve society," we have made every effort to promote large-scale, standardized and internationalized development, build a modern enterprise governance system, strengthen comprehensive risk management, and enhance our ability to resist risks. We have optimized the compensation management system based on corporate strategies, market trends, performance and equality, and actively promoted the building of a clean Party and anti-corruption campaign for a clean work environment. In 2020, CNNP's information disclosure was rated A by the Shanghai Stock Exchange for five consecutive years.

**We protect our green homeland to strive for a harmonious coexistence with the ecology.** We are actively building a modern environmental governance system to strengthen environmental risk identification and control, and effectively enhance environmental safety. With the goal of "peaking CO<sub>2</sub> emissions before 2030 and achieving carbon neutrality before 2060," we will continue to build the industrial pattern of "nuclear energy + non-nuclear clean energy + agile new industry" to integrate the concept of green and low-carbon development into the construction and operation of nuclear power projects. Being a practitioner and promoter of environmental protection, we advocate low-carbon production and ways of life among employees. In 2020, we produced 153.976 TWh of electricity, including 148.336 TWh from nuclear power and 5.640 TWh from other new energy alternatives. As of March 31, 2021, the total installed capacity of nuclear power units of CNNP in operation reached 21.391 GW, and that of new energy units in operation reached 5.71694 GW.

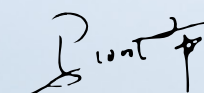
**We put people first and emphasize employee care.** Taking employees as the most valuable assets, we protect their legitimate rights and interests, listen to their voices, and pay attention to their physical and mental health. We firmly support the strategy of "standardizing human resources" and have established more competitive talent guarantee and incentive policies in the nuclear power sector, striving to build a high-quality talent team featuring an appropriate scale, a reasonable structure and full energy. Dedicated to public welfare, we encourage employees to actively participate in volunteer activities and help boost the local economy. In 2020, the total number of employees of CNNP reached 14,506, and the Company invested more than 34 million yuan in poverty alleviation.

The year 2021 marks the first year of the 14<sup>th</sup> Five-year Plan and the 100th anniversary of the founding of Communist Party of China (CPC). CNNP will adhere to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and build a new development pattern based on the new development stage and the new development concept. We will seize every minute to ensure a good start for the 14<sup>th</sup> Five-year Plan, and pay tribute to the 100th anniversary of the founding of the CPC with outstanding performance.

Liu Jing  
Chairman and Party Secretary, CNNP



Ma Mingze  
General Manager and Deputy Party Secretary, CNNP






# About Us

## Company Profile

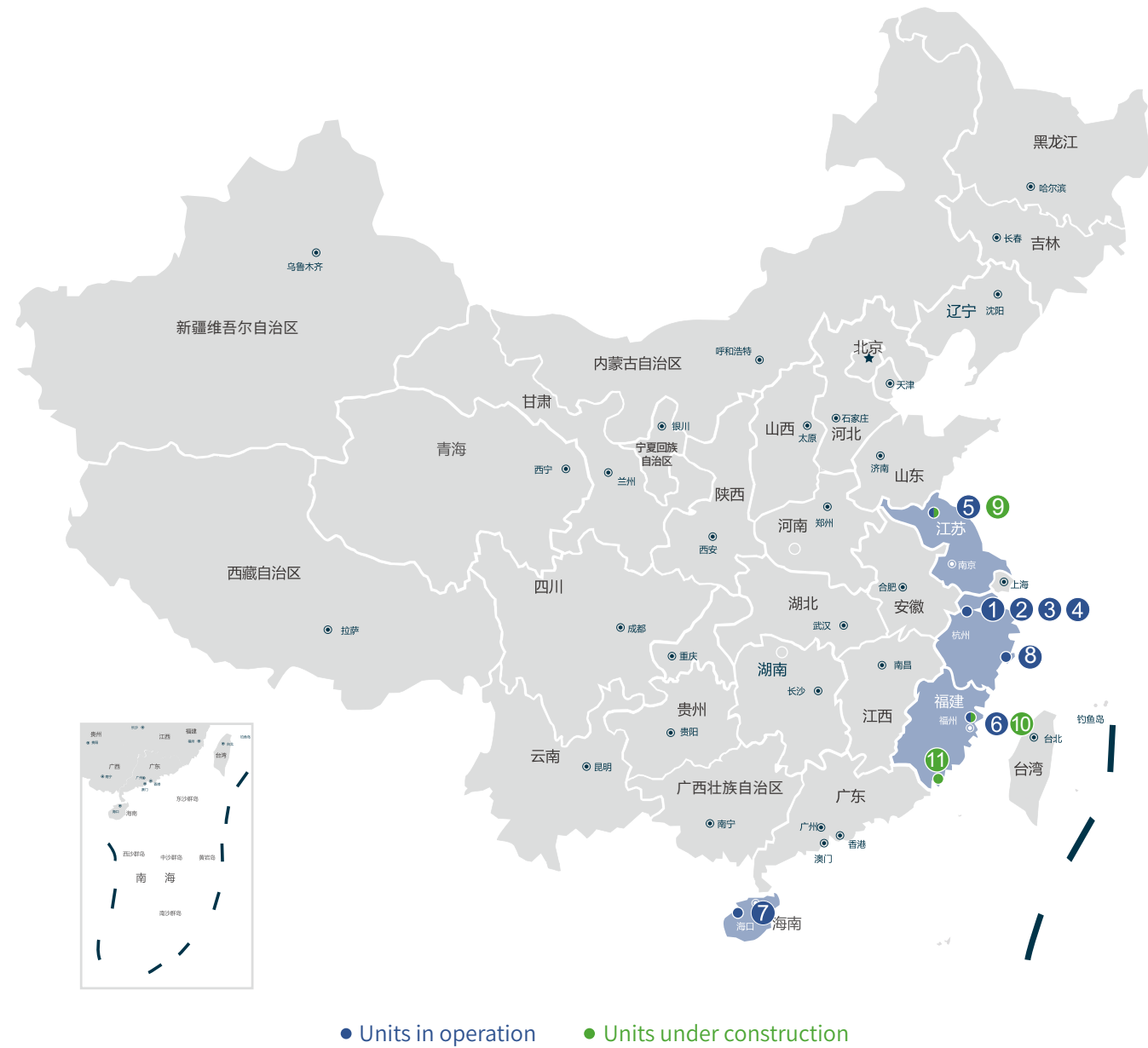
China National Nuclear Power Co., Ltd. (SSE: 601985) is jointly invested by its controlling shareholder China National Nuclear Corporation (CNNC), China Three Gorges Corporation (CTG), China Ocean Shipping (Group) Company (COSCO), and China Aerospace Investment Holdings Ltd. Its main business scope covers development, investment, construction, operation and management of nuclear power projects and supporting facilities. The Company is also engaged in investment and development of clean energy projects, investment and investment management of power transmission and distribution projects, research of safe technologies for nuclear power operation, related technical and consulting services, and electric power sales.

As of March 31, 2021, CNNP has 38 holding subsidiaries and 1 joint venture. Its total assets reached over 389.7 billion yuan and its net assets attributable to shareholders of listed companies exceeded 71.9 billion yuan. The company's total installed capacity of nuclear power units in operation reached 21.391 GW and that of new energy reached 5.71694 GW.

1	Qinshan Nuclear Power Plant No.1	Type of reactor: PWR CNP 300 Rated power: 1X330MWe	First nuclear power plant ever built in the Chinese mainland, hailed as "national glory"
2	Qinshan Nuclear Power Plant No. 2	Type of reactor: PWR CNP 600 Rated power: 2X650MWe 2X660MWe	First large commercial nuclear power plant independently designed, built, operated and managed by a Chinese company
3	Qinshan Nuclear Power Plant No. 3	Type of reactor: HWR CANDU700 Rated power: 2X728MWe	China's only commercial HWR nuclear power plant
4	Fangjiashan Nuclear Power Plant	Type of reactor: PWR CNP1000 Rated power: 2X1089MWe	One of the first group of 1 GW reactors independently designed, manufactured, constructed, and operated by a Chinese company
5	Jiangsu Nuclear Power Plant	Type of reactor: PWR VVER1000 Rated power: 2X1060MWe 2X1126MWe Type of reactor: Improved PWR M310 Rated power: 1X1118MWe	A model project of China -Russia nuclear energy cooperation Final nuclear power project in China that started construction during the 12 <sup>th</sup> Five year (2011-2015)
6	Fuqing Nuclear Power Plant	Type of reactor: PWR CNP1000 Rated power: 4X1089MWe Type of reactor: HPR 1000 Rated power:1X1161MWe	One of the first group of 1 GW reactors independently designed, manufactured, constructed and operated by a Chinese company The world's first Hualong One nuclear reactor (Huanglong One is a third-generation reactor model independently development by a Chinese company), hailed as "national power"
7	Hainan Nuclear Power Plant	Type of reactor: PWR CNP 600 Rated power: 2X650MWe	Southernmost nuclear power plant as well as the first nuclear power plant to be built in the minority-inhabited areas in China
8	Sanmen Nuclear Power Plant	Type of reactor: PWR AP1000 Rated power: 2X1250MWe	The world's first AP1000 which is the third generation nuclear power unit
9	Jiangsu Nuclear Power Plant Unit 6	Type of reactor: Improved PWR M310 Rated power: 1X1118MWe	Final nuclear power project in China that started construction during the 12 <sup>th</sup> Five year (2011-2015)
10	Fuqing Nuclear Power Plant Unit 6	Type of reactor: HPR1000 Rated power: 1X1161MWe	The world's first Hualong One nuclear reactor (Hualong One is a third-generation reactor model independently developed by a Chinese company)
11	Zhangzhou Nuclear Power Plant Unit 1 and Units 2	Type of reactor: HPR1000 Rated power: 2X1212MWe	The bulk production of the "national business card" Hualong One reactor goes well and strives to create a "Clean Energy Park"

Statistics up to March 31, 2021

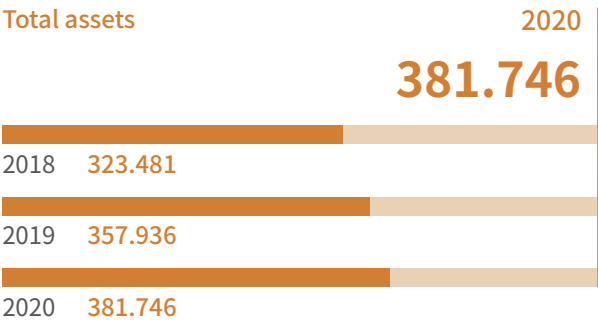
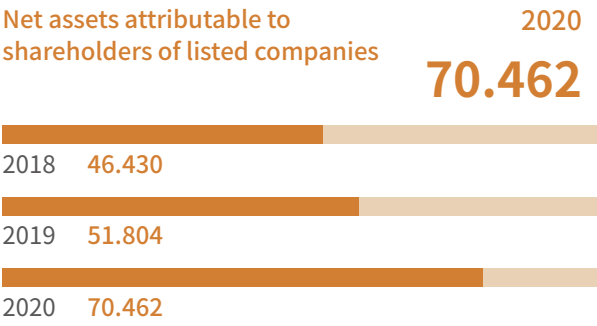
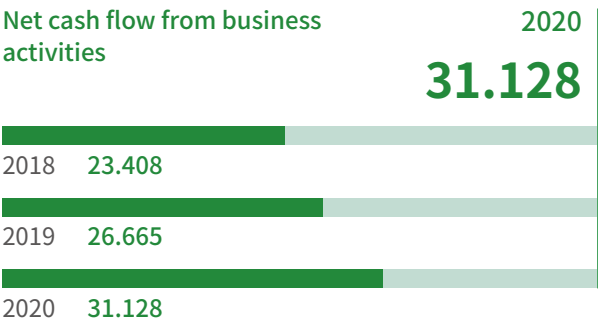
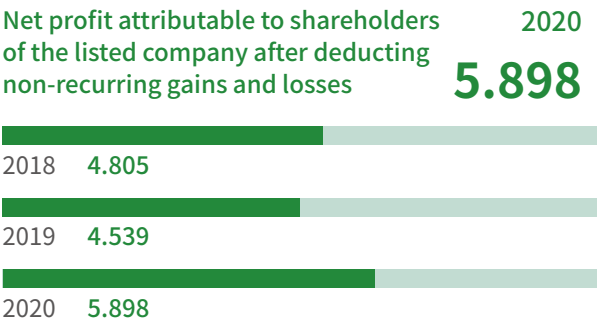
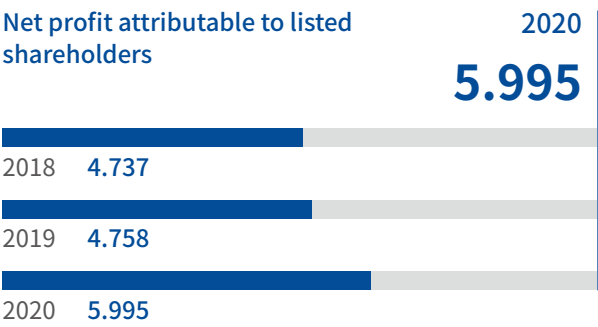
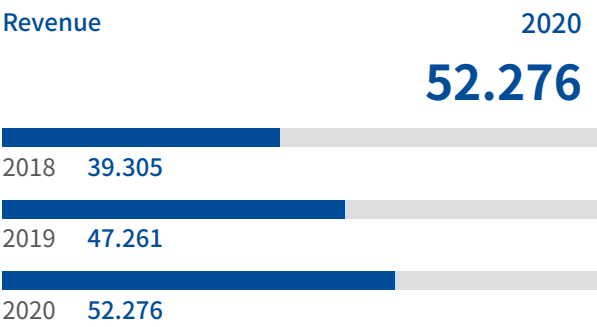
● Units in operation ● Units under construction



Distribution of controlling units



Key Financial Indicators (Unit: billion yuan)



Strategy and Governance

Development Strategy

Upholding the mission of developing the nuclear industry, strengthening the country and bringing welfare to humanity, CNNP promotes large-scale, standardized and internationalized development, and aims to become a world-class competitive clean energy provider.

Strategic Positioning

With the focus on investment, construction and operation of nuclear power projects, CNNP strives to promote the efficient utilization of cutting-edge nuclear technologies and the production of clean and low-carbon energy. It bears the tasks to build a country with strong nuclear power and provide high quality energy supply.

Strategic Positioning

To become a world-class competitive clean energy provider.

Goals in the 14 <sup>th</sup> Five-Year Plan	Long-range goals for 2035
<ul style="list-style-type: none"><li>• Ensure nuclear safety</li><li>• The installed capacity is to reach 56 GW by 2025</li><li>• The nuclear energy can be utilized for multiple purposes and the output value of nuclear power technology services will be doubled; the value of the non-nuclear clean energy industry will reach 10 billion yuan, and new breakthroughs will be made in the agile clean technology industry</li><li>• Become a global leader in nuclear power operation performance</li></ul>	<ul style="list-style-type: none"><li>• Achieve the goal of becoming a world-class clean energy service provider</li><li>• The installed capacity of electric power will exceed 100 GW, becoming one of the top 500 companies in the world</li><li>• The operation indicators of nuclear power will remain top-class in the world, and the operation performance of non-nuclear clean energy will also lead the industry</li><li>• Nuclear energy will be commercialized and industrialized in fields like power, heating, seawater desalination, and hydrogen production etc</li><li>• The nuclear power industry standards made by CNNP will be widely adopted and it will be able to provide a package of solutions to the world</li><li>• The new agile industry will be effectively expanded, with its business income accounting for more than 10%</li></ul>

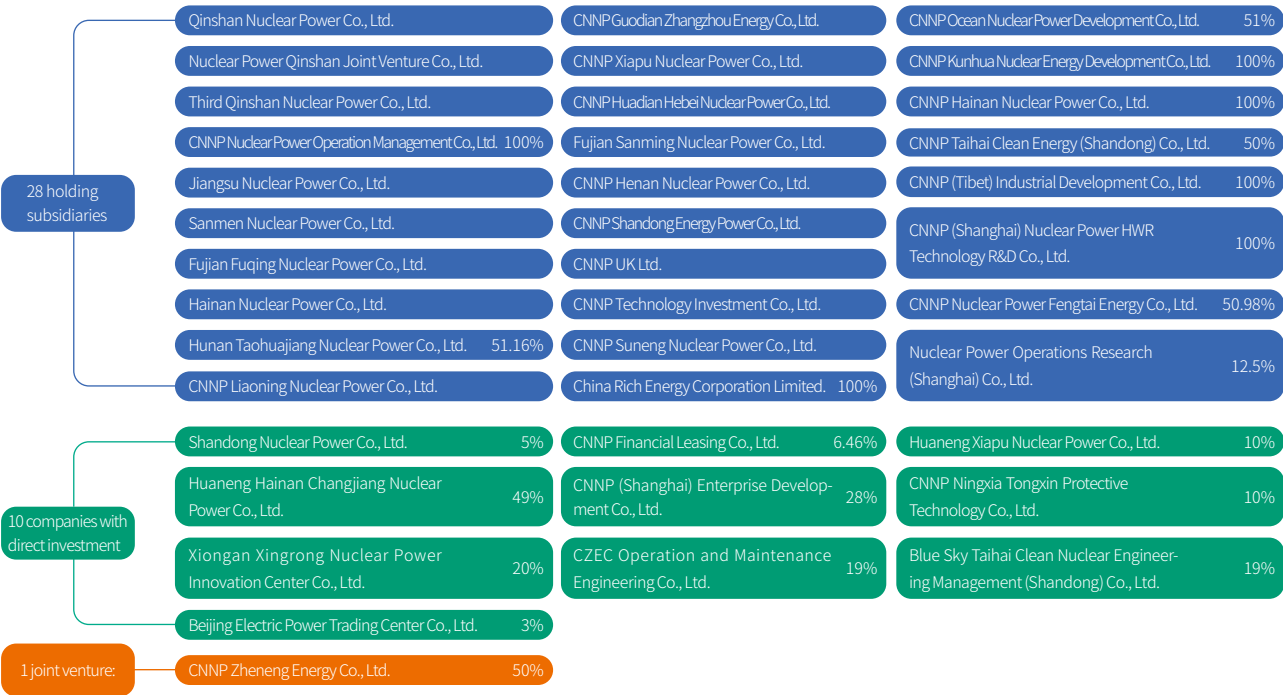
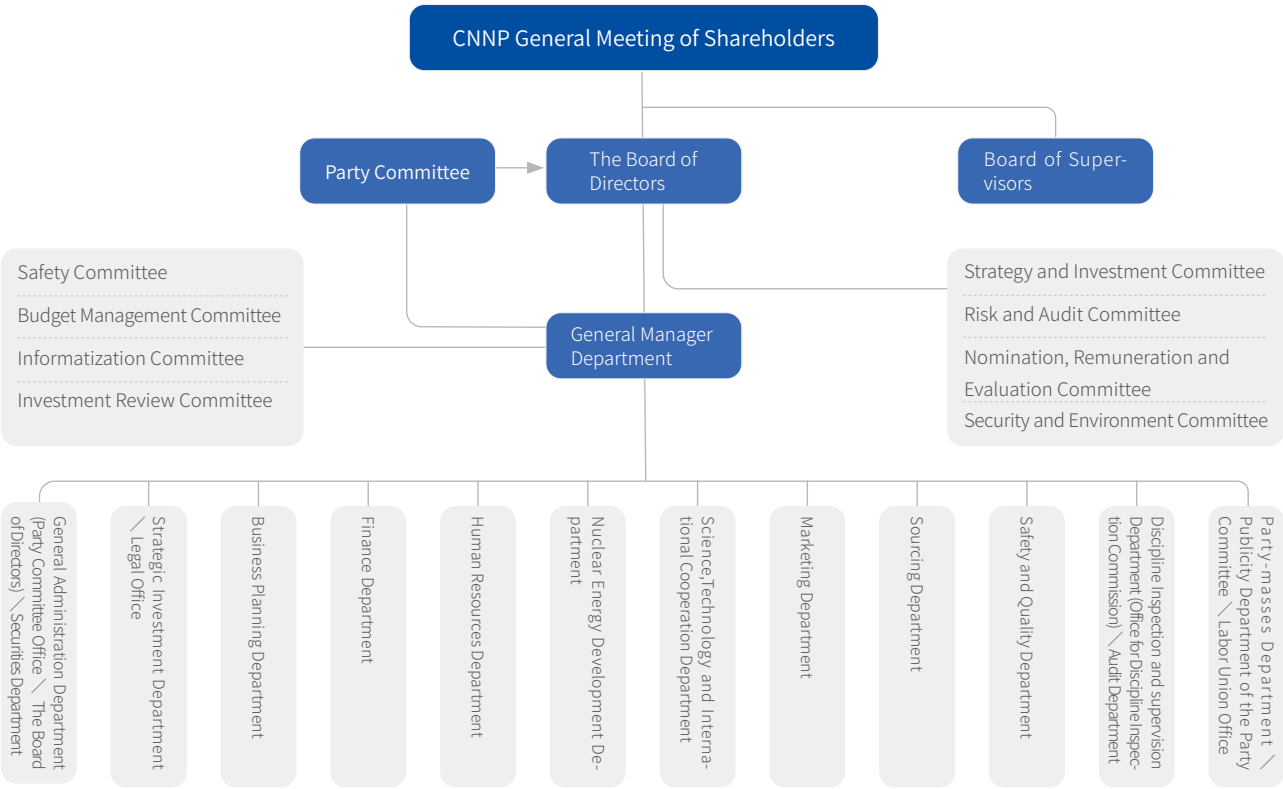
Strategic Guidelines

Large scale	Standardized	Internationalized
Coordinate efforts on business development, asset management, marketing, talent development, and value creation, and enhance the capability of energy security to build a bigger, better, stronger company	Advance standardization of technical and managerial positions and processes in all business and functional areas, and build an efficient, flexible, and standardized management system to increase profitability	Expand global presence, foster global business operations, improve international management capability and have a greater say to build a globally recognized, influential nuclear energy brand



Governance Structure

In strict compliance with relevant provisions in the *Company Law of the People’s Republic of China*, *Securities Law of the People’s Republic of China* and *Articles of Association*, CNNP has established a governance structure composed of the General Meeting of Shareholders, the Board of Directors and its specialized committees, the Board of Supervisors and senior management. Such a governance structure has supported the work of the General Meeting of Shareholders, the Board of Directors, and the Board of Supervisors, steadily increased the value of the Company, and facilitated sustainable development.



The Board of Directors

Directorates Structure

As of December 31, 2020, the Board of Directors had 15 directors, including five independent directors (accounting for 1/3 of the total), two female directors (accounting for 13.33% of the total) and one employee representative director.

In 2020, Chen Hua, former Chairman of CNNP retired, and Zhang Tao, former General Manager of CNNP was assigned to a new position. In accordance with relevant governance procedures, the Company appointed new directors, elected Liu Jing as the Chairman, and appointed Ma Mingze as the General Manager. The handover of the Company's management team was completed smoothly. Through meetings of the Board of Directors and the Board of Supervisors as well as the General Meeting of Shareholders in 2020, CNNP elected and substituted five directors and two supervisors, and adjusted members of the specialized committees under the Board of Directors.

Specialized committees

There are four specialized committees under the Board of Directors, namely the Strategy and Investment Committee, the Risk and Audit Committee, the Nomination, Compensation and Evaluation Committee, and the Security and Environment Committee. They help steadily improve the Company's governance capabilities, thus ensuring sound operation. In accordance with the Company's articles of association and implementation rules for specialized committees, each committee gives full play to its strengths within its own powers and puts forward professional suggestions on development strategies, major investments, financial audits, compensation and performance appraisal for executives, etc., providing strong support for scientific decision-making of the Board of Directors

In 2020, the specialized committees under the Board of Directors convened a total of 16 meetings where they fully employ their expertise, including four meetings of the Strategy and Investment Committee, six meetings of the Risk and Audit Committee, five meetings of the Nomination, Compensation and Evaluation Committee, and one meeting of the Safety and Environment Committee.

Responsibilities and obligations of independent directors

The five independent directors fully perform their duties by employing their professionalism in strict compliance with relevant laws and regulations. They firmly remain independent and earnestly implement their duties and obligations. In addition, by actively participating in corporate governance and the decision-making process of major issues, and offering suggestions on regular reports, profit distribution, director replacement, non-public issuance, connected transactions, etc. of the Company, the independent directors effectively protect the legitimate rights and interests of the Company and small and medium shareholders.

The Board of Supervisors

The Board of Supervisors implements supervision according to relevant laws and regulations to safeguard the legitimate rights and interests of the Company, shareholders and creditors and ensure the healthy development of the Company. In 2020, there were six supervisors in the Board of Supervisors of CNNP, including two female supervisors and two employee supervisors, each accounting for 33.33% of the total.

The General Meeting of Shareholders

In 2020, the Company held four General Meetings of Shareholders, including one annual general meeting and three extraordinary general meetings, all of which were convened by the Board of Directors according to relevant laws and regulations and regulatory systems. Combining on-site and online voting, the General Meeting of Shareholders deliberated and voted through all proposals.



## Governance Mechanism

CNNP continues to promote the establishment and improvement of corporate systems and mechanisms, and strives to build a modern corporate governance system to enhance corporate governance capabilities and support the Company's healthy development. In 2020, the Company won the Golden Quality – Corporate Governance Award, an award for listed companies, and the Gold Round Table – Best Board Award.

### The Decision-making System Composed of "the Articles of Association, Three Regulations and Four Rules"

Based on the world's advanced corporate governance model, the Company keeps optimizing the modern SOE governance system and the internal control system. It improves the corporate governance system composed of "the Articles of Association, three regulations and four rules" and the "3 + 1 + N" list model for the decision-making process of the Party committee. The Company promotes its head-quarter and members to improve the *Management for the Authorization of the Board of Directors* and *"Three Majors and One Large" Decision-making Management System* (Major decisions, personnel appointment and removal, and project arrangement and large amount of funds), thus integrating Party building into corporate governance. We release the *List of Standardization of the Organization of the Board of Directors* to facilitate the standardization of the board of directors. We also establish and improve the modern SOE system with Chinese characteristics to constantly enhance the endogenous force for the Company's reform and development.

### Macro-supervision System

With the goal of "integrating the Party's leadership and discipline inspection and supervision into corporate governance", the Company promotes and practices the macro-supervision system, forming a collaborative working mechanism of "Party leadership, discipline inspection and supervision as well as business". We further promote the development of the macro-supervision system by improving four macro-supervision regulations, establishing a two-level macro-supervision talent pool with 394 backbone forces, and carrying out regular coordination meetings, information release and problem feedback mechanism for macro-supervision. We will launch in-depth supervision in key areas such as epidemic prevention and control, scientific and technological innovation, inspection and rectification, and inventory management etc., so as to ensure the Company's operation is in line with laws and regulations.

## Compliance Operation

The Company ensures that its management and operation are in accordance with the law by setting up a compliance management system with complete structure, specific rights and responsibilities, and clear levels. It promotes the deep integration of compliance management and business while cultivating compliance culture to ensure its operation is in line with the law. In 2020, the Company has organized 25 internal audits in five areas.

### Optimizing compliance management system

- We invited compliance specialists in the standardization field to establish the CNNP compliance library in key areas and optimized relevant systems to ensure compliance operation.
- Based on our businesses, we sorted out and analyzed the compliance requirements related to the intellectual property rights of nuclear power import and nuclear power operation enterprises, deconstructed the internal and external supervision and legal points, and issued two special compliance guidelines to provide support for business compliance.

### Integrating the system deep into businesses

- We systematically sorted out legal and compliance risks in key areas such as intellectual property rights, engineering construction, production and operations, safety and environmental protection, etc., making a list of over 100 legal risk identification standards.
- Based on the list, we took legal measures, upgraded relevant systems, and optimized related processes and forms, which internalized the external compliance requirements into the company's management system and the actual business process.

### Cultivating compliance culture

- We carried out compliance trainings for new employees and held legal compliance business training courses to enhance employees' compliance awareness
- We formulated the compliance commitment and organized all staff to sign through the APP on mobile phone so as to establish a both horizontal and vertical compliance responsibility network.
- We set up a compliance management zone on the office platform to regularly release compliance guidelines from superior departments, CNNP compliance case base, and relevant special work results.

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## Comprehensive Risk Management

The Company attaches great importance to strengthening comprehensive risk management by continuously building up its risk management capabilities, improving the risk management system, fostering a comprehensive risk management culture, and integrating risk management into all business processes.

### Building a comprehensive risk management organization system

CNNP has established a comprehensive risk management organization system composed of the decision-making and executive levels. The decision-making level, made up by the Board of Directors and the Risk and Audit Committee, communicates with and supervises and reviews the practices of external audits, regulates internal auditors, makes decisions on matters related to the effectiveness of the Company's comprehensive risk management work and major risks, builds and evaluates the Company's internal control system, and analyzes risks and gives risk warnings on the Company's major projects and investments. The executive level, supported by a risk prevention system composed of business divisions, the risk management department, and the discipline inspection, supervision and audit department, helps CNNP avoid risks and ensure stable operation of the Company.



Improving the comprehensive risk management system

To continue to improve the implementation of the risk management mechanism, CNNP has established a series of risk management mechanisms, including the *Comprehensive Risk Management Reporting Mechanism*, the *Major Risks/TOP10 Risk Tracking Mechanism*, and the *Risk Supervision and Evaluation Mechanism* to ensure efficient risk management work.

Establishing an integrated management system

By promoting integrated management of responsibilities of different departments, systems, assessments and supervision, CNNP removes business boundaries, promotes the integration of risks, internal control and institutional systems, and builds a multi-system integrated management structure centering on institutional processes, thus eliminating system barriers and enhancing the management effectiveness and efficiency.

Developing a quantitative risk assessment model

We have explored and developed a quantitative risk assessment model to track and offer early warnings on major risks and changes and analyze the possible impacts of major risks. The model helps fully release the potential of the Company's internal data and experts to promote lean risk management.

Compensation

CNNP guarantees a fair and rational compensation system. While safeguarding employees' interests of employees, we are fully motivated to realize the common development of the Company and employees.

Compensation Management System


Based on corporate strategies, market trends, performance and equality, CNNP has formulated the *China National Nuclear Power Co., Ltd. Compensation Management System*, the *China National Nuclear Power Co., Ltd. Gross Payroll Management System* and other systems to ensure legal and compliant compensation management. We have started the construction of an integrated compensation management system and established a performance-based compensation mechanism to ensure market-based compensation adjustments and competitive pay.

Executive Equity Policy and Compensation



The Management Body

The Nomination, Compensation and Evaluation Committee, one of the four special ized committees under the Board of Directors, is mainly responsible for selecting directors and senior executives for the Company and offering opinions and suggestions on the evaluation and compensation of directors and senior executives.



Standardized Decision-making Procedure

CNNP clarifies the standardized decision-making procedure in the *Implementation Rules for the Nomination, Compensation and Evaluation Committee under the Board of Directors of China National Nuclear Power Co., Ltd.*, which stipulates that independent directors of CNNP receive allowances as decided by the General Meeting of Sharehold-ers, the scores of senior executives in the annual performance appraisal shall be consid-ered in the compensation scheme, and the annual performance appraisal and compen-sation scheme can be implemented once approved by the General Office, the Board of Directors, and the General Meeting of Shareholders.



Sustainability-related Compensation Management

CNNP sets obligatory indicators targeting safety, environmental protection, etc., and bases executive pay on the performance appraisal results. CNNP will cut the annual pay or punish executives based on the level of safety or environmental accidents to ensure sustainable development of the Company.

Ethics Policies and Practices

While constantly improving the anti-corruption and integrity promotion system, CNNP works to improve Party conduct and build a clean government, strictly supervises and reviews anti-corruption work, conducts ethics training, and promotes the integration of Par-ty conduct improvement and clean government building into daily work, striving to create a clean and upright atmosphere.

The Management Body

The Risk and Audit committee under the Board of Directors communicates with and supervises and reviews the practices of external audits, and regulates internal auditors. To enhance business supervision, the Discipline Inspection Commission (Office for Discipline Inspection and Supervision) is set up to ensure efficient discipline inspection and supervision work.



Policies and Actions

Fulfillment of responsibilities

Tightening supervision

Adopting targeted measures

CNNP released the *List of Responsibilities of Party Committees in Full and Strict Governance over the Party* and *List of Responsibilities of Party Committee Members in Party Building, Improving Party Conduct and Ensuring Clean Government* to clarify responsibilities of members Party committees at all levels.

We integrate Party leadership, discipline inspection and supervision into corporate governance. By combining discipline inspection with audits, we have supervised and inspected over 40 key items across the Company through the collaboration of departments, continuously enhancing our political awareness and sense of responsibility.

Regarding the management and control of risks in the procurement process, CNNP conducts special inspections on procurement-related corruption and misconduct. We have carried out special inspections on procurement risks in three stages and formed a list of the three important issues in the nuclear power sector. With such efforts, we aim to further plug loopholes in our business and control risks, and enhance the integrity and compliance awareness of the procurement staff.

Whistleblower Protection

We have issued Discipline Inspection and Supervision - Complaint ManagementGuide , and created anonymous reporting channels. Employees and third parties are encouraged to report violations to the Company via hotlines, emails, letters or appointed office, and the information will be kept secret as required.

Ethics Training

In 2020, CNNP organized a series of activities during the anti-corruption and integrity education month campaign under the theme of "keeping our responsibilities in mind and strengthening political awareness." The Secretary of the Discipline Inspection Commission of CNNP gave a lecture on promoting Party integrity, which encouraged employees to be fully aware of their mission and build up the competitiveness of the Company through clean and safe business operation. Copies of the *Proposal for Building a Resource-saving Enterprise*, which publicized the channel for reporting food waste, were distributed among employees. Besides, seven characteristics activities, including an online visit to the warning education base, online delivery of anti-corruption letters to employees and their families, and the Integrity Promotion Reading Salon, were organized to contribute to a clean company and integrate integrity and self-discipline into the mindset of every Party member.

Investor Relations

CNNP attaches great importance to safeguarding the legitimate rights and interests of shareholders, and pays close attention to the opinions and feedback of shareholders and investors. The Company effectively protects the interests of investors with excellent performance, standardized information disclosure and diversified communication channels, making outstanding contributions to keep and increase asset value, and promote the sound development of the capital market. In 2020, CNNP's information disclosure has been rated A by the Shanghai Stock Exchange for five consecutive years.

Transparent operation

Communication Through Multiple Channels

Based on relevant regulations of information disclosure, we disclosed 90 authentic, accurate, complete, and timely announcements, both periodic and temporary, throughout the year. The Company's information disclosure has been highly praised by the regulatory authority, and it is a model enterprise of information disclosure recognized by the Shanghai Stock Exchange.

The Company has organized roadshows, group reception activities, field inspections, Q&As on the "Hudongyi" online communication system of Shenzhen Stock Exchange, and many other channels to communicate with the public and investors. Meanwhile, we apply public media to convey corporate information to the market, interpret the value of the Company, and gradually deepen the capital market's positive perception of CNNP. In 2020, the Company posted over 20 articles on people.cn and other central government-level or statutory media outlets to interpret the annual report of CNNP. We also planned a number of activities to publicize the Company's important business matters related to power generation, refinancing, etc., winning the market's understanding of and support for CNNP.





# ESG Management

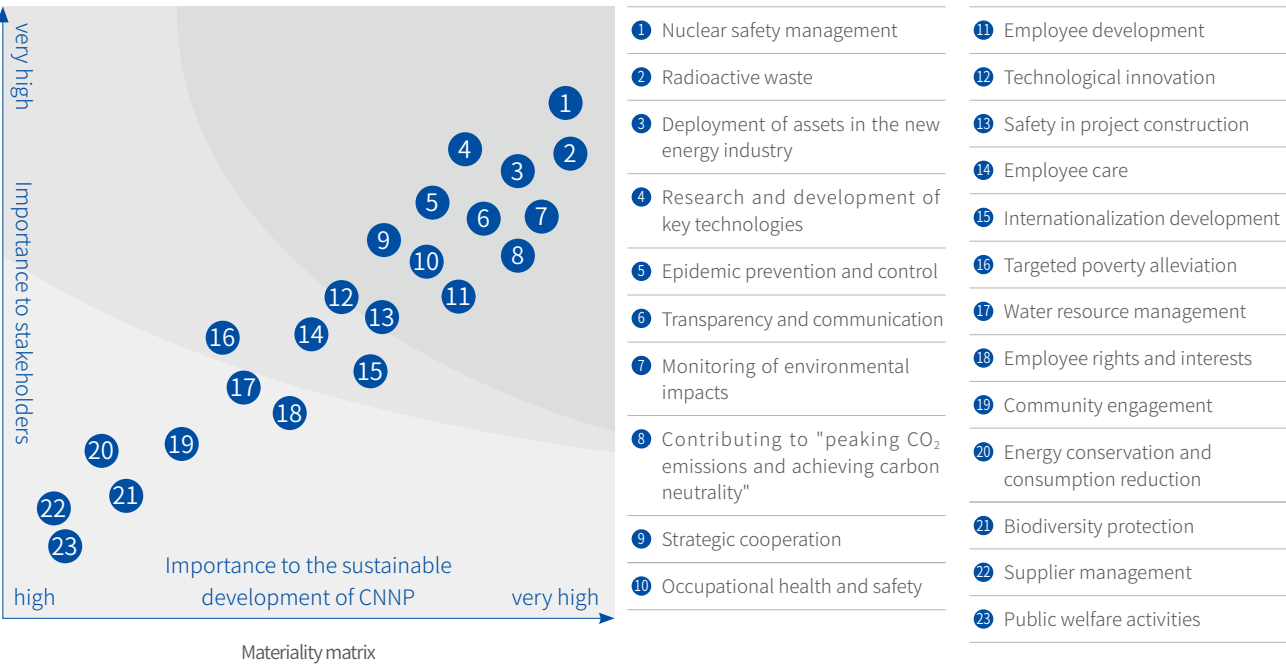
## ESG Management System

CNNP attaches great importance to effective management of the environment, society and governance and has established an ESG management system led by the Board of Directors to work on ESG management improvement. The Board of Directors performs its functions related to business operation and development, employee interests and rights, work safety, and environmental protection through four committees: the Strategy and Investment Committee, the Risk and Audit Committee, the Nomination, Remuneration and Evaluation Committee, and the Safety and Environment Committee. The Board of Directors and its committees are required to faithfully perform their duties and support the sustainable development of the Company.

## Material Topics Management

Based on the macro environment of sustainable development and its own development plan, CNNP, in accordance with the principles of materiality, completeness and stakeholder engagement, comprehensively analyzed and identified the 2020 sustainability material topics from the dimensions of "importance to CNNP's sustainable development" and "importance to stakeholders" while considering the expectations of stakeholders.

### Continuous improvement Material topics analysis process



## Transparent Communication Management

Adhering to the "3C" communication concepts of Confidence, Connection and Coordination, CNNP attaches great importance to transparent management and strengthening the disclosure of non-financial information, to get more people to know, understand and support nuclear power. We have regularly released social responsibility reports since 2012 and ESG Reports since 2019 to promote the implementation and improvement of ESG matters. The Company discloses ESG information through its official website as well as the websites of the Shanghai Stock Exchange, the National Nuclear Safety Administration, the China Nuclear Energy Association, and the World Association of Nuclear Operators (WANO), and establishes an open and transparent mechanism for environmental, social and governance information disclosure.

### Case CNNP holds "Appealing Nuclear Power" science popularization activity for 8 consecutive years

In response to the development of nuclear power and public needs, CNNP has given full play to the advantages of nuclear power enterprises' science popularization resources and held "Appealing Nuclear Power" science popularization activity for 8 consecutive years to popularize nuclear power science and display the charm of nuclear power to the public. More than 2.4 million middle school students have participated in the activities in total.

In 2020, to overcome the impact of COVID-19, CNNP holds "Appealing Nuclear Power" science popularization activity in an innovative way. We invite 4 celebrities from different fields, including Luo Qi, an academican of Chinese Academy of Engineering, and Hu Xia, a singer, to provide four lively and interesting nuclear science classes for netzines across the country via live webcast and short videos, which effectively breaks the circle barrier of nuclear science popularization and attracts people of different age and fields, thus making extensive social influence and delivering positive effects.



CNNP plans and holds a number of live webcast activities to popularize nuclear power science.



Opportunities and Challenges

The Company has continuously promoted ESG risk identification and management, and ensured steady operation with greater efficiency, higher reliability and comprehensive cooperation.

Domestic and international environment and industry trends	 The Chinese economy is expected to continue to improve in the long run and the electricity demand still has room to grow	 We have entered a new stage of regular pandemic prevention and control	 Electricity reforms are steadily advanced	 There are great opportunities for the development of clean energy	 Maximizing benefits under the premise of safety is becoming increasingly important	 Challenges remain in persuading the public to accept nuclear projects
Opportunities and challenges	<ul style="list-style-type: none"><li>The Chinese economy, facing strategic opportunities, is expected to continue to improve in the long run and. As the energy revolution deepens, clean and low-carbon energy has a broad space for development while the nuclear power sector faces both opportunities and challenges</li><li>The nuclear power sector has embarked on a new period when "demand drives supply, supply creates demand." As the domestic cycle attracts more global resource factors, higher requirements will be put forth for further coordination of international and domestic markets</li></ul>	<ul style="list-style-type: none"><li>China's fight against the COVID-19 pandemic that broke out at the beginning of the year has achieved a phased victory with the concerted efforts of the whole country. We have entered a new stage of regular pandemic prevention and control</li><li>Higher requirements have been put forward for the Company to ensure the safe, stable and reliable operation of nuclear power units during the new stage of regular pandemic prevention and control</li></ul>	<ul style="list-style-type: none"><li>More market players are emerging as the electricity reforms are steadily advanced, which rapidly expands the power market and creates a more severe electricity consumption environment for power generation companies</li><li>Electricity reforms will promote a market-based power industry, which allows high-quality and efficient energy companies to provide power distribution and supply services. The industrial chain of "power generation – transmission – distribution. electricity sales – service" with electricity as the focus will further extend and create new opportunities for the transformation and upgrade of the power sector</li></ul>	<ul style="list-style-type: none"><li>President Xi Jinping made a commitment to the international community for peaking CO<sub>2</sub> emissions before 2030 and achieving carbon neutrality before 2060, pointing out the direction for high-quality development of the clean energy industry</li><li>With technological advancements, the cost of electricity generation from solar and wind power has declined sharply, gradually building up the market competitiveness and enabling the development of large-scale affordable clean energy projects</li></ul>	<ul style="list-style-type: none"><li>Under the premise of ensuring safety, affordability is key to guaranteeing the competitiveness of nuclear power companies and a major requirement for ensuring contributions of the nuclear power sector to the future development of the energy industry</li><li>Tightened cost control and control over investments in nuclear power units under construction, and M&amp;As in the new energy sector will not show significant effects immediately</li></ul>	<ul style="list-style-type: none"><li>After the Fukushima nuclear accident in Japan, public attention to the nuclear industry has increased significantly. External factors have delayed the development of China's nuclear power industry, but the public's confidence in the development of nuclear power is restoring, and the development of nuclear power is reviving</li><li>Since the middle and later period of the 13<sup>th</sup> Five-Year Plan, the public has shown a high degree of acceptance of nuclear power and nuclear heating projects, which lays a good foundation for the sustainable development of nuclear energy</li></ul>
Actions of CNNP	<ul style="list-style-type: none"><li>CNNP integrates the "customer-centered" principle into the whole process of production and operation. We allocate resources based on market demands and reform our systems and mechanisms in line with market principles</li><li>In addition to strengthening the competitive industries, we work to create new development momentum, promote the application of advanced technologies into our products, realize product industrialization, enrich product forms, and extend the value chain</li></ul>	<ul style="list-style-type: none"><li>A leading group and a special work group for pandemic prevention and control have been formed, and pandemic containment and work safety have been prioritized</li><li>CNNP has released the <i>COVID-19 Pandemic Prevention and Control Work Plan</i> and a series of contingency plans to guarantee pandemic containment and the resumption of work and production at the same time</li></ul>	<ul style="list-style-type: none"><li>CNNP conducts in-depth analysis and research on relevant policies and power trading rules of different provinces, and pays close attention to the local reforms and mechanisms, striving for high-quality and ample supply of nuclear power</li><li>CNNP makes great efforts to build a technology service brand, insists on expanding and strengthening China's nuclear power technology service industry, promotes the development of new agile industries, and explores new areas with great potential for growth</li></ul>	<ul style="list-style-type: none"><li>The "nuclear energy + non-nuclear clean energy + agile new industry" industrial pattern is being built to highlight the development of nuclear projects while promoting the development of non-nuclear clean energy</li><li>CNNP promotes the development of new energy based on the principles of "large scale, high efficiency, application of cutting-edge technologies, a reasonable industrial structure, and excellent asset quality."</li></ul>	<ul style="list-style-type: none"><li>On the premise of safe operation and with changing business risks, CNNP conducts effective management and control from the perspectives of strategy, planning, execution, analysis, assessment, and so on</li><li>CNNP further improves the overall collaboration mechanism and creates diversified profit-increasing models to enhance its resistance against external risks and boost business resilience</li></ul>	<ul style="list-style-type: none"><li>CNNP has compiled the <i>Stakeholder Communication Management Manual</i> to enhance the public's understanding of and support for nuclear power</li><li>CNNP promotes communication with the public over nuclear power projects in an orderly manner to enhance their recognition and acceptance of nuclear projects</li></ul>





A stylized illustration of a family (two adults and two children) walking on a green path in a park. In the background, there is a city skyline with various buildings, including a prominent red and white striped tower. The sky is white with a few blue birds flying. The overall style is modern and colorful, with a focus on environmental themes.

# Environment

## Investor Q&A

 **Q:**

What does CNNP plan to do to contribute to China's commitment to "peaking CO<sub>2</sub> emissions before 2030 and achieve carbon neutrality before 2060?"

 **A:**

Oriented by the goals of "peaking CO<sub>2</sub> emissions before 2030 and achieving carbon neutrality before 2060," CNNP has accelerated the construction of a "clean, low-carbon, safe and efficient" modern energy system, strengthened the standardized, targeted, and intensive management of nuclear power, and improved the management of non-nuclear clean energy. We promote the development of the new energy sector in line with the principles of "large scale, high efficiency, application of cutting-edge technologies, a reasonable industrial structure, and excellent asset quality." During the 13<sup>th</sup> Five-year Plan period, CNNP generated over 500 TWh of electricity through nuclear power, equivalent to saving 150 million TCEs, reducing CO<sub>2</sub> emissions, SO<sub>2</sub> emissions, and NO<sub>x</sub> emissions by 410 million tons, 1.34 million tons, and 1.16 million tons respectively, and planting 1.44 million hectares of forests.



# Identification and Control of Environmental Risks

In strict compliance with the *Environmental Protection Law of the People's Republic of China*, the *Act of the People's Republic of China on the Prevention and Control of Radioactive Pollution*, *Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste*, and other national laws and regulations on environmental protection, CNNP acts in strict accordance with the ecological red line, the bottom line of environmental quality, and the upper limit of natural resources utilization. CNNP strives to build a modern environmental management system, strengthen environmental risk management and control, implement environmental management strategies, strengthen environmental impact monitoring, motivate its member companies to enhance environmental governance, and improve ecological and environmental safety.

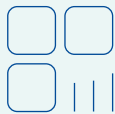
## Identification of Environmental Risks

The Company has established a sound environmental risk prevention system to effectively prevent and defuse environmental risks. We identify, investigate, and handle environmental risks regularly and get fully prepared for environmental emergencies to enhance our resistance to environmental risks.



### Identification and assessment of environmental risks

- We have compiled the *CNNP Checklist of Environmental Risks* to sort out potential environmental risks faced by the Company.
- We have compiled the *Guide on Hierarchical Management of Environmentally Sensitive SSCs*, which clarifies environmentally sensitive grading principles and identifies environmentally sensitive structures, systems, and components (SSCs).
- We regularly sort out risks of production and effluent discharge outlets of equipment and facilities to the environment, and conduct risk assessments correspondingly.



### Hierarchical control of environmental risks

- We carry out hierarchical management and control of environmental risks clarify the management and control responsibilities of each level, striving to ensure that the rectification plan is implemented, all responsibilities are fulfilled, all tasks are completed on time, and a proper budget plan and a contingency plan are developed.
- We keep records of the results of environmental risk assessments and have formulated and released the *Contingency Plan for Environmental Emergencies*, the *Special Contingency Plan for Nuclear Emergencies of CNNP*, etc. in accordance with the assessment results.
- To enhance our ability to respond to environmental emergencies, we carry out regular emergency drills to enhance our emergency preparedness and response.

## Environmental Management Strategy

The Company has set up environmental management objectives and actively promoted the establishment of a modern environmental governance system. Environmental management systems, such as the *Environmental Protection Management Outline*, have been set up to boost the Company's investments in environmental governance, promote the integration of the environmental management system into daily activities with environmental impacts, and enhance CNNP's environmental protection capabilities.

### Environmental Management Objectives

#### General objective

By 2025, CNNP will bring all environmental risks under effective control, comprehensively enhance its environmental protection capabilities, and form an environmental governance system with a clear division of responsibilities, specific targets, scientific decision-making, participation of different parties, and strong execution.

#### Specific objectives



##### Nuclear and radiation fields

CNNP will put gaseous and liquid effluents from nuclear facilities under stricter control and maintain a good radiation environment;  
CNNP will further enhance effluent and environmental monitoring and obtain all environmental monitoring qualifications needed by nuclear power plants;  
CNNP will strengthen the management of temporary storage of solid waste to ensure the safe storage of solid waste.  
CNNP will enhance radiation safety management to ensure radiation safety of the nuclear power plants as a whole.



##### Non-radioactive fields

CNNP will clarify the environmental protection responsibilities of each level and further improve the environmental protection management system.  
CNNP will guarantee safe and stable operation of air pollution control and wastewater treatment facilities, as well as safe storage and treatment of solid waste and hazardous waste.  
CNNP will strengthen its basic environmental protection capabilities.

## Environmental Management Organization System

The Company sets up an environmental management organization system to guarantee that each level of organizations fulfill their due environmental protection responsibilities. In the environmental management organization system, the Chairman, who is also the Secretary of CNNP Party Committee, and the General Manager, will be the first responsible person for environmental management; The deputy general manager in charge of environmental protection assumes direct responsibility for environmental protection and monitoring; The Safety and Quality Department conducts environmental protection. Such an organization system motivates CNNP's subsidiaries to clarify environmental protection responsibilities of each department and each level, and formulate the list of environmental protection responsibilities to be fulfilled.

### Environmental Management Guarantees

Formulating the *Guidelines for the Identification and Evaluation of Environmental Factors* and the *Environmental Monitoring Management Guidelines*, and improving the *Environmental Protection Management Outline*.

Designing, constructing and putting in use environmental protection facilities along with the construction project and optimizing the environmental impact assessment system for construction projects (including new construction, reconstruction, and expansion projects).

Increasing investments in environmental governance to provide greater financial support for environmental protection

Establishing a system to reward environmentally friendly practices and punish pollution, including environmental protection performance into the MKJ assessment system, and strengthening environmental protection assessment and accountability.



Environmental Impact Monitoring

Strictly abiding by laws and regulations, including the *Environmental Radiation Protection Regulations of Nuclear Power Plants and the Regulations for Environmental Radiation Monitoring of Nuclear Power Plant*, the Company has implemented environmental monitoring plans, and improved the environmental monitoring system to ensure that the discharge of radioactive effluents from meets regulations. In 2020, the three barriers of nuclear power plants in operation functioned well, and the performance of the radioactive gases, liquid and solid waste treatment system met the design requirements. The discharge of radioactive effluents was under effective control with no impact on the environment and public health.

Enhancing quality control of environmental monitoring

- Conducting monitoring in strict accordance with the radioactive effluent and environmental monitoring outlines
- Strengthening the training of monitoring personnel and requiring them to take positions after acquiring relevant qualifications through training
- Conducting monitoring comparisons and regularly verifying the capabilities of environmental monitoring laboratories
- Entrusting qualified agencies to monitor certain projects that the Company cannot monitor independently

Strengthening the configuration of environmental monitoring capabilities

- Enhancing automation, standardization and IT application to realize the forecast and early warning of environmental quality problems
- Regularly carrying out internal review and management review, and promoting the CNAS certification of environmental monitoring laboratories to ensure the authenticity and accuracy of monitoring information

Enhancing environmental information management

- Strengthening the statistical analysis of environmental data, and submitting monthly and annual environmental monitoring reports to relevant national authorities as required
- Disclosing environmental monitoring information in accordance with the law for the supervision of regulators at all levels and the public

Development and Utilization of Clean Energy

CNNP thoroughly implements the national energy strategies, and has been continuously building an industrial pattern featuring "nuclear energy + non-nuclear clean energy + agile new industry" with a focus on nuclear energy development. Meanwhile, the Company vigorously promotes the development of non-nuclear clean energy, so as to provide customers with more green energy options.

Clean Nuclear Energy

The Company has formulated rolling plans for the approval and commencement of construction of nuclear power projects in accordance with the national nuclear power development plan as well as the development strategy of "one policy for one province, one policy for one plant" based on the energy needs of various provinces and the progress of existing nuclear power plants. The Nuclear Energy Business Development Department has been set up to coordinate the development and site protection of both existing and new nuclear power projects.

The Company ensures the stable operation of nuclear power units by tightening nuclear safety management. By implementing the three-year action plan for improving work safety and the comprehensive improvement plan for safe and reliable operation, CNNP has optimized the production management process, and improved the safety and reliability of its units. Focusing on the core goal of "ensuring nuclear safety", the Company has carried out a package of tasks to improve the operational reliability of nuclear power plants in terms of equipment reliability, human error prevention, overhaul and optimization, operation and production, etc.

During the 13<sup>th</sup> Five-year Plan period

- CNNP added more than **500** TWh of nuclear power generation capacity, equivalent to reducing the consumption of **150** million tons of standard coal, reducing emissions of **410** million tons of CO<sub>2</sub>, **1.34** million tons of SO<sub>2</sub>, and **1.16** million tons of NO<sub>x</sub>, and planting **1.44** million hectares of forestation.

In 2020

- Electricity generated through nuclear energy **148.336** TWh
- Electricity sold based on market-based mechanisms **51.184** TWh
- Electricity connected to the power grid **138.097** TWh

Other Clean Energy

The Company vigorously promotes the development of new energy in line with the principles of "large scale, high efficiency, application of cutting-edge technologies, a reasonable industrial structure, and excellent asset quality," and has achieved leapfrog development in 2020. As of the end of 2020, CNNP's total installed capacity of new energy projects in operation reached 5,249.9 MW, and the total installed capacity of new energy projects under construction was 1,702.4 MW. In 2020, the Company successfully acquired China Rich Energy Corporation Limited, marking a key step forward in the new energy industry. New energy has gradually become an important pillar of the Company's non-nuclear growth, and its new energy power generation capacity has reached 5.640 TWh.

By the end of 2020

Electricity generated by solar power projects **2.367** TWh

Electricity generated by new projects **5.640** TWh

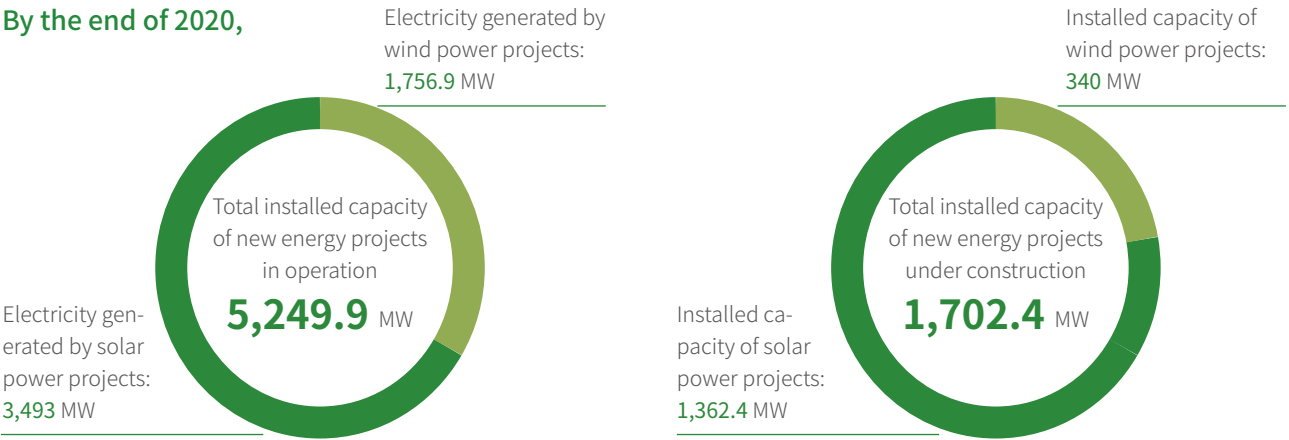
Electricity generated by wind power projects **3.273** TWh



China Rich Energy Corporation Limited fishery-solar hybrid project in Nandagang, Cangzhou



By the end of 2020,



Case

China Nuclear Kunhua Energy Development Co., Ltd. (China Nuclear Kunhua) builds the first distributed medium-depth geothermal heating project

Guided by the goal of "using 'nuclear grade' standards to ensure residential heating", China Nuclear Kunhua Energy Development Co., Ltd. (China Nuclear Kunhua) takes advantage of the sufficient geothermal and water-thermal energy reserves in Kaifeng, Henan Province, and has built the city's first distributed medium-depth geothermal heating project through the cascade utilization of mid-deep geothermal energy without affecting the groundwater. The project provides heat for multiple residential communities with a total area of nearly 600,000 m<sup>2</sup> in Kaifeng, such as the community of Zhenyu Garden. While carrying out system debugging, defect elimination, and heating preparations, the company collected data about residents' usage habits through household surveys, follow-up phone calls, equipment monitoring, etc., in order to conduct hydraulic balancing to ensure the sound operation of the system, and that the heat supply is up to standards.

Low Carbon Management

CNNP strictly abides by the *Atmospheric Pollution Prevention and Control Law of the People's Republic of China* while making contributions to the critical battle of pollution prevention and control, and protecting our blue skies. The Company has integrated low-carbon and environmental concepts into all stages of nuclear power generation, including site selection, design, construction, operation, maintenance, etc., and is committed to reducing CO<sub>2</sub> emissions to assist China in attaining the goal of "peaking CO<sub>2</sub> emissions before 2030 and achieving carbon neutrality before 2060."



Further information

On September 22, 2020, President Xi Jinping of the People's Republic of China attended the General Debate of the 75th Session of the United Nations General Assembly, where he first put forward that "China will strive to peak CO<sub>2</sub> emissions before 2030 and achieve carbon neutrality before 2060." President Xi Jinping also delivered important speeches on seven important international occasions on China's aims for peaking CO<sub>2</sub> emissions by 2030 and achieving carbon neutrality by 2060. The goals are major decisions made by the CPC Central Committee with Comrade Xi Jinping at its core, and they point out the direction for China's clean energy and low-carbon transition, and demonstrate China's firm resolve to address climate change.



"Peaking CO<sub>2</sub> emissions" means that CO<sub>2</sub> emissions (annual) will no longer increase after reaching a peak, and will gradually decrease.



"Carbon neutrality" refers to the state of net-zero CO<sub>2</sub> emissions. This can be realized by balancing emissions of CO<sub>2</sub> by planting trees, saving energy, cutting emissions, etc.

Low-carbon Operation

The Company attaches great importance to integrating the green and low-carbon concept into all aspects of the construction and operation of nuclear power projects, and continuously reduces CO<sub>2</sub> emissions through technological transformation, equipment optimization, and improvement of management measures.

Steps	Carbon emission factors	Actions of CNNP
Project construction	<ul style="list-style-type: none"><li>Construction technology plans</li><li>Concrete pouring methods</li><li>Vehicle transportation efficiency</li></ul>	<ul style="list-style-type: none"><li>Organizing environmental impact assessment, conducting environmentally friendly research, and embedding the environmental protection concept into construction design and technical scheme to promote "zero emission" of carbon dioxide.</li><li>Reducing carbon dioxide emission through the optimization of the concrete casting by industrial means.</li><li>Improving the material transportation efficiency and reducing the carbon emission of transportation vehicles</li></ul>
Project operation	<ul style="list-style-type: none"><li>Equipment operating modes</li><li>Operating condition of power generating units</li><li>Daily work</li><li>Transportation</li></ul>	<ul style="list-style-type: none"><li>Optimizing the operation and energy consumption of production equipment through technical transformation, eliminating high energy consumption equipment to reduce the power consumption of nuclear power plant.</li><li>Tracking closely the change of unit output and conducting analysis and review for any system abnormal situation.</li><li>Advocating green office by setting up a reasonable time limit for computer power supply, posting the label of saving electricity and saving paper</li><li>Advocating low-carbon travel and adding urea liquid for vehicles to reduce carbon emission of commuter vehicles.</li></ul>

Case

Qinshan Nuclear Power Co., Ltd. and Haiyan build a demonstration project for enterprises and local governments to jointly pursue zero carbon emissions

In 2020, Qinshan Nuclear Power Co., Ltd. signed a strategic cooperation agreement with the county government of Haiyan, Zhejiang Province. Their cooperation is an important move to promote green and low-carbon development, and support Zhejiang's construction of an exemplary clean energy province. The two parties will draw on each other's strengths and share resources in achieving coordinated development through win-win cooperation, and will promote the development of a "City with a Zero-Carbon Future" to create a national demonstration high-quality development zone featuring "Zero Carbon Energy and Green Development."



Signing ceremony of strategic cooperation agreement between Qinshan Nuclear Power Plant and Haiyan County



## Low-carbon Activities

The Company vigorously improves the environmental awareness and abilities of all employees by incorporating environmental protection into the employee training system and Party leadership, and publicizing environmental protection among families, workshops, sites, and office buildings. Meanwhile, the Company actively promotes environmental products, and organizes a series of activities during the energy-saving publicity week and on the National Low-carbon Day, so as to encourage employees to live a green life with green travel and green consumption.

### Case Fuqing Nuclear Power Plant launches the science popularization activities of World Environment Day on June 5

June 5 is the World Environment Day. Fuqing Nuclear Power Plant, combining the 8<sup>th</sup> "Appealing Light" Cup nuclear power knowledge contest (Fuqing zone) and the World Environment Day, went to the downtown business district and brought a "down-to-earth" science popularization activity to the public.

Parents and their kids can go around four areas and experience different forms of science popularization at the activity site: in the interactive doll catching area, citizens can get free game coins and catch Hualong doll by answering questions on their mobile phone; in the "green nuclear energy" themed science exhibition area, citizens can enjoy the beautiful scenery around Fuqing Nuclear Power Plant, and vote for the works of small painters; in the hourly interactive area, the popular science videos are played circularly, and the citizens can answer the questions raised by the hosts according to the video; in the flag photo area, the message area became the "Wishing Wall" for the public to leave the best wishes on the interactive wall.

On the day of the activity, Fuqing Nuclear Power Plant also launched a series of publicity activities, such as the World Environment Day environmental protection knowledge contest, the proposal for all on the World Environment Day, and the popularization of Environmental Protection Law and environmental protection knowledge. The activity popularized the knowledge of energy conservation and emission reduction to the general public, and vigorously promoted a green, low-carbon and environmental-friendly life.



The "6.5 World Environment Day" themed science popularization activity by Fuqing Nuclear Power Plant in the downtown business district

## Water Resources

Responding to the requirements for water pollution control, the Company follows the *Integrated Wastewater Discharge Standard and the Sea Water Quality Standard*, and continues to improve the energy consumption management rules. We have formulated water resources management strategies to enhance water management, improve water use efficiency, and ensure sustainable water consumption.

### Reducing Water Consumption

The Company has revised the *Regulations on the Use of Freshwater* to reduce the consumption of fresh water, and facilitated the installation of smart water meters to incorporate measurement data into the online energy consumption system through the wireless transmission mode. The Company makes full use of new technologies, new processes and new equipment in the creation of a real-time online water measurement and analysis system, with the purpose of rationally planning the system's water consumption and reducing water consumption. The Company has also posted water conservation signs to remind employees to save water and enhance their awareness of water conservation.

## Improving Water Use Efficiency

### Water pollution prevention

- Setting up drainage outlets in accordance with strict requirements, and installing real-time monitoring devices for centralized non-radioactive wastewater treatment, rainwater and wastewater separation, and drainage outlets to the sea
- Strengthening the monitoring of discharged water quality to ensure that it meets the standard
- Upgrading domestic sewage treatment plants and raising the standards for domestic sewage discharges to the Level A Criterion in the *Pollutant Discharge Standards for Urban Sewage Treatment Plants*
- Carrying out technical transformation of the treatment system of oil-containing sewage wastewater to ensure that sewage discharge meets the standard

### Wastewater recycling

- Upgrading the domestic sewage treatment and using the recycled water for road cleaning, irrigating green belts, and flushing toilets in buildings in temporary construction areas and areas in front of the plants, etc.
- Upgrading the chlorine production station for the recycling of supernatant after the precipitation of wastewater from the electrolysis of seawater

### Case Qinshan Nuclear Power Co., Ltd. carries out a comprehensive upgrade of drainage outlets into the sea

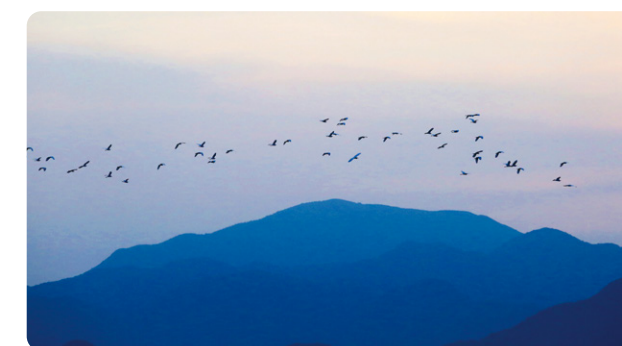
According to the *Implementation Plans for Coastal Pollution Control in Zhejiang Province*, Qinshan Nuclear Power Co., Ltd. has comprehensively upgraded its sewage outfalls into the sea by reducing the number of outlets. It has installed real-time monitoring devices for centralized non-radioactive wastewater treatment, rainwater and wastewater separation, and drainage outlets to the sea.

## Hazardous Emissions, Discharges and Waste

CNNP keeps improving the solid and hazardous waste management system, earnestly implements strict regulations on radioactive effluent management, and actively minimizes radioactive waste by meticulously recording waste discharges and reducing the amount of solid waste.

### Radioactive Waste Treatment

The Company has improved the environmental governance system for nuclear and radiation to strengthen the safety management of radioactive waste. We have tightened the approval of applications for waste discharges, strengthened discharge monitoring, and continued to reduce radioactive waste produced by nuclear power plants. Moreover, all subsidiaries of CNNP carry out strict clearance and control of radioactive waste. In 2020, the treatment system for solid waste, wastewater, and waste gases ran well with no excessive discharges of radioactive materials throughout the year, and the amount of solid radioactive waste was under control.



Cranes flying over the Sanmen Nuclear Power Plant



Case

Signing a framework agreement on radioactive waste transportation and disposal with CNNC Environmental Protection Co., Ltd.

CNNP and CNNC Environmental Protection signed a framework agreement on radioactive waste transportation and disposal to coordinate and facilitate the transportation of radioactive solid waste from nuclear power plants. The cooperation has greatly eased nuclear power plants' pressure from the large inventory of solid radioactive waste, and reduced the risks from nuclear waste in storage. It will also guide the transportation and disposal of nuclear waste in the future. In 2020, Qinshan Nuclear Power completed the outward transportation of 700 m3 of solid radioactive waste and 30 tons of metal waste. In addition, Jiangsu Nuclear Power Co., Ltd. completed the outward transportation of the first batch of radioactive waste.

Case

Qinshan Nuclear Power Plant promotes the minimization of radioactive waste

Qinshan Nuclear Power Plant takes such measures as separate collection, delay and decay, clearance and recycling to effectively control and minimize discharges of radioactive waste, and reduce the activity and volume of radioactive waste as much as possible. The plant has set targets for radioactive waste management, the results of which are tracked, evaluated and analyzed. Through the optimization of technology and management, Qinshan Nuclear Power Plant explores suitable methods for storing radioactive waste and controlling the amount of radioactive waste at a reasonable minimum level.

Non-radioactive Wastes

The Company complies with laws and regulations, such as the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution Caused by Solid Waste, the Regulations on the Management of Radioactive Effluent Discharge, and the Environmental Inspection and Supervision Plan (2020). We have improved the solid waste and hazardous waste management system as well as the specific regulations within the system, and archived general solid waste and hazardous waste practices. We strive to reduce the amount of solid waste from the source through effective non-radioactive solid waste management (including hazardous waste) and non-radioactive effluent management.

Non-radioactive waste management

NCCP strictly follows the Non-Radioactive Solid Waste Management, Non-Radioactive Solid Waste Supervision and Management, Non-Radioactive Waste Supervision and Management, and Non-Radioactive Industrial Solid Waste Management, and identifies waste according to the Company's specific list of potentially hazardous wastes. If a certain type of waste is identified as hazardous, it must be disposed of in accordance with the hazardous waste disposal process after being approved. Non-hazardous waste needs to be treated in accordance with the normal industrial waste treatment process.

Non-radioactive effluent management

NCCP follows the regulations of Non-Radioactive Effluent Supervision and Management, Non-Radioactive Wastewater Management, and Chemical Discharge Management. For the treatment of wastewater from nuclear power plants, wastewater samples are required for analysis. If the result meets the discharge standards, the Company can discharge wastewater after obtaining approval. Otherwise, the wastewater needs to be further treated.

Biodiversity Conservation

CNNP carries out special environmental protection activities, investigates environmental risks, and conducts special environmental self-inspections. The Company has compiled the *Special Action Plans for Environmental Protection* and *CNNP Environmental Risk Investigation Summary Sheet* to track and supervise the implementation of the special action plans. In 2020, CNNP held the Video Conference on Environmental Protection in the Nuclear Power Generation Sector. At the meeting, participants learned the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution Caused by Solid Waste*, and analyzed the risks in the Company's environmental protection actions. They also discussed hot issues such as the subject of responsibility for environmental protection, response to weather-induced pollution, diversion of rainwater and wastewater, dust, noise, radioactive sources, etc.

Sanmen Nuclear Power Plant was awarded the honorary title of Beautiful Plant (Institution) of Enterprises and Institutions Under the Direct Administration of the Zhejiang Provincial Government.

Case

Hainan Nuclear Power Co., Ltd. contributes to environmental protection in Hainan Province

Hainan Nuclear Power Co., Ltd. has persisted in environmental protection while implementing an integrated greening design and construction project at the power plant. With coconut trees and palm trees that have been planted around the power plant, Hainan Nuclear Power has built a veritable garden plant. As a National Industrial Tourism Innovation Unit, the plant boasts an annual power supply capacity of 9 TWh to 10 TWh, accounting for about 1/3 of Hainan's total electricity consumption. The development of nuclear power has provided strong impetus for the green development of Hainan. Each 650 MW nuclear power generating unit can generate 5 TWh of electricity annually, which is equivalent to the reduction of 1.5 million tons of standard coal, 3.74 million tons of carbon dioxide and 29,000 tons of sulfur dioxide. The environmental effect combined is equal to building a new Wuzhishan Forest Park every three years.

Scan the QR code to learn more about Hainan Nuclear Power Plant



Egrets forage near the Qinshan Nuclear Power Plant.

Scan the QR code to learn more about Qinshan Nuclear Power Plant





# Society

## Investor Q&A

 Q:

Talented persons, especially high-skilled ones, have been a significant competitive edge of nuclear power enterprises as reforms of this industry keep deepening. How does CNNP absorb, retain and develop human capital?

 A:

CNNP, regarding employees as the most valuable asset, upholds the strategy of giving priority to talents. We have established a more competitive policy of talent guarantee and stimulation in the nuclear power industry, and implemented *CNNP Elite Programme* to attract and cultivate young backbone employees who are adept in learning and starting undertakings, and have strong competitive capabilities. In addition, we establish a top talent channel and a mechanism of a list of successful candidates or applicants published by the Company to encourage technical and skilled staff to carry out research on problems related to work safety, thus building a platform for the growth of scientific and technological personnel to display their competencies.



# Human Capital Development

CNNP, giving priority to human resources development and investment in talent development, integrates the "Pick, Placement, Professional and Preservation" concept in all processes of business operation. We introduce and deploy human resources rationally to guarantee smooth flow of nuclear talents and realize orderly flow and distribution of human resources within the Company. Besides, the Company dedicates itself to constructing an influential nuclear power talent highland by integrating training resources, and improving the system of nuclear power talent cultivation as well as facilities for vocational skill training to foster talents in this field.

## Talent Development

Under the strategic development philosophy of "standardizing human resources," CNNP adheres to rational introduction and allocation of talents through the dual channels of market selection and internal selection, actively participates in the compilation and development of the manual for quantitative assessment of human resources management to propel the realization of quantitative assessment by human resources departments, thus building a well-structured and fully motivated high-quality team.



### Talent selection and allocation

The Company rationally introduces and allocates talents through external recruitment and internal selection, constantly stimulating the vitality and driving force of the team.

- Special nuclear power talents are introduced through recruitment, internal transfers, secondments and social recruitment to support the construction of special projects. Moreover, campus recruitment is enhanced to attract outstanding graduates to throw themselves into the nuclear power industry.
- We conduct standardization research on the configuration of CNNP's leadership team through configuration analysis and industry benchmarking, and propose a standardized configuration system for the leadership team consists covering job requirements, as well as selection and configuration standards. Through this, we ensure that the standardized configuration of the leadership team and the standardized organization of nuclear power plants are simultaneously progressed in different stages.
- We launched the Excellent and Distinguished Youth Project to cultivate and select young cadres, thus ensuring the sufficiency of cadre resources.



### High-caliber talents

To boost the construction of a professional and technical team, CNNP takes the initiative to foster high-caliber talents, accelerate the development of professional and technical talents, and sort out high-caliber talents in various fields, laying a foundation for talent cultivation and unified talent allocation.

- Thirty sub-fields have been set up under CNNP's professional and technical fields, with 280 high-caliber talents in various areas.
- The Company has sorted out 213 high-caliber talents in strategic planning, security and quality, engineering construction, and other fields.



### Talent promotion channels

The Company offers smooth career development and promotion channels for employees to let them play their roles in appropriate positions and achieve maximum personal value.

- We establish a scientific and universal system of positions, which covers five career development sequences, and clarifies qualification requirements for each level of the three teams and five career development sequences, so as to cultivate management personnel, technical talents, and skilled workers.
- A top talent channel is set up to facilitate the rapid development of outstanding technical talents, while a list of successful candidates or applicants is published by the Company to encourage technical personnel to solve problems related to work safety. This provides a platform for scientific and technological personnel to develop and get promoted and to display their competencies.

## Talent Training

CNNP combines strategic development, demand for human resources, and the three-team talent cultivation system covering technical talents, skilled workers, and management personnel to form diversified empowerment platforms and training systems to support employees' career development. Besides, we plan to provide cadre training, safety training, new employee training and management training in various fields for different levels of positions, aiming to meet the training needs of all subsidiaries and efficiently enhance employees' technical and management capabilities as well as the overall quality of talents. In 2020, a total of 13,466 employees of CNNP received training, with an average training time of about 150 hours per employee and a training coverage rate of 98%.



### Building diversified empowerment platforms

The Company sets up professional empowerment platforms for fostering different levels of talents by improving their vocational skills and professional quality in a systematic and professional way.

- Committed to advancing training and lifelong re-education of all CNNP's staff, CNNP integrates high-quality nuclear power training resources, establishes the Academy of Nuclear Power, compiles standardized training materials, designs unified, high-quality courses, sets up a hierarchical management system for internal trainers, and builds a training and evaluation system.
- Focusing on the developing strategy, the Company establishes Hualong International Institute, which is considered as a talent training base for Hualong One to improve its training system.
- The Company establishes national and provincial skill master studios, "electrical studios" and other studios for technical staff to foster highly skilled talents through mentoring, problem solving, and other means. As of the end of 2020, the Company had established six skill master studios in total.
- A special skill appraisal station has been built to carry out skill appraisals of senior technicians, technicians, senior engineers, and intermediate engineers of five nuclear-specific positions, including the nuclear reactor operation watchman.





### Cultivating diversified talents in the field of nuclear power

The Company sets up a training system covering the entire career of employees to foster management personnel, technical workers and high-caliber talents, thus pushing forward the high-quality development of the Company with a better talent team.

- We held the first Nuclear Professional Leadership Seminar, a platform for trainees to broaden their horizons, unify their thinking and exchange their experiences and techniques, as well as a bond between nuclear power plants, trainees and internal trainers.
- We have improved the mechanism for selecting and fostering young cadres and implemented the "Excellent and Distinguished Youth Project" for closed-loop management of young cadres.
- The Company not only organizes regular professional skill competitions, but encourages employees to participate in all kinds of domestic and foreign skill competitions, providing a platform for skilled talents to show their techniques and learn from each other.
- Based on the systematic training methods recommended by IAEA, CNNP's subsidiaries compile their own job training outlines with clear training requirements, and provide education funds for employees to support them in various re-education activities.



An operator skill competition in Sanmen Nuclear Power Plant



The first Nuclear Professional Leadership Seminar of CNNP was held in Haining, Zhejiang Province, on October 26.

## Protection of Rights and Interests

Strictly abiding by national laws and regulations as well as labor policies, CNNP supports and respects the protection of human rights which is recognized by the international community. We fully protect the legitimate rights and interests of employees, and form a diversified and inclusive corporate culture and harmonious employee-employer relations.

### Employment

In strict accordance with the *Company Law*, the *Labor Law* and other laws and regulations, we formulate equitable and diverse recruitment policies. We prohibit any form of discrimination, treat employees equally regardless of their genders, nationalities, beliefs, and so on to promote equal and diverse recruitment and build a diverse and inclusive workplace. In 2020, we had a total of 14,506 employees.

In 2020

Number of employees reached

14,506

Proportion of female employees in middle-level management positions or above

7%



We strictly abide by national and international labor rules. Before a job interview, we confirm the basic information of the applicant, such as his or her age, to forbid child labor. We avoid any forms of forced labor. In 2020, we complied with all employment laws and regulations and totally avoided child labor and forced labor.

According to the *Labor Contract Law* and on the basis of lawfulness, fairness, equality, free will, negotiation for agreement, and good faith, we sign labor contracts with employees which specify working hours, rights to rest and leisure, compensation and benefits, as well as other rights and obligations, effectively protecting the legitimate rights of employees. In 2020, we had an employee contract signing rate of 100%.

Type of personnel	Managers	14.33%
	Business personnel	15.49%
	Specialized personnel	36.76%
	Operational personnel	22.89%
	Skilled personnel	8.40%
	Others	2.13%
Educational background	Master's degree or higher	8.94%
	Bachelor's degree	81.92%
	Junior college	7.87%
	Secondary vocational school or lower	1.27%
Age structure	Below 35 years of age	63%
	36-40 years of age	15%
	41-50 years of age	15%
	51 years of age and above	7%
Gender structure	Male employees	85%
	Female employees	15%



Compensation and Benefits

We have formulated the *CNNP Employee Compensation System* and the *CNNP Gross Payroll Management Regulations*, and kept optimizing the salary rise mechanism based on market principles while paying the same wage for the same job on time and in full. We continue to improve our benefits system by providing employees with mandatory insurance plans (endowment insurance, medical insurance, unemployment insurance, employment injury insurance, maternity insurance) and housing provident fund. Besides the basic medical insurance scheme, we offer a supplementary one to further ease employees' medical burden, and establish the enterprise annuity to guarantee life-long security for employees after retirement. In 2020, our social insurance schemes covered 100% of employees.

To attract and retain talent, we have implemented the *CNNP Elite Program*, raised salaries of new employees and provided housing subsidies for graduates of targeted majors from universities enlisted in the "Double First-Class" initiative. A batch of outstanding employees are evaluated and selected into the CNNP Elite Program each year and provided with awards. Through the program, we attract and cultivate high-quality young talents who are adept in learning and starting undertakings.

Democratic Communication

CNNP continuously improves the democratic communication system represented by the labor union and workers congress. We elect employee representatives as directors and supervisors, and establish multiple communication channels, such as the "voice of employees" mailbox and general manager reception day, to listen to employees and encourages employees to participate in corporate governance and make suggestions. In this way, we fully protect employees' rights to know, participate, express, and supervise.



In 2020

In 2020, CNNP conducted questionnaire surveys on corporate culture and employee opinions based on such indicators as happiness, the sense of gain

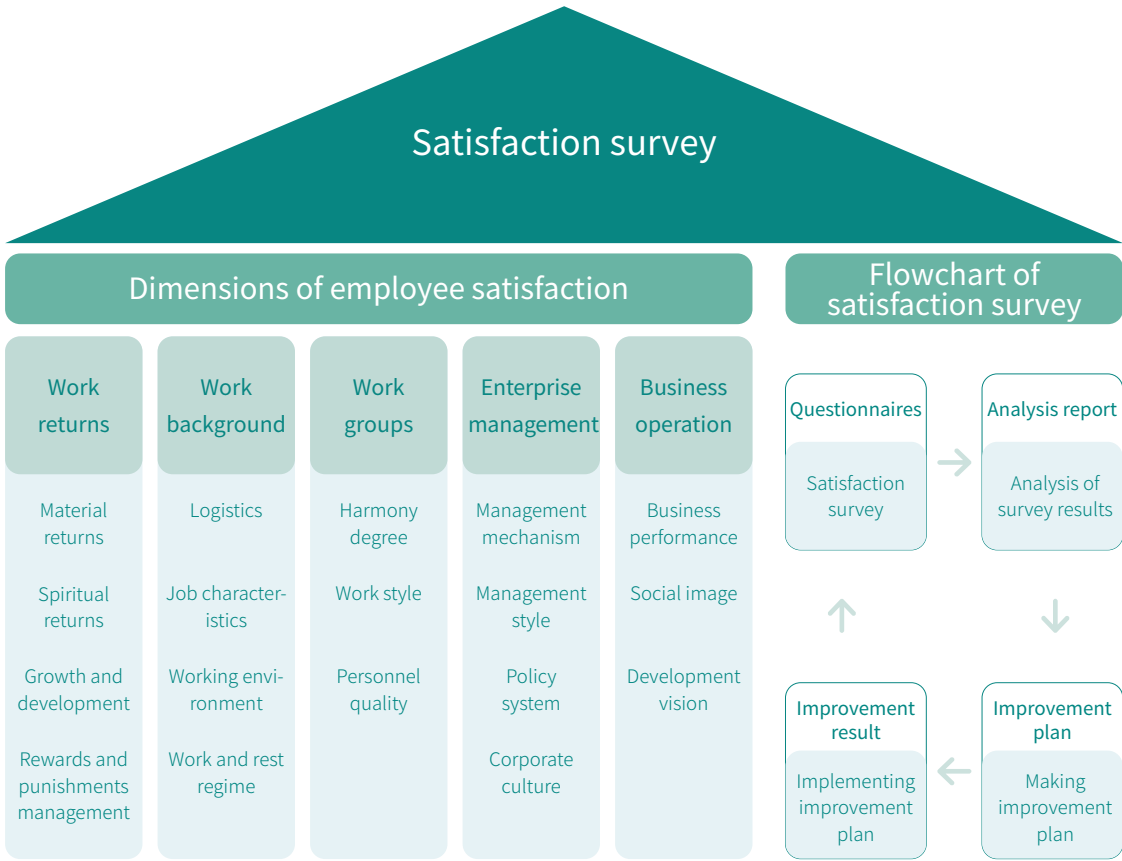
and the sense of belonging. A total of **12,309** employees were surveyed

accounting for **84.85%** of the total



Case Fuqing Nuclear Power Plant carries out employee satisfaction surveys

Fuqing Nuclear Power Plant determined the procedure for employee satisfaction surveys and collected employees' concerns through the workers congress, questionnaire surveys and discussions based on relevant requirements in the *Employee Satisfaction Management* and the *Employee Opinion Survey*. It classified employees according to five career paths and four position levels, identified positive and negative factors that affect different dimensions of employees' satisfaction, conducted a statistical analysis of dissatisfaction, and developed an improvement plan to respond to employee expectations and demands in a timely manner.





Physical and Mental Health

While strictly complying with relevant laws and regulations, such as the *Law on the Prevention and Control of Occupational Diseases* and the *Provisions on the Supervision and Administration of Occupational Health at Work Sites*, CNNP assumes its responsibilities for the prevention and control of occupational diseases. Based on the overall requirements in the *National Occupational Diseases Prevention Plan (2016-2020)*, we stick to a correct occupational health philosophy and provide occupational health services for employees. By designing, constructing and putting in use health protection facilities along with the construction project, the Company strives to create a healthy and safe workplace, and build a workforce formed by happy, optimistic and physically and mentally healthy employees.



Creating a safe workplace

Conducting daily monitoring and informing employees of occupational disease hazards; Based on employees' self-monitoring, entrusting a professional institution to conduct supervisory testing and evaluation of occupational disease hazards; Conducting competence assessments for employees exposed to occupational disease hazards; Tracking different types of occupational hazards and establishing occupational health surveillance archives for employees; Improving signs and caution cards for warning against occupational disease hazards; Designing and conducting acceptance inspection of protective facilities against occupational diseases of nuclear power units.



Caring for employees' mental health

Organizing health training, lectures, and emergency rescue drills to spread occupational disease knowledge among employees and improve their protection ability; Carrying out the Employee Assistance Program (EAP), relieve employees' stress and care for their mental health through the intelligent mental wellness platform, psychological self-help book station, 24-hour psychological counseling hotline and regular on-site psychological counseling.

Case Introducing advanced international EAP philosophy and services

In November 2020, the CNNP EAP program was fully implemented. With the support of existing personnel and platforms as well as external professional institutions and platforms, CNNP built a professional EAP team and an online intelligent mental wellness platform to integrate the EAP program in daily work, thus ensuring systematic and long-term psychological management and caring for employees' mental health.



The CNNP EAP Program

In 2020

Expenditure on labor protection items  
**68.0433** million yuan

Coverage of employee health examination  
**100** %



Community Engagement and Development

CNNP fully learns about the demands of the local community, and pays special attention to the sustainable development of left-behind children and poor people. The Company actively integrates with and helps the community to increase enhance public interests and promote community development.

Total tax payment of CNNP in 2020

**6.548** billion yuan (¥)

Wealth and Income Creation

CNNP actively fulfills its obligation to pay taxes, and makes full use of its expertise, technologies and resources to participate in community development. We help improve the quality of local life, drive local economic development and improve the well-being of society as a whole.



Employment support

CNNP provided jobs and entrepreneurship opportunities for local people. We helped lift the poor out of poverty by signing general affairs and labor dispatching contracts with sister companies, and making coordinated efforts in asking contractors to hire workers from their adjacent villages first.



Cultural inheritance

Through initiatives such as building cultural squares and restoring cultural facilities, we protect and promote traditional local cultures. Hainan Nuclear Power Plant has supported cultural promotion activities in Sanlian Village for many years to promote traditional Hainan cultures, such as the intangible culture of the Li people.



Infrastructure construction

CNNP helped improve local infrastructure by widening roads, building soccer fields, and upgrading sewage pipeline networks, which improved the lives of local villagers and made the village more attractive.



Fight against COVID-19

CNNP donated funds and medical supplies, including masks and hand sanitizers, contributing to the local fight against the pandemic.

Case Hainan Nuclear Power Plant takes its responsibilities to promote ecological progress

To further improve river and lake management, Hainan Nuclear Power Plant fully implemented the policies and decisions of the CPC Central Committee, the CPC Hainan provincial committee, and the provincial government on promoting ecological progress and establishing a system of river chiefs and lake chiefs. According to the *Clear Water Action Plan of Hainan Province* and the *Notice of Hainan Province on a Detailed Clear Water Action Plan*, Hainan Nuclear Power Plant included the flood discharge channels outside its gate into the Sanlian River area and took its corporate responsibility as a river chief to improve the environment of the river, promote green development and ecological progress.



The launch of the "Clear Water" River and Lake Renovation Project of Changjiang Li Autonomous County in 2020



Targeted Poverty Alleviation

Closely following important instructions of President Xi Jinping on poverty alleviation and firmly upholding the spirit of the 19th CPC National Congress, CNNP vigorously promotes targeted poverty alleviation, develops targeted policies based on the overall situation, and improves poverty alleviation mechanisms. We have mobilized poverty alleviation personnel to promote poverty alleviation work driven by industry development, consumption, infrastructure construction, and education improvement, providing comprehensive assistance to poverty-stricken counties (villages) and boosting rural revitalization.



Improving poverty alleviation mechanism

CNNP works with its subsidiaries at all levels to seek performance improvement. We make detailed poverty alleviation work plans on a quarterly basis and incorporate the poverty alleviation performance of our subsidiaries into their annual performance appraisal. All subsidiaries take the initiative to collaborate with the Company to complete poverty alleviation tasks, and build a logistical support system guaranteed by effective guarantee measures, strict specifications, and meticulous care. In light of local conditions, we explore the establishment of poverty alleviation work mechanisms to ensure the smooth progress of targeted poverty alleviation work.



Mobilizing poverty alleviation personnel

We have selected outstanding poverty alleviation cadres to assist poverty alleviation work in targeted regions. They have stuck to the front line of poverty alleviation and made great efforts to help people from poverty-stricken areas get rich through concerted efforts. The cadres resolutely implement the central government's poverty alleviation arrangements and decisions. Guided by the poverty alleviation targets of the central and local Party committees, the cadres have carried out poverty alleviation tasks as planned. During the 13<sup>th</sup> Five-year Plan period, CNNP appointed a total of 17 poverty alleviation cadres as village-based poverty alleviation cadres in seven provinces (autonomous region), including Liaoning, Jiangsu, Zhejiang, Fujian, Hainan, Ningxia, and Tibet.



Dedicated poverty alleviation

Based on local conditions, the Company has promoted poverty alleviation through education improvement, industry development, infrastructure construction, consumption, etc., providing strong support for poor counties (villages). In 2020, the Company completed all tasks stipulated in the Poverty Alleviation Responsibility Letter and helped targeted regions build a moderately prosperous society.

Poverty alleviation through education improvement

Liaoning Nuclear Power Co., Ltd.

Since 2012, the company has provided one-on-one assistance to poor students from schools around Xudapu Nuclear Power Plant. By the end of 2020, a total of 240 students from extremely poor households in the local area had received 400,000 yuan in donations and students with good morals and outstanding school performance had managed to receive proper education.

Sanmen Nuclear Power Plant

In cooperation with Sanmen County Science and Technology Association, we brought diverse science popularization materials, including popular science books, children's picture books, and mascots of CNNP to targeted poor villages to improve the scientific and cultural literacy of local villagers.

Xiapu Nuclear Power Plant

Xiapu Nuclear Power Plant offers one-on-one assistance to poor students with outstanding school performance from Xiapu No. 1 Middle School and grants each poor student 3,000 yuan of scholarship each year. It has built up a brand of partner assistance and helped cultivate the talents of outstanding students.



Sanmen Nuclear Power Plant delivers packages with popular science books to a poor village.

Poverty alleviation through industry development

Jiangsu Nuclear Power Co., Ltd.

The company helped Wuzhao Village build vegetable greenhouses and provided demand-based support for Houyao Village in developing the local air conditioning filter factory, a practice of poverty alleviation through the development of green industries.

Fuqing Nuclear Power Plant

Based on poor villages' rich resources, the power rationally coordinated its assistance funds to help increase the income of the village. It invested in Fuding Rural Commercial Bank, the township-level investment company, Xiangsushan Hydropower Station, Cundingzhiya Tea Company, etc., and realized an annual income of over 100,000 yuan.

China Rich Energy Corporation Ltd.

Based on the characteristics of local development, the company developed and constructed a batch of new energy poverty alleviation projects represented by the Houyao Agricultural Solar Park and the Mayuan Agricultural Solar Park in Ziyun County. In Guizhou Province, the company's new energy projects in operation have a total installed capacity of 400,000 kWh and involve a total investment of about 1.7 billion yuan.

Xiapu Nuclear Power Plant

Through the "Party branch + enterprise + poor households" model, the company guided 28 poor households to invest in the collectively owned Zhongxi Supermarket project to gain dividends from investment and increase their income. The supermarket was put into operation in March 2020, and has increased the collective income of the village by 200,000 yuan.



Jiangsu Nuclear Power Plant supports the construction of Lvtian Qingwan Air Conditioner Purification Equipment Co., Ltd. undertaken by the local government.



A tea plantation in Lutun Village supported by Fuqing Nuclear Power Plant



## Poverty alleviation through infrastructure construction

### Zhangzhou Energy Co., Ltd.

The company helped beautify Guangping Village by promoting the construction of main roads and lighting projects with 300,000 yuan of donations.

### Fuqing Nuclear Power Plant

Fuqing Nuclear Power Plant raised more than 9.2 million yuan to support Louxia Village in carrying out more than ten livelihood-benefiting projects, including elderly service centers and road hardening projects. It also helped Lutun Village pave six roads, build four river banks, and renovate more than 6,000 m<sup>2</sup> of roughcast houses, effectively improving local production and life.



The riverbank in Lutun Village built with the support of Fuqing Nuclear Power Plant

## Poverty alleviation through consumption

### Qinshan Nuclear Power Plant

Bringing together all resources of the company, Qinshan Nuclear Power Plant realizes synergies and broadens the sales channels for its unique products. It purchases agricultural products as holiday gifts for employees from Hejin Company, with which Qinshan Nuclear Power Plant has maintained benign interaction. In 2020, Qinshan Nuclear Power Plant purchased 1.8535 million yuan of products from poverty-stricken areas through Hejin Company.

### Xiapu Nuclear Power Plant

Based on consumption-driven poverty alleviation approaches, the power plant has helped enhance the sales of agricultural products of poor households. The power plant itself and its contractors have assisted poor households in Changxi Village by purchasing local agricultural and sideline products regularly. In 2020, they purchased around 100,000 yuan of agricultural products in total to contribute to local poverty alleviation.

### CNNP (Tibet) Industrial Development Co., Ltd.

Through such methods as centralized procurement by enterprises, opening shops in poverty-stricken areas, promoting products through fairs and online shopping malls, the company has expanded the market of superior local products, including high-quality natural drinking water and specialty agricultural and animal husbandry products, significantly driving industry development.

### In 2020

Investment in poverty alleviation  
**34** million yuan

Poverty alleviation projects based on industry development

**12**

Registered poor people lifted out of poverty

**6,867**

Total amount of poverty alleviation-oriented products purchased

**6.5** million yuan

Sales amount of Tibetan specialty agricultural and animal husbandry products in the nuclear power industry

**3.4** million yuan

## Volunteer Service

Giving full play to our strong expertise, human resources and other resources, we assist vulnerable groups, popularize nuclear power knowledge, prevent and mitigate disasters and protect the environment with all efforts, striving to promote the harmonious development of society.

## Caring for the elderly and children

We build a long-term mechanism for caring for left-behind children, and organize cultural and sports activities and provide psychological counseling for left-behind children to enrich their after-school life and help them grow up healthily.



Volunteers from Zhangzhou Energy Co. Ltd. carry out caring for left-behind children activity on Children's Day in Baishi primary school.

We visit and subsidize elderly people living alone in elderly care centers, help them measure body temperatures and blood pressures, and care for the health conditions of the elderly to bringing them warmth and joy.



Young volunteers of Sanmen Nuclear Power Plant hold a youth league volunteer activity in the nursing home on Chung Yeung Festival.

## Popular science popularization activities

We organize a series of popular science popularization activities, such as the Campus and Community Nuclear Safety Knowledge Popularization activity and the 5·12 National Disaster Prevention and Mitigation Day campaign, to popularize knowledge on nuclear safety, disaster prevention and mitigation, and so on, and enrich the public knowledge system.



Tianwan Nuclear Power Science and Technology Museum launched the "Inviting In" nuclear science popularization activity.

We organize volunteers to help publicize garbage sorting knowledge and collect garbage, so as to make local citizens realize the benefits and necessity of garbage sorting and protect the local environment.



Young volunteers from Liaoning Nuclear Power Co., Ltd. launched a garbage sorting knowledge publicity activity in Longbei Mountain Park, Huludao, and picked up plastic garbage in the park.



# Outlook for 2021

The year 2021 marks the beginning of the 14<sup>th</sup> Five-year Plan period. As the energy revolution keeps advancing, clean and low-carbon energy will usher in great development opportunities. A development pattern, where power sources with stable baseloads, with nuclear power as the representative, and intermittent and decentralized renewables complement each other, is taking shape at a faster speed. Firmly grasping strategic opportunities brought by the development of the nuclear sector, CNNP will promote the efficient application of advanced nuclear energy technologies and high-quality supplies of clean and low-carbon energy, thus contributing to building a nuclear industry power and a modern energy system.

## Ushering in a period of high-quality development

CNNP will build a modern state-owned enterprise governance system with characteristics of the Chinese nuclear power industry by further liberalizing and developing productivity, improving the organizational system, institutional system, responsibility system, execution system, and evaluation system. By unswervingly upholding Party leadership, cultivating talents, seeking technological breakthroughs, upgrading the industry and the economy, modernizing corporate governance, and controlling costs, we aim to further strengthen our core capabilities in the eight aspects and embark on a new journey of high-quality development during the 14<sup>th</sup> Five-year Plan period.

## Contributing to the realization of clean and low carbon development goals

We will implement the "nuclear energy + non-nuclear clean energy + agile new industry" industrial pattern more efficiently, develop new energy sectors, improve the environmental monitoring system as well as management systems of nuclear, radioactive, and non-radioactive environments, and effectively control ecological and environmental risks, aiming to enhance our environment protection capabilities comprehensively and contribute to the realization of the goals of "China will strive to peak CO<sub>2</sub> emissions before 2030 and achieve carbon neutrality by 2060."

## Joining hands to create a new future featuring harmonious coexistence

We will further prioritize talent "Pick, Placement, Professional and Preservation" make overall plans for teambuilding, technological innovations, and major projects, create platforms and mechanisms to help talents stand out, and establish technical talent teams with more scientific structures. Giving full play to our rich resources and strong expertise, we will promote rural revitalization, drive local economic development, and endeavor to realize symbiosis, win-win cooperation, and co-prosperity with our employees and society.

# CSR Honors and Awards

Recipient	Honor/Award	Award Issuer	
CNNP	2020 People's Enterprise Green Development Award	People's Daily, people.cn	
	GoldenBee Excellent CSR Report 2020 - Evergreen Award	China Sustainability Tribune magazine under the Ministry of Commerce	
	2019 China Top 500 Credible Companies and China Top 500 Listed Companies	China Enterprise Reform and Development Society, China Cooperative Trade Enterprise Association	
	Gold Round Table - Best Board Award	Directors & Boards magazine	
	Excellent Issuer of Corporate Bonds	Shanghai Stock Exchange	
	Golden Quality – Corporate Governance Award	Shanghai Securities News	
Sanmen Nuclear Power Plant	2019 Best Employers of China - Best Employers of Beijing	zhaopin.com, Institute of Social Science Survey of Peking University	
	Central SOE Grassroots Demonstration Party Branch of the State-owned Assets Supervision and Administration Commission	State-owned Assets Supervision and Administration Commission of the State Council	
	Qinshan Nuclear Power Plant, Jiangsu Nuclear Power Plant	National Civilized Unit	Central Commission for Guiding Cultural and Ethical Progress
	China Nuclear Power Operation Technology Corporation Ltd., Wuhan	Second prize of Hubei Provincial Technology Invention	The People's Government of Hubei Province
	CNNP, Jiangsu Nuclear Power Plant, Fuqing Nuclear Power Plant, Liaoning Nuclear Power Plant, etc.	Chinese Enterprises with Advanced Corporate Culture in the 13 <sup>th</sup> Five-year Plan Period	China Corporate Culture Institute



ESG Index

Dimension	Indicator	Data/Page
Governance	Key economic performance	P6
	Number of board members	15
	Number of independent directors	5
	Proportion of independent directors	33.33
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Environment	Investor relations	P15
	Environmental management guidelines and system	P22-23
	Environmental monitoring performance	P24
	Environmental protection investment	P23
	Electricity generated by new projects (TWh)	5.640
	Electricity generated by new projects (TWh)	148.336
	Total installed capacity of new energy projects in operation (MW)	5,249.9
	Total installed capacity of new energy projects under construction (MW)	1,702.4
	Reduction of GHG emissions	P25
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Dimension	Indicator	Data/Page
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	Per capital training hours	150
	Training coverage (%)	98
	Employment policies and measures	P36-37
	Employee structure	P37
	Labor standards and measures	P36-37
	Number of employees	14,506
	Proportion of female employees (%)	15
	Proportion of female employees in middle-level management positions or above (%)	7
	Labor contract signing rate (%)	100
	Compensation and benefits system	P38
	Social insurance coverage (%)	100
	Proportion of employees that are members of the labor union (%)	100
	Health and safety guarantee system and measures	P40
	Work-related fatalities	0
	Expenditure on labor protection supplies ( million yuan)	68.0433
	Coverage of employee health examinations (%)	100
	Community investment policies and measures	P41-45
	Invest in poverty alleviation ( million yuan)	34.11064
	Total tax payment ( billion yuan)	6.548
	Total participants in volunteer activities	13,118
	Total service hours of volunteers	39,738.4





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