中广核 CGN

中國廣核電力股份有限公司

CGN Power Co., Ltd.*

(A joint stock company incorporated in the People's Republic of China with limited liability)

H-share Stock Code: 1816

A-share Stock Code: 003816

2019

Environmental, Social and Governance Report

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About This Report

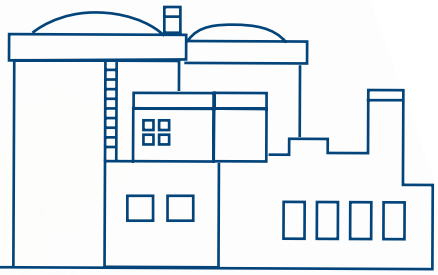
CGN Power Co., Ltd is delighted to release the fifth Environmental, Social and Governance report ("**this Report**") to set out our environmental, social and governance ("**ESG**") performance in 2019. This year, the Company continued to invite various stakeholders to conduct a materiality assessment to understand the level of importance they attach to the Company's sustainability issues and to help us develop and refine our policies on sustainable development. Through this Report, we aim to comprehensively disclose the Company's vision, strategy and practices on the path to sustainable development, in order to further enhance our ESG performance and improve stakeholders' understanding and confidence in the Company.

Reporting Period

This Report covers data and information of CGN Power Co., Ltd., its subsidiaries and major affiliated companies from January 1, 2019 to December 31, 2019 ("**Reporting Period**"). If historical data are applicable, they will also be presented for comparison.

Reporting Standards

This Report is prepared in accordance with the Appendix 27 *Environmental, Social and Governance Reporting Guide* of the *Rules Governing the Listing ("**Listing Rules**") of Securities on the Stock Exchange of Hong Kong Limited ("**SEHK**")* and the *Guidelines of the Shenzhen Stock Exchange ("**SZSE**") for Standardized Operation (2020 Revision) ("**Guidelines for the Standardized Operation of Listed Companies** ")*. This Report strictly complies with all "comply or explain" provisions in the *Environmental, Social and Governance Reporting Guide* and is prepared based on reporting principles of materiality, quantitative, balance and consistency. This Report also strictly adheres to the *Guidelines for the Standardized Operation of Listed Companies* by the SZSE to disclose the Company's performance as a socially responsible enterprise. We also take into account reporting standards including the *GRI Standards* issued by Global Reporting Initiative (GRI), the United Nations Global Compact, *ISO 26000: 2010 Guidance on Social Responsibility* of the International Organization for Standardization, the *Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities* of the State-owned Assets Supervision and Administration Commission of the State Council, the *Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprise (CASS-CSR3.0) for Electric Utilities* and the *Basic Framework of the Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprise (CASS-CSR4.0)* of Chinese Academy of Social Sciences.



Name Description

For convenience, "**CGN Power Co., Ltd.**" in this Report is also expressed as "**CGN Power**"," **Company**", or "**We**". CGN Power and its subsidiaries are also expressed as "**the Group**". Unless otherwise defined, the terms used in this Report shall have the same meanings as defined in the H-share *2018 Annual Report* published on April 8, 2019.

Reliability Assurance

The contents of this Report are compiled from internal documents, statistical reports and relevant public information. The Company assures that the contents of this Report, for which the Company accepts full responsibility for its truthfulness, accuracy and completeness, are free of any false statement, misleading representations or material omissions.

Access to This Report

This Report is written in simplified Chinese, traditional Chinese and English, and in case of discrepancy between different versions, the simplified Chinese version shall prevail.

The electronic copy of this Report is available for download at the websites of SEHK (www.hkexnews.hk), SZSE (www.szse.cn), CNINFO (www.cninfo.com.cn) and CGN Power (www.cgnp.com.cn).

Feedback

Your precious opinions and suggestions are very important for the continuous improvement of our ESG performance. Please contact IR@cgnpc.com.cn if you have further enquiries or any comments and suggestions regarding this Report.

About Us

>>> Daya Bay Nuclear Base

2019 Major Awards

CGN Power -" China (Global) Top 100 Enterprises Award"

CGN Power - "Special Nomination Award in Governance among H-share and Other Mainland Companies" by Hong Kong Institute of Certified Public Accountants

Ling'ao Nuclear Unit 3 - the world's first unit with 12 WANO indicators all entering the world's excellent level

DNMC - SHE Standardization and international benchmark 8.5 certificate

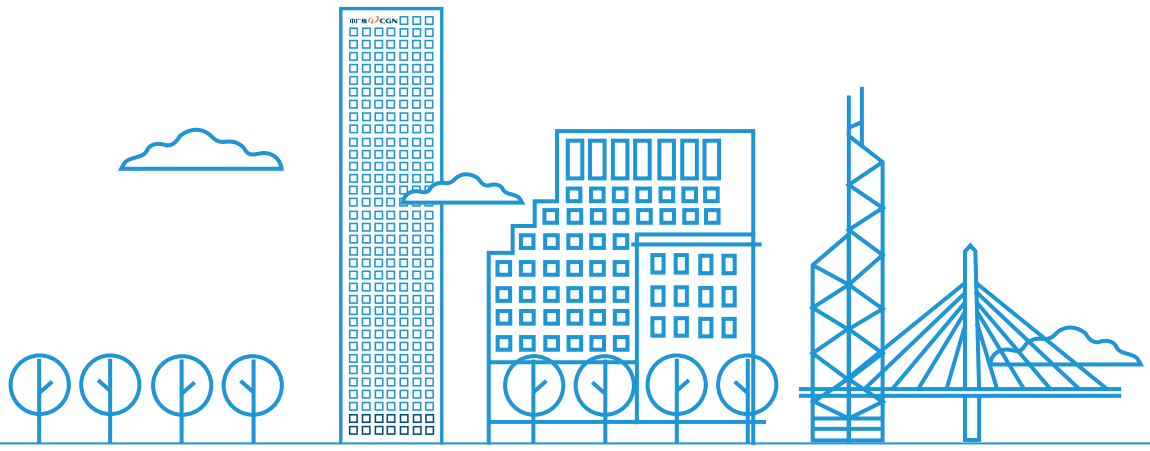
Units 3 and 4 of Hongyanhe Nuclear- "National Quality Engineering Award"

CGN Operations – "National Outstanding Contribution Award for Professional Skill Training"

DNMC – "China Power Industry Excellent Enterprise in Responsible and Innovative Communication"

Ningde Nuclear - "China Power Industry Excellent Enterprise in Transparency Management"

Yangjiang Nuclear– "Donation Star of Guangdong Poverty Alleviation Day"



On-grid Power Generation

178,969.73

GWh

Financial Data

Total Assets

387,975.23

million RMB

Operating Revenue

60,875.18

million RMB

Total Profit

16,555.10

million RMB

Tax Expense

699.87

million RMB

R&D Investment

1,756.10

million RMB

Guarding Nuclear Safety

World Association of Nuclear Operators ("**WANO**") Indicators

76.39 %

entering the world's top ¼ (advanced level)

Nuclear incident of level 2 or above

0

Nuclear engineering construction safety accident rate

0.0088

Protecting the Environment

Power generation equivalent to standard coal consumption reduction about

54.93 million tons

Equivalent to carbon dioxide emission reduction about

150.51 million tons

Equivalent to afforestation about

400,000 hectares

Overview of 2019 Key Data

Uniting Talents

Total number of employees[1]

18,383

Number of fresh graduate employees

211

Average training hours per employee

146 hours

Collaborating for Sustainable Development

New suppliers introduced in 2019

995

Total number of suppliers

6,686

Suppliers' environmental performance review rate

100 %

Creating a Harmonious Community

Accmulative Number of nuclear power plants visitors

800,000

Total investment in poverty alleviation

18.54 RMB million

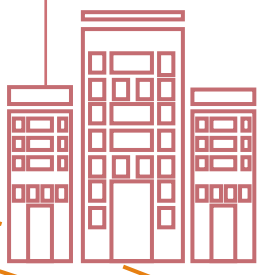
Employee participation in public welfare activities

Over

27,000 person-times

Over

28,131 hours



[1]Not including affiliated companies.

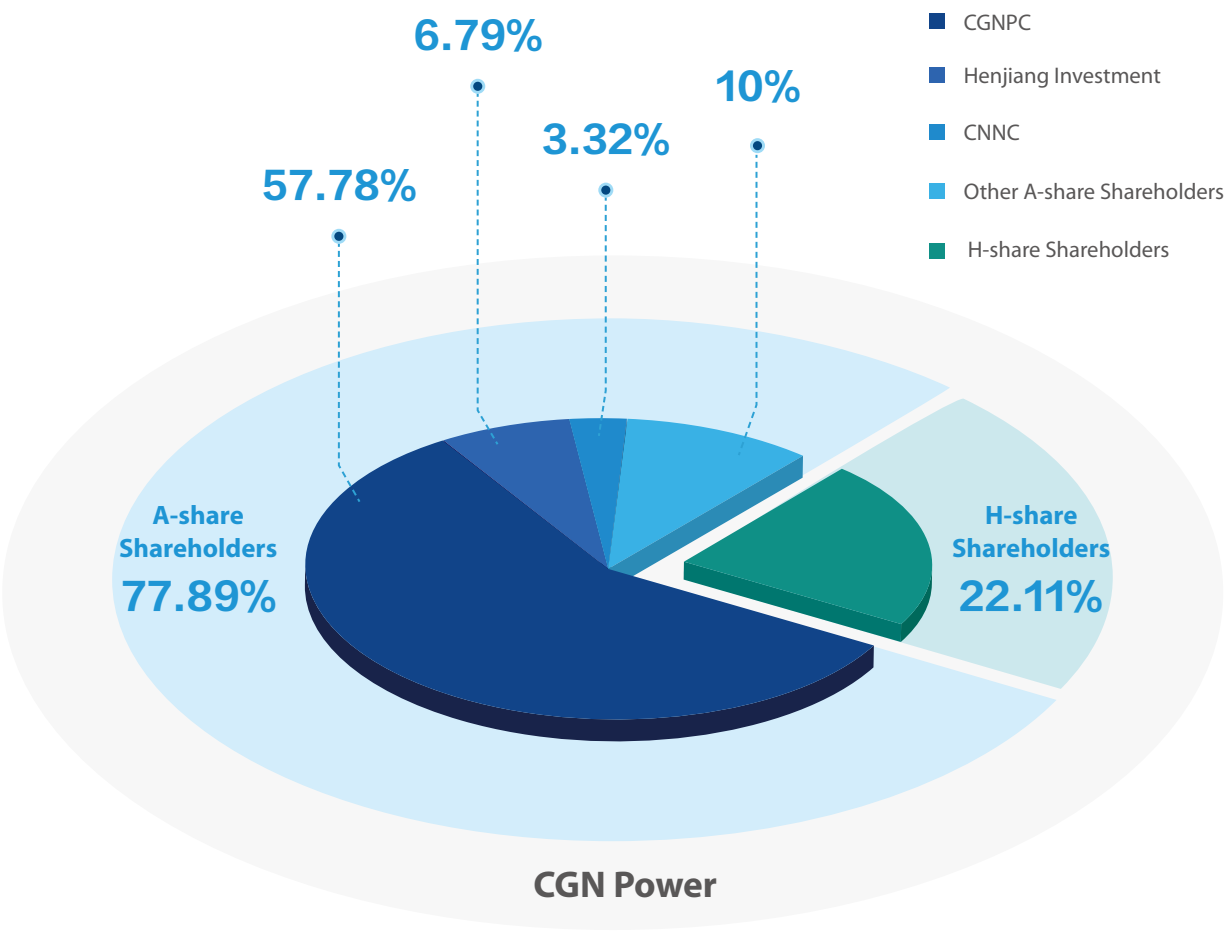
Our Business

CGN Power (SEHK stock code: 1816, SZSE stock code: 003816) was established on March 25, 2014, by its controlling shareholder China General Nuclear Power Corporation ("**CGNPC**"). The main businesses include operation and management of nuclear power plants, nuclear power sales, and management of design and R&D at nuclear power plants. After the Company's H-share were officially listed on the main board of SEHK on December 10, 2014, the Company issued its A-share and listed on SZSE on August 26, 2019, becoming the first nuclear power company dually listed in Mainland China and Hong Kong.

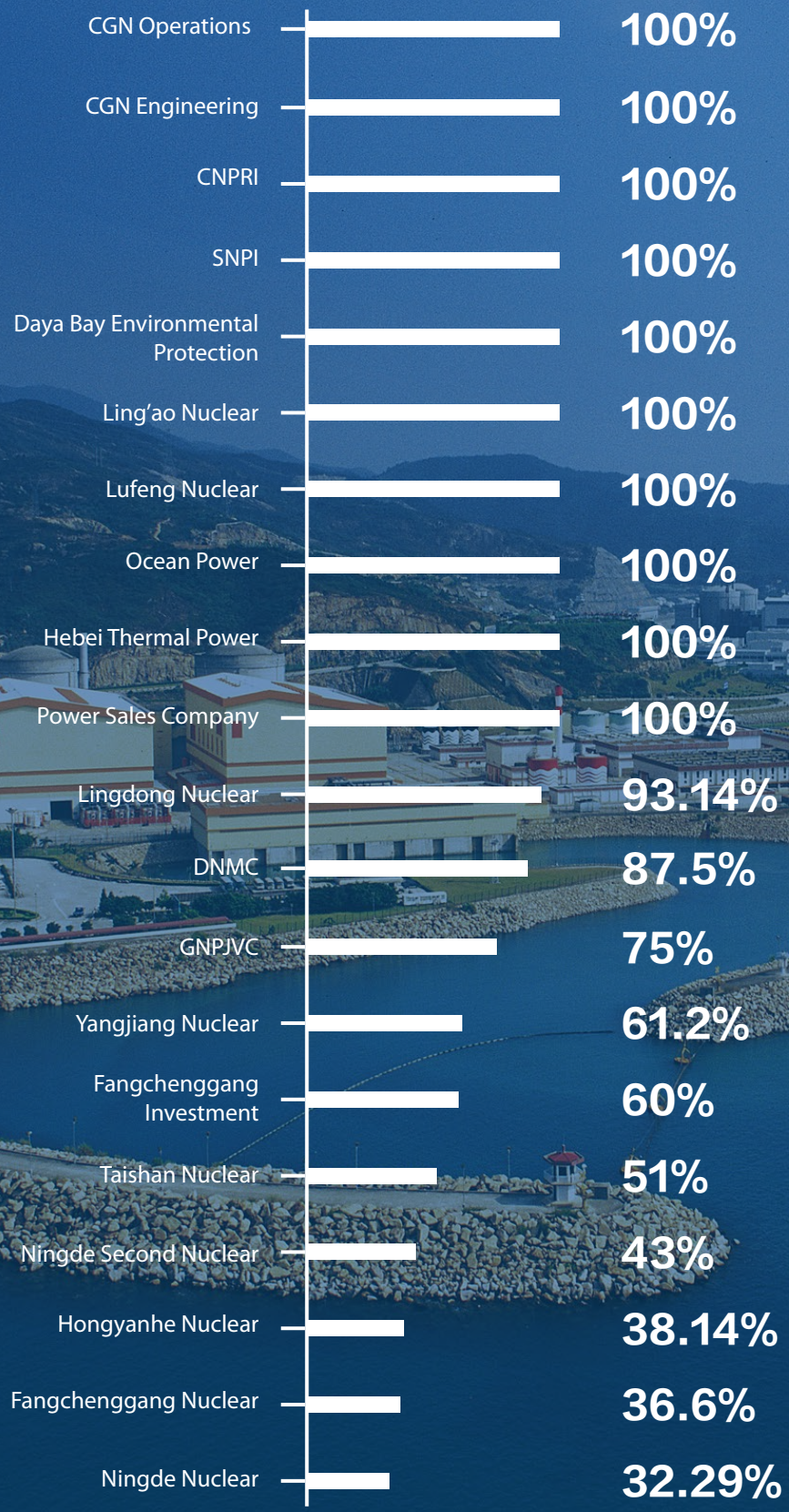
Upon the completion of Daya Bay Nuclear Power Station, the Company has accumulated rich experiences through years of introduction, digestion, assimilation and innovation in nuclear power construction and operation, established capacities in nuclear power maintenance and operation, construction, R&D and personnel training systems in line with international and professional practices and developed the ability to simultaneously and safely construct, operate and manage multiple nuclear power projects in different regions and bases across China.

On the basis of safety, CGN Power continues to adhere to the development of high-efficiency nuclear power. With a safe, economical and reliable power supply, it strives to become a leader in the development and application of new nuclear energy technologies, maintains a leading position in domestic nuclear power generation, and improves its competitiveness in the international nuclear power market.

Equity Structure, Major Subsidiaries and Affiliated Companies



CGN Power's Proportions of Share in Subsidiaries and Affiliated Companies



>>>Daya Bay Nuclear Base, Ling'ao Nuclear Power

Business Distribution

CGN Power is continuously investing in the construction of nuclear power units and contributing to the development of nuclear power energy. As of the end of 2019, our business distribution is shown below:

Number of nuclear power units in operation: **24** units

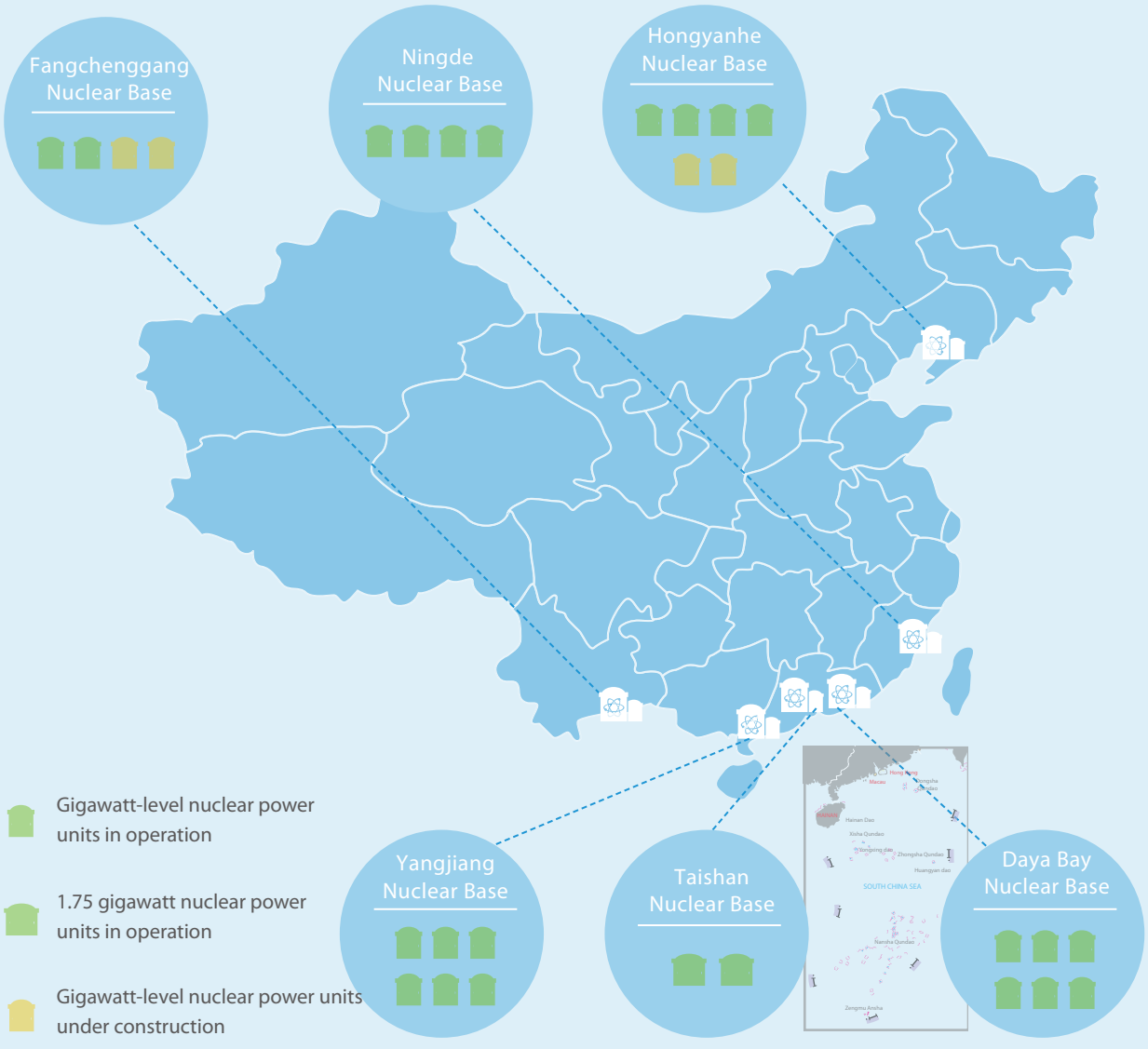
The installed capacity of nuclear power in operation: **27,142** MW

CGN Power's share of installed capacity in China: **55.69** %

Number of nuclear power units under construction: **4** units

The capacity of nuclear power under construction: **4,598** MW

CGN Power's share of capacity under construction in China: **34.94** %



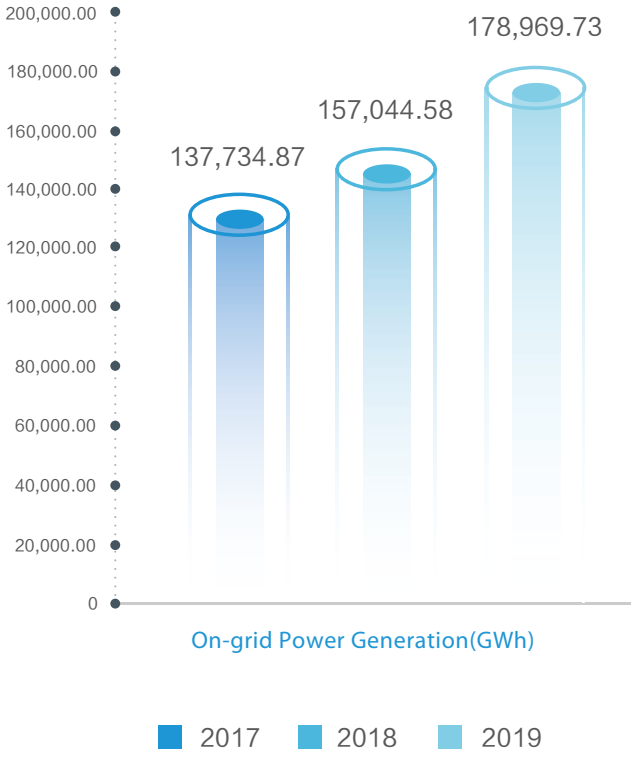
Nuclear Units in Operation and Under Construction

Company	Shareholding	Nuclear power unit	Model	Commercial Operation date	Installed Capacity (MW)
Consolidated Subsidiary Companies					
Ling'ao Nuclear	100%	Ling'ao Unit 1	M310	May 2002	990
		Ling'ao Unit 2	M310	Jan 2003	990
Lingdong Nuclear	93.14%	Lingdong Unit 1	CPR1000	Sep 2010	1,087
		Lingdong Unit 2	CPR1000	Aug 2011	1,087
GNPJVC	75%	Daya Bay Unit 1	M310	Feb 1994	984
		Daya Bay Unit 2	M310	May 1994	984
Yangjiang Nuclear	61.2%	Yangjiang Unit 1	CPR1000	Mar 2014	1,086
		Yangjiang Unit 2	CPR1000	Jun 2015	1,086
		Yangjiang Unit 3	CPR1000	Jan 2016	1,086
		Yangjiang Unit 4	CPR1000	Mar 2017	1,086
		Yangjiang Unit 5	ACPR1000	Jul 2018	1,086
		Yangjiang Unit 6	ACPR1000	Jul 2019	1,086
Taishan Nuclear	51%	Taishan Unit 1	EPR	Dec 2018	1,750
		Taishan Unit 2	EPR	Sep 2019	1,750
Fangchenggang Nuclear	36.6%	Fangchenggang Unit 1	CPR1000	Jan 2016	1,086
		Fangchenggang Unit 2	CPR1000	Oct 2016	1,086
		Fangchenggang Unit 3	HPR1000	Under Construction	1,180
		Fangchenggang Unit 4	HPR1000	Under Construction	1,180
Ningde Nuclear	32.29%	Ningde Unit 1	CPR1000	April 2013	1,089
		Ningde Unit 2	CPR1000	May 2014	1,089
		Ningde Unit 3	CPR1000	June 2015	1,089
		Ningde Unit 4	CPR1000	July 2016	1,089
Affiliated Companies					
Hongyanhe Nuclear	38.14%	Hongyanhe Unit 1	CPR1000	June 2013	1,119
		Hongyanhe Unit 2	CPR1000	May 2014	1,119
		Hongyanhe Unit 3	CPR1000	August 2015	1,119
		Hongyanhe Unit 4	CPR1000	June 2016	1,119
		Hongyanhe Unit 5	ACPR1000	Under Construction	1,119
		Hongyanhe Unit 6	ACPR1000	Under Construction	1,119

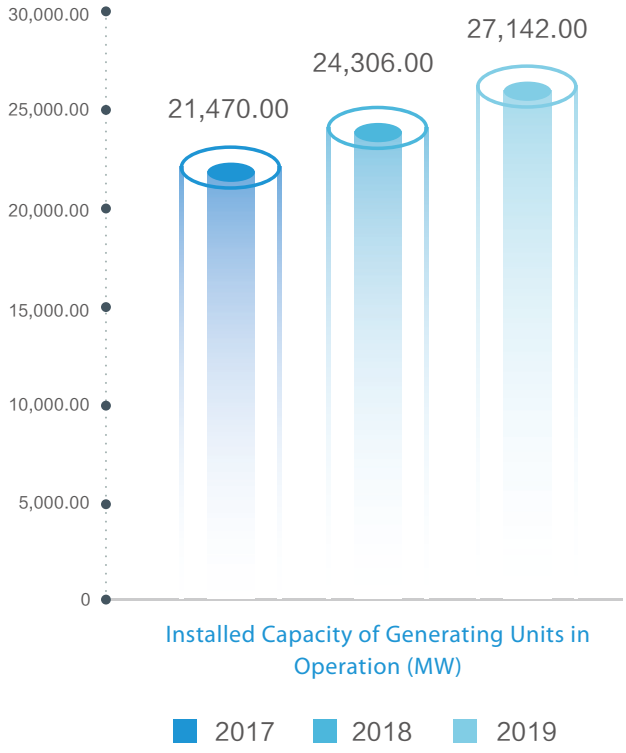
For more details on business distribution, please refer to the section titled "Production Capital" of the H-Share *2019 Annual Report* ("**2019 Annual Report**"), which will be published in April 2020.

Steady Development

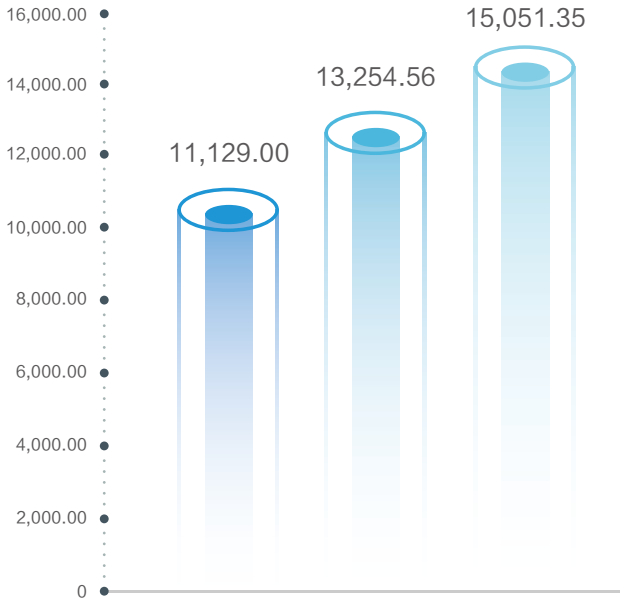
Operation, Environment and Safety Performance



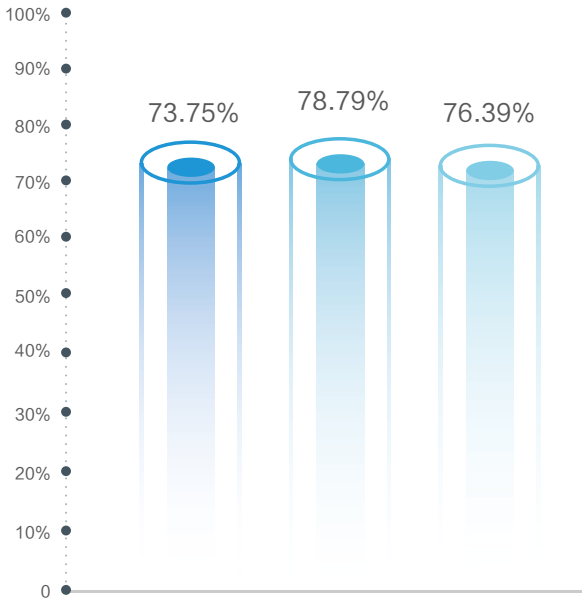
On-grid Power Generation(GWh)



Installed Capacity of Generating Units in Operation (MW)



Nuclear Power Generation Equivalent to Reduction of CO_2 (10,000 tons)

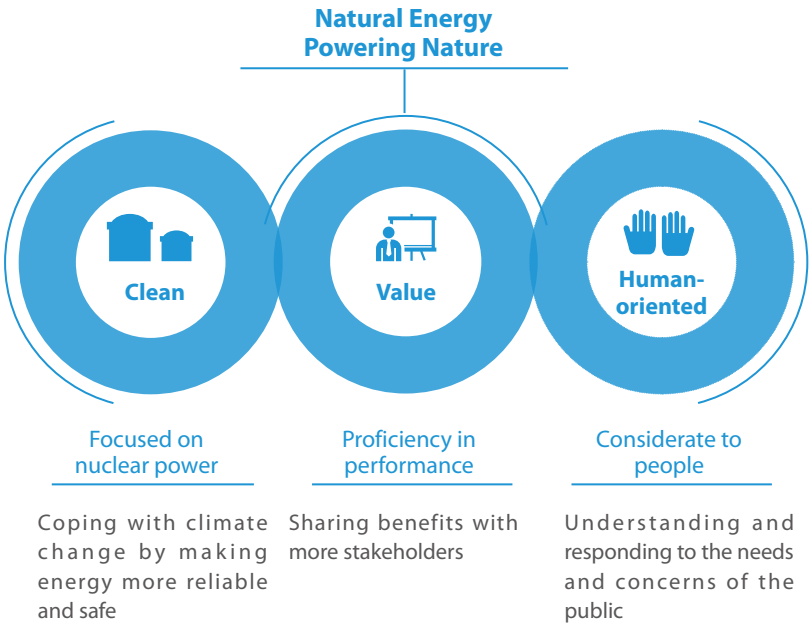


WANO Performance Indicator (Top 1/4 (advanced level) of the world)

Our Corporate Governance

Corporate Philosophy

Guided by the idea of "Natural Energy Powering Nature" and on the basis of safe and steady operation, the Company incorporates sustainable development in the decision-making process and daily operations, actively learns and responds to various stakeholders' expectations and requirements, and proceeds with its social responsibilities systematically under the social responsibility management mode with brand characteristics.



Mission: Developing Clean Energy to Benefit Mankind

Committed to nuclear power generation and power supply and services, based on the principles of "Safety First, Quality Foremost and Pursuit of Excellence", with the core value of "Doing Things Right in One Go", and creating the best values for customers, shareholders, employees and society.

Vision: A World-class Nuclear Power Supplier and Service Provider with International Competitiveness

Facing the domestic and international markets, we pursue a higher level of public trust, responsibility, technology, strength, sustainable development and value to become a well-respected world-class nuclear power company.

Basic Principles: Safety First, Quality Foremost and Pursuit of Excellence

We always adhere to the basic principles of "Safety First, Quality Foremost and Pursuit of Excellence ". All decision-making in production and operation management activities use these principles as the guiding standards and code of conduct.

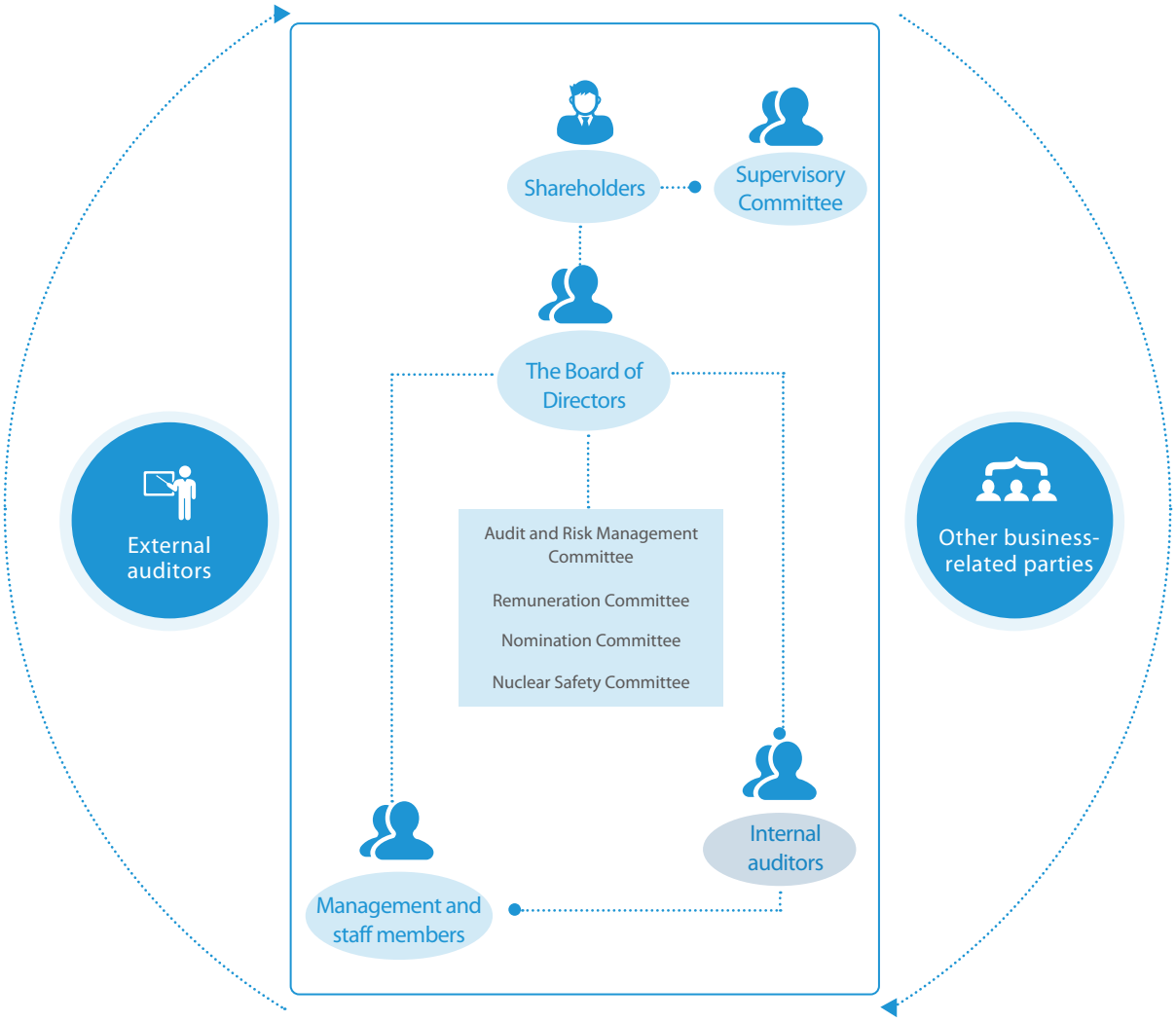
Core Values: Doing Things Right in One Go

Getting things right in one go is the work attitude and goal we should adhere to. Only in this way can we ensure safety, achieve quality, pursue excellence, and realize our mission and vision.

Governance Framework

A well-established corporate governance system is essential for the Company to enhance its corporate value and formulate sustainable development strategies. CGN Power strictly observes the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, and the *Corporate Governance Code* sets out in Appendix 14 of the *Listing Rules* of SEHK to develop a series of corporate governance structures and management systems, including the *Articles of Association*. We endeavor to maintain a high level of corporate governance management, as well as transparency and effectiveness in our operations, to safeguard the rights and interests of shareholders and other stakeholders. After the listing of A-share in this Reporting Period, the Company has also improved its corporate governance systems and revised the governance system documents in accordance with the relevant regulatory requirements of SEHK and ZESE, fulfilling regulatory requirements of both stock exchanges.

The framework of our internal governance mainly consists of the general meeting, the Board of Directors and board committees, the Supervisory Committee, internal auditors as well as management and employees. In addition, external auditors are engaged to conduct independent reviews of the Company's performance in governance; meanwhile, the relationship between the Company and its stakeholders (including customers, partners, media, regulatory bodies, etc.) also reflects our effectiveness in terms of corporate governance.



Board of Directors

The Board of Directors is responsible for continuously improving the Company's governance system, formulating an overall strategic plan, setting performance and management targets, assessing business performance and monitoring management performance to maintain a high standard of governance. The Company has formulated the *Articles of Association* in accordance with relevant regulations such as the *Guidelines for the Standard Operation of Listed Companies* and the *Corporate Governance Code* of SEHK. According to the *Articles of Association*, the Board of Directors established the Audit and Risk Management Committee, the Remuneration Committee and the Nomination Committee. According to the characteristics of the industry, we have also set up the Nuclear Safety Committee. The Board of Directors will refer to the opinions and suggestions of specialized committees on professional matters during decision-makings. The Board of Directors is responsible for shareholders and other business stakeholders. It has formulated the *CGN Power Code of Corporate Governance* in accordance with the *Corporate Governance Code* sets out in Appendix 14 of the *Listing Rules* of SEHK. This code explains how we ensure that the level of corporate governance meeting expectations through a range of systems, procedures and measures.

According to the *Articles of Association*, the Company's Board of Directors consists of nine members. As of the publication date of this Report, there are currently seven board members. Ms. Zhong Huiling resigned as a non-executive Director of the Company on December 12, 2019. Mr. Zhang Shanming resigned as the Chairman and non-executive Director of the Company on March 3, 2020. Directors shall be elected at the general meeting and each serves a three-year-term. Upon expiration, the term is renewable through re-election. Candidates for Directors other than independent non-executive Directors shall be nominated by the Board of Directors, the Supervisory Committee, or shareholders who individually or jointly holding more than 3% of the Company's voting share, and be elected at the general meeting.

The Company is committed to the establishment of a Board of Directors with diverse backgrounds. It has formulated the *Diversity Policy for Board Members* and authorized the Nomination Committee to regularly review the policy, which embodies the Company's efforts in promoting diversity in many aspects. The current Board members have backgrounds in electric utilities, law, accounting and finance with over 20 years of experience in their respective industries.The Company will continue adhere to the consideration of diversification and nominate candidates for the Board of Directors at the general meeting. which will be determined by the general meeting through elections.

During the Reporting Period, the Board of Directors held 10 meetings, deliberated 56 resolutions and reviewed 17 resolutions. The Supervisory Committee held 15 meetings, deliberated 30 resolutions and reviewed 22 resolutions. For more details on corporate governance, please refer to the section titled "Corporate Governance" of the H-Share *2019 Annual Report*.

Board Members[2]

Name	Position
Zhang Shanming	Chairman of the Board, Non-executive Director, Chairman of the Nuclear Safety Committee and Member of the Nomination Committee
Gao Ligang	Executive Director, President, and Member of the Nuclear Safety Committee
Tan Jiansheng	Non-executive Director
Shi Bing	Non-executive Director
Zhang Yong	Non-executive Director, Member of the Audit and Risk Management Committee and Member of the Nuclear Safety Committee
Na Xizhi	Independent non-executive Director, Chairman of the Nomination committee, Member of the Audit and Risk Management Committee, and Member of the Nuclear Safety Committee
Hu Yiguang	Independent non-executive Director, Chairman of the Remuneration Committee, Member of the Nomination Committee
Francis Siu Wai Keung	Independent non-executive Director, Chairman of the Audit and Risk Management Committee, Member of Remuneration Committee

[2] The list of Board members is as of December 31, 2019.

Risk Management

The ever-changing market, regulatory requirements and other factors have brought impacts and potential risks to all aspects of CGN Power's business. Therefore, we have continuously improved our overall risk management system, enhanced our risk management ability and developed a robust risk management culture. We have also been executing risk management throughout all steps of business processes with reference to the IAEA-TECDOC-1209 risk management content and the Committee of Sponsoring Organizations of the Treadway Commission ("**COSO**") risk management framework, covering environmental, social, economic, development prospects and other important factors. With the concept of "Unified Leadership and Hierarchical Management ", CGN Power has established a risk management system, including risk management strategies, risk management organizational function system and risk management information system. Through dynamic identification, regular evaluation, and active management, the Company has adopted a combination of qualitative and quantitative methods to establish a dedicated risk management team. According to the possibility and degree of risk occurrence, the identified risks are analyzed and categorized, and risk management strategies such as reduction, evasion, transfer and control are adopted to transform early warning risks into proactive risk management, consolidating the first line of defense for risk management.

CGN Power prepares a *Comprehensive Risk Management Report* annually to summarize the work of the past year and put forward ideas, goals, plans and major risk assessments for the next year. In addition to the risks related to the Company's business and development, the identified risks also include ESG-related matters such as engineering construction safety, industrial safety and fire risk, and natural disasters-related nuclear safety. The annual *Comprehensive Risk Management Report* is submitted to the Board of Directors for approval after being reviewed by the Audit and Risk Management Committee.

Comprehensively considering various risks such as strategic risk, financial risk, market risk, operational risk, and legal risk, we have also established an effective and reliable internal control system. In accordance with basic specifications and evaluation guidelines, the internal audit department has been authorized to conduct internal audits for the Company's functional departments, businesses centers, subsidiaries and major affiliated companies in aspects of finance, commerce, engineering, production, information systems, and economic responsibilities, and to check and evaluate the effectiveness of the internal control system design and operation of various departments. In 2019, the internal audit department conducted special audits on key management areas such as the Company's internal control, refueling outage, research & development and environmental protection, and conducted special audits on issues of concern raised by the management. While results of internal audits are delivered to senior managers, the annual internal control evaluation report is submitted to the Board of Directors for approval after being reviewed by the Audit and Risk Management Committee.

Regarding the major risks and countermeasures identified by CGN Power in business development during the Reporting Period, please refer to the "Risk Management Report" section in the H-share *2019 Annual Report*.


>>>Daya Bay Nuclear Base

Anti-corruption

In the investigation of corruption cases, we focus on institutional improvement and cultural development, continuously strengthen the deterrent effect and promote the use of electronic information system, reinforcing the implementation system to achieve reduction of suspected corruption violations. The Company strictly observes laws and regulations and other documents including the *Criminal Law of the People's Republic of China*, the *Law for Countering Unfair Competition of the People's Republic of China*, the *Interim Provisions on Banning Commercial Bribery issued by State Administration for Industry and Commerce* as well as judicial interpretations including *Several Suggestions Concerning Applicable Law in Handling Criminal Commercial Bribery Cases* and the *Interpretation for Several Suggestions Concerning the Applicable Law in Handling Criminal Commercial Bribery Cases* issued by the Supreme People's Court and the Supreme People's Procuratorate, etc. The *Employee Disciplinary and Regulatory Violation Management Rules*, the *Discipline Handbook of Listed Companies* and the *Implementation Rules of Eight-point Rules on Austerity* have clearly stipulated the rules for handling employees' violations of regulations and disciplines, which include disciplinary actions, organizational treatment and economic treatment, etc.

CGN Power has established an employee "Integrity File Binder" and the *Gift Reporting System*, which actively monitors and records employees' integrity, violations of rules and disciplines during employment. The *Gift Reporting System* requires employees to declare gifts that they cannot refuse or return for various reasons within 15 days of such event. We also provide anti-corruption trainings for employees and organize a disciplinary education learning event in September every year. In 2019, with the education theme of "remain true to our original aspiration and keep our mission firmly in mind", the Company further strengthened its education on ideals and beliefs through case studies.

The Company continuously improves the investigation procedures for violations of laws and disciplines, strengthens supervision and management, and effectively implements relevant regulations. In order to promote employees' integrity, we have established regulations for supervision and discipline, formulated procedures for handling complaints and reports, and set up reporting channels, allowing employees and related third parties to communicate with the disciplinary investigation department through calls, in-person visits, or writing with confidentiality to report any violations. After receiving whistleblowing reports, the disciplinary investigation department properly proceed with proper recording. If the reported object involves a person directly managed by the Company, the disciplinary investigation department shall handle the matter in accordance with relevant procedures. If the reported object is an employee of a subsidiary, he or she will be referred to the disciplinary investigation department of the subsidiary for handling according to procedures.

During the Reporting Period, there was no corruption, bribery, extortion, fraud and money laundering lawsuit filed against the Company or our employees.

Shareholder Communication

The Company attaches great importance to safeguarding the legitimate rights and interests of shareholders, effectively protects the interests of investors with outstanding performance, standardized information disclosure and diverse communication channels, contributing to asset preservation and appreciation of investors and promoting healthy development of the capital market.

The general meeting holds the rights of decision-making prescribed by the laws and regulations and the *Articles of Association* of the Company. It is entitled to legally exercise its voting rights on major matters such as operation policies and profit distribution of the Company. All general meetings held by the Company have met the requirements of relevant laws and regulations and the Company's *Articles of Association*. In terms of profit distribution, the Company comprehensively considers current-year business performance, future development plans, relevant commitments and other factors, and approves them at shareholder meetings to provide stable dividend returns for the Company's shareholders. During the Reporting Period, we successively held the first extraordinary general meeting of 2019/ the first general meeting of H-share class /the first general meeting of A-share class, and the annual general meeting of 2018, two general meetings in total.

Placing continuous emphasis on the opinions and feedback of shareholders and investors, we maintain ongoing communication with shareholders and investors mainly through roadshows, reverse roadshows, teleconferences and results announcement conferences. We take into account attentively their suggestions or opinions with respect to the Company's development strategy, production and operation, and provide feedback to the Board of Directors, management and related departments through briefings, special reports and other methods, promoting the unity between the Company's development and shareholder value.

During the Reporting Period, the Company held the 2018 annual results announcement conference, the 2018 annual results roadshow, the 2019 interim results roadshow, 6 teleconferences with 560 participants and other activities. In 2019, we received about 135 investors and organized one reverse roadshow, in which we invited 30 investors and analysts to field visits at Taishan Nuclear Power Base.

Since the listing of Company's A-share on August 26, 2019, we have appointed a Board secretary and a securities affairs representative to answer investors' queries in a timely and complete manner by holding online roadshows, participating in online collective reception day events and conducting daily communication through the Interactive Easy platform of SZSE. Through the platform, 285 questions have been answered.

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1 reverse roadshow

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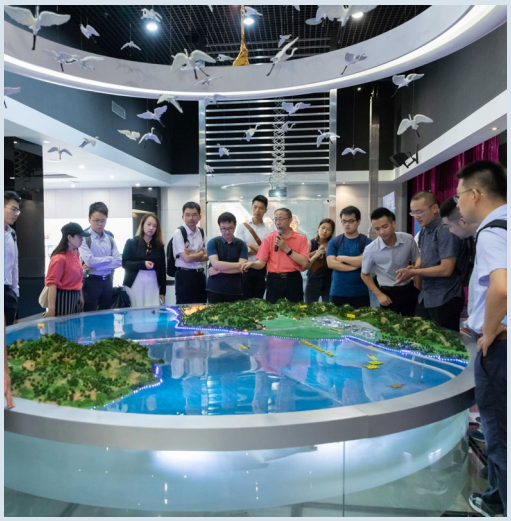
Reverse Roadshow - Taishan Nuclear Power Base

In order to strengthen communication with the capital market, to improve the market's understanding and awareness of the Company and to enhance confidence in the Company's long-term operation and development, the Company held a reverse roadshow at Taishan Nuclear Power Base on July 16, 2019. Investors and analysts from well-known domestic and foreign financial institutions such as Citibank, Morgan Stanley, JP Morgan, UBS Securities, BOC International, China Life Asset Management, and Pacific Asset Management participated in the event. The roadshow introduced the development advantages of the nuclear power industry, production and operation, Taishan Nuclear Power Station operation and European Pressurized Water Reactor ("**EPR**") construction roadmap. Investors and analysts discussed with the Company's management on issues such as the economic efficiency of the Taishan project, value-added tax, dividend policy and approval status of new projects.



A-Share Issuing Online Roadshow

In order to enable investors to better understand the Company's general situation, development prospects and related arrangements for issuance, before the Company's A-share IPO, the Company and the co-lead underwriters held an online roadshow on August 9, 2019 for the initial public offering, answering nearly 200 questions from investors. This effort was recognized and well received by investors.

Online Investor Reception Day

In order to further strengthen interactions and communication with investors, on September 3, 2019, the Company participated in the Online Investor Reception Day Event of Shenzhen listed companies with the theme of "Reform, Innovation, Development, Communication, Mutual Trust and Win-Win". We communicated with investors nation-wide through the online platform in a timely manner and answered nearly 40 questions within one and half hours, covering the company's development prospects, main business, capital expenditures and financing, etc.

Our Responsibilities

Responsible Reporting Disclosure

Since 2015, we have been publishing Environmental, Social and Governance Report annually in accordance with the *Environmental, Social, and Governance Reporting Guide* issued by SEHK. We actively implement ESG management and related actions, comprehensively carry out the implementation and improvement of ESG issues. We have also invited experts to our Company to provide trainings on sustainable development trends of domestic and foreign enterprises, and have undertaken targeted measures to incorporate relevant ESG indictors into our daily operation and management according to characteristics of each department. We have consolidated the social responsibility management system comprising joint actions of staff at three levels, including the promotion of deep involvement at the management level, horizontal coordination between various business departments at the organization level and implementation of ESG indicators monitoring by subordinate units at the execution level.

To further improve ESG management, promote the improvement of related matters and enhance our overall ESG performance, the Company has established an ESG improvement team during the Reporting Period. The responsibilities of this team include conducting internal and external ESG materiality assessments, establishing ESG goals, analyzing goals, improving the ESG data collection system, promoting goal achievements, conducting peer benchmarking, improving ESG management and implementing information disclosure on ESG matters.

Three-Level Management System

Continuous and Responsible Communication

The governmentand and regulatory authorities, shareholders, customers, suppliers, employees, media, community residents and the public are all major stakeholders of CGN Power. Communicating with stakeholders and listening to their expectations and needs is an integral part of the Company's sustainable development strategy. We have established a stakeholder communication mechanism to communicate with stakeholders through different channels regularly and continuously, to address the expectations and concerns of stakeholders and promote the healthy development of the Company. In addition to daily communication, we also invited stakeholders to participate in a materiality assessment survey during the Reporting Period to better understand their expectations of the Company and effectively integrated them into daily operations and information disclosure.

Stakeholder	Expectations and Concerns	Methods of Communication and Response
Government and Regulatory Authorities	– Ensure nuclear safety – Optimization of energy structure – Legal compliance and tax payment – Energy conservation and emission reduction	– Execution of national energy policies – Improvement in corporate governance – Supervisory review – Regular reporting
Shareholders and Investors	– Constant and steady return – Transparent information disclosure – Protection of shareholder's rights – Enhancement of communication	– Timely disclosure of information – Regular reporting of operating information – Improvement in daily management – Various communications activities from time to time
Customers	– Stable supply – Quality management and service guarantee	– Effective communication – Active cooperation for power grid dispatching
Suppliers and Partners	– Commitment fulfilment – Openness, fairness and impartiality in procurement – Experience sharing	– Strategic cooperation – Public disclosure of procurement information – Regular communication activities
Employees	– Competitive remuneration package – Employee health and safety – Fair promotion and development – Care for employees	– Building a healthy working environment – Establishing fair promotion channels – Strengthening training for employees – Care for distressed employees
Media	– Transparent information disclosure – Enhancement of communication	– Regular press conferences – Interview arrangement – Timely disclosure of public information
Community Residents	– Environmental protection in the community – Nuclear power production and safety – Promote community development	– Community communication meetings – Enhancement of environmental monitoring and protection – Participation in community construction
General Public	– Support for charity – Popularization of nuclear power science	– Participation in targeted poverty alleviation – Promotion of employment – Education and promotion of nuclear power

Materiality Assessment

Material issues are those that pose significant economic, environmental and social impacts resulting from the Company's business operations, and expectations from stakeholders.

CGN Power continuously improves the process of identifying and determining ESG issues, fully discloses material ESG issues, responds to the concerns of various stakeholders regarding our fulfillment of social responsibility, and strengthens the management and fulfillment of material ESG issues in daily operations. We review and identify relevant ESG issues based on results of the 2018 materiality assessment, with reference to the disclosure guidelines of SEHK, other sustainability reporting standards and peer benchmarking analysis. Subsequently, the Company evaluates and selects material ESG issues for the Reporting Period by fully considering the nature of the Company's business and development strategy, collecting stakeholder opinions through questionnaires and analyzing peer development trends. As nuclear power safety is the most vital issue to the Company, it is not included in the scope of the materiality assessment questionnaire. In the evaluation process, we not only consider the impact of issues on the Company and stakeholders, but also take into consideration of their impacts on the economy, environment and society. The results of analysis are then reviewed by the Company's senior management.

Identify potential materiality issues	Ranking potential materiality issues	Conclusion and feedback
Through background research of internal management policy, media analysis, peers benchmarking and analysis of other related documents, identify the potential materiality issues which can reflect the influence of CGN Power on the environment and society, and the decisions and evaluations of stakeholders.	Establish a stakeholder communication plan and conduct a questionnaire survey to thoroughly understand the most concerned issues of stakeholders. Review potential material issues and formulate a material issue matrix by ranking them.	Senior management review the material issues selected by stakeholders and confirm their impacts on CGN Power and their ESG performance.

>>> Daya Bay Nuclear Base

We categorize potentially material issues by environmental, social, governance, and employee categories, and identify the following important issues after analyzing the survey results:

Radiative Material Management

Pollutant Emission Management

Ecosystem Protection

Adaptation to Extreme Climates

Environment

Social

Product Liability

Open and Transparent Information Disclosure

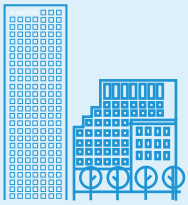
Supply Chain Management

Industrial Leadership

Corporate Wealth and Income

Intellectual Property Protection

Governance



Corporate Governance and Risk Management

Promotion of National Nuclear Energy Development

Investment Project Risk Management

Strengthen Independent Innovation

Employee

Employee Compensation and Welfare

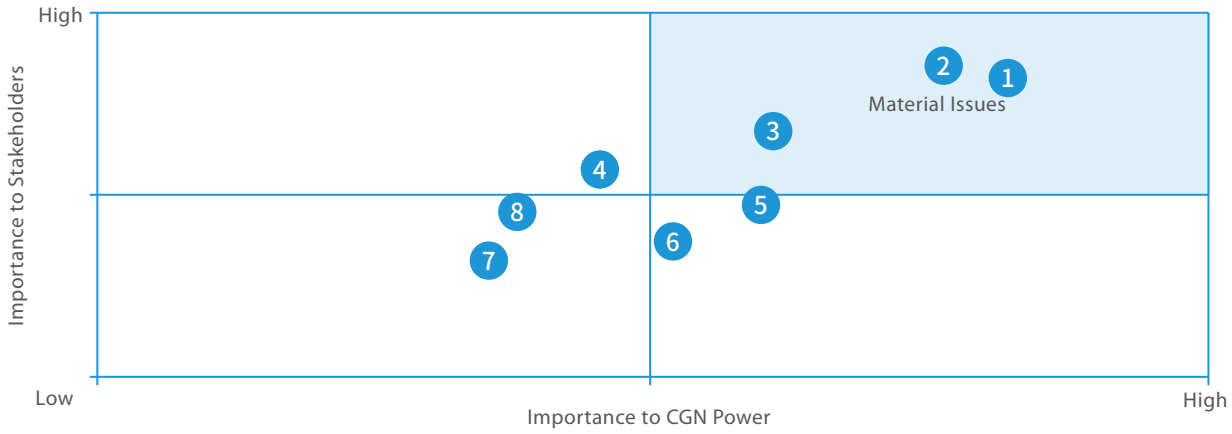
Occupational Health and Safety

Employee Training and Development

Employee Incentive Mechanism

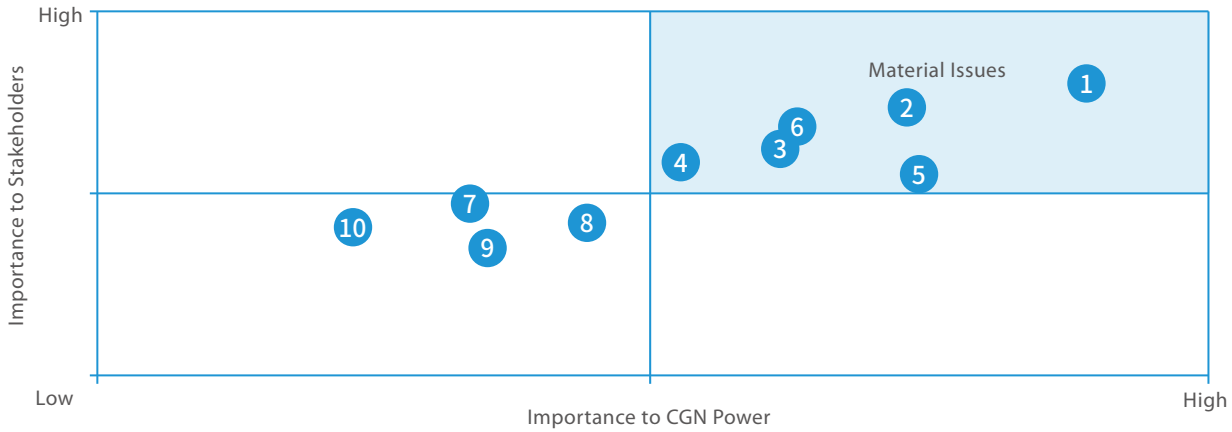
Protection of Labor Rights and Recruitment

Materiality Assessment - Environmental



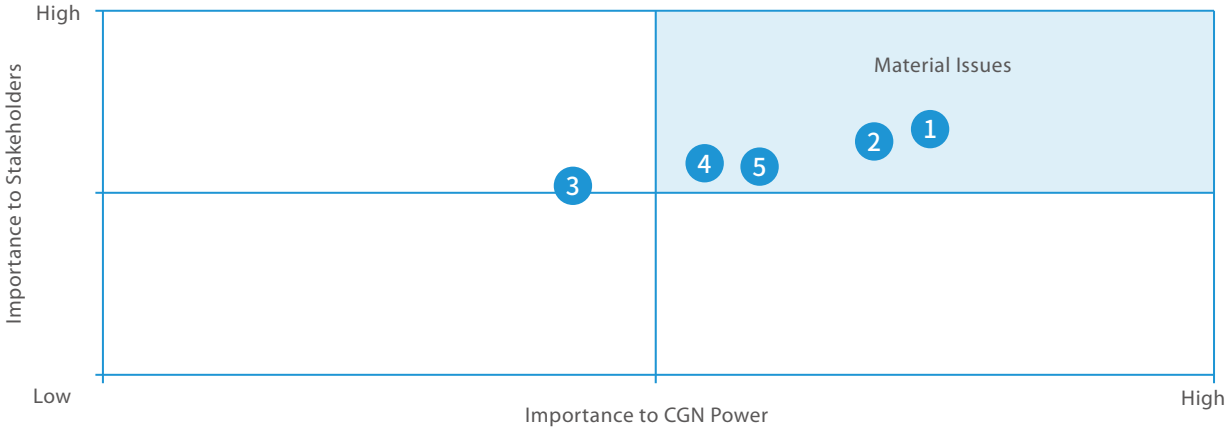
1. Radiative Material Management
2. Pollutant Emission Management
3. Ecosystem Protection
4. Resources Utilization
5. Adaptation to Extreme Climates
6. Formulation and Implementation of Corporate Internal Environmental Policies
7. Proactively Assume Environmental Responsibilities
8. Green and Low-carbon Investment Opportunities

Materiality Assessment - Social



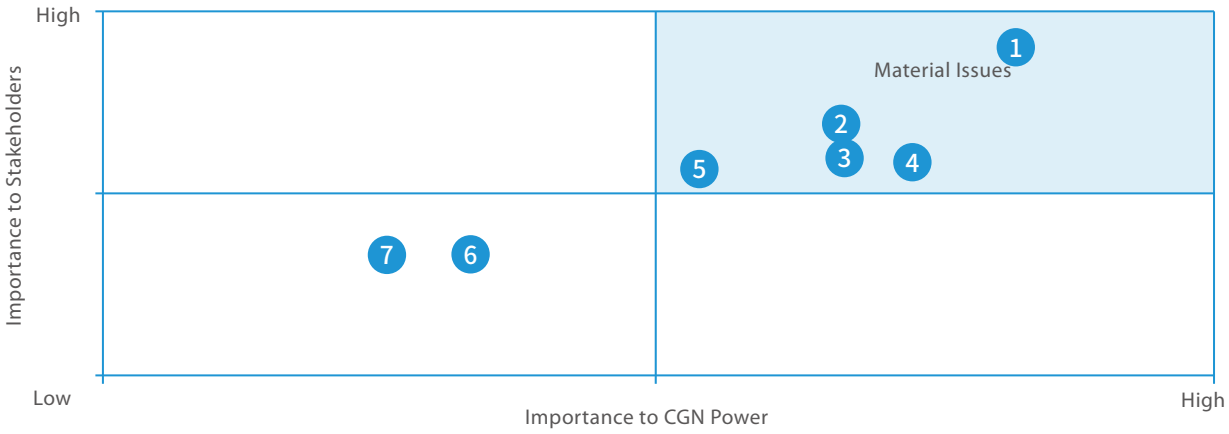
1. Product Liability
2. Open and Transparent Information Disclosure
3. Industrial Leadership
4. Intellectual Property Protection
5. Corporate Wealth and Income
6. Supply Chain Management
7. Support the Community Economy
8. Public and Media Opinions
9. International Exchanges and Cooperation
10. Community Contribution

Materiality Assessment - Governance



1. Corporate Governance and Risk Management
2. Promotion of National Nuclear Energy Development
3. Anti-corruption
4. Strengthen Independent Innovation
5. Investment Project Risk Management

Materiality Assessment - Employee



1. Employee Compensation and Welfare
2. Occupational Health and Safety
3. Employee Training and Development
4. Employee Incentive Mechanism
5. Protection of Labor Rights and Recruitment
6. Diversity and Gender Equality
7. Labor Standards

Guarding Nuclear Power Safety

The *Nuclear Power Industry Chain Safety and Quality Convention* was first officially released at the China Nuclear Energy Safety and 2019 Nuclear Power Industry Chain Summit Forum Achievement Conference. It was the first safety and quality self-regulating convention in China's nuclear power industry. It aims to regard safety as the lifeline and promote high-quality industry development.

CGN Power always considers nuclear power safety as its first responsibility. From the design, construction and operation phases of nuclear power plants ("nuclear power plants" or "**NPPs**"), we always adhere to the principles of " nuclear safety is paramount" and "safety first, quality foremost, pursuit of excellence", maintaining the stable operation of nuclear power plants with advanced technology and scientific management.

>>> Refueling Outage Related Works

> **The overall goal of nuclear safety:**
>
> To establish and maintain an effective defense system at nuclear power plants to protect people, society and the environment from radiological hazards.

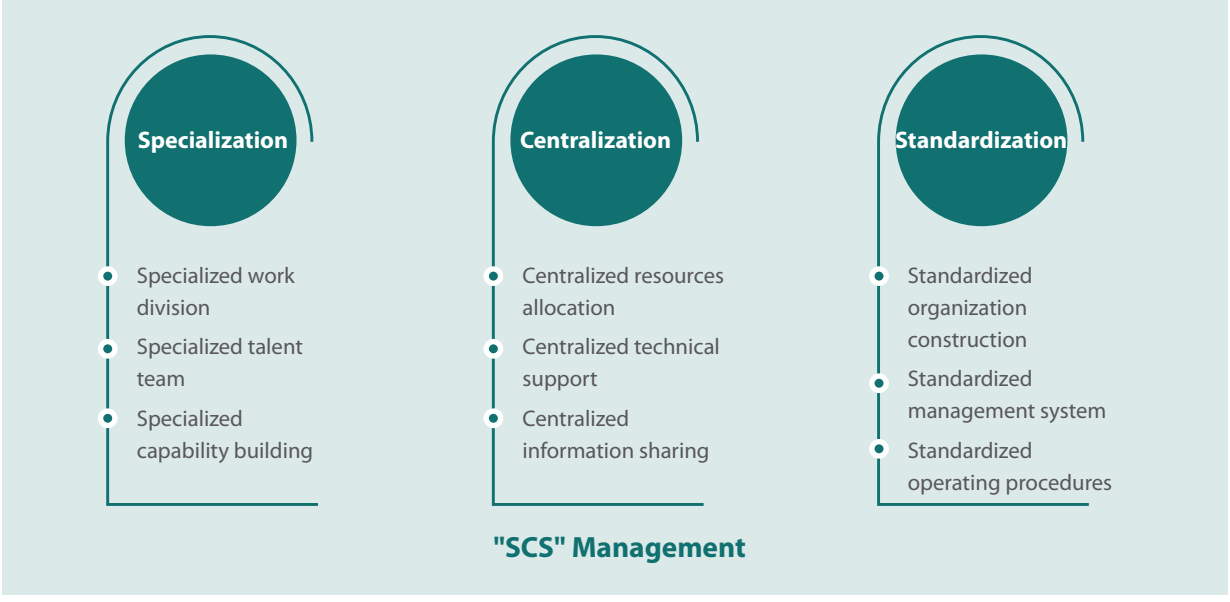
China's nuclear safety industry has entered a new era of high-quality and high-level development, and relevant laws on nuclear power safety operation have also been gradually improved. With all of our nuclear power plants located in China, CGN Power's safety standards strictly comply with the national nuclear safety laws and regulations, such as the *Nuclear Safety Law of the People's Republic of China* ("***Nuclear Safety Law***"), the *Regulations on Civil Nuclear Facility Safety Supervision and Administration of the People's Republic of China*, the *Regulations of Site Selection for Nuclear Power Plants*, the *Regulations on the Safety of Site Selection for Nuclear Power Plants*, the *Safety Requirements for Nuclear Power Station Operation* and the *Electric Power Law of the People's Republic of China*, etc. We have also implemented the *CPC Central Committee and State Council on Promoting Reform and Development of Work Safety* and other requirements of regulatory authorities on occupational safety. In 2019, China has issued several administrative regulations and rules related to the nuclear power industry. From its headquarter to nuclear power plants and subsidiaries, CGN Power has actively carried out nuclear safety regulation learning activities for new administrative regulations and rules, formulated corresponding publicity and implementation work plans, and strictly implemented relevant legal requirements. For details regarding laws and regulations, please refer to the subsection titled "Laws and Regulations of the Nuclear Power Industry" in "Section 6 Business and Technology" of the A-share prospectus issued by the Company on August 9, 2019.

Strengthening Safety Management

Nuclear Power Safety System

A robust nuclear power safety system is the foundation for ensuring nuclear power safety. Based on the principle of defense-in-depth, we set up multiple barriers for prevention, monitoring and corrective actions to cope with possible failures of equipment, personnel and organizations. All nuclear safety-related management systems and procedures have considered the establishment of a defense-in-depth barrier and its effectiveness. With the objective of "zero injury, zero defect, zero violation", we strive to achieve safe production through safety management and supervision of nuclear power plants.

In order to maintain the stable operation of nuclear power plants, we further promote the "Specialization, Centralization, Standardization" ("**SCS**") Management.



"SCS" Management

Safety Culture Cultivation

The cultivation of safety culture is a key factor in ensuring nuclear safety and requires the participation of all employees from the Company. In order to enhance safety culture, we carry out nuclear safety cultural campaigns, publicize and implement top-down nuclear safety culture, and integrate a well-established nuclear safety culture into all aspects of production and management. CGN Power has issued the *Guiding Plan for Nuclear Safety Culture Cultivation* during the Reporting Period, which stipulates the basic principles of nuclear safety culture, and fosters and practices the principles and requirements of nuclear safety culture. To advance the cultivation of nuclear safety culture in an institutionalized manner, we also actively obtain successful experiences from the cultivation of nuclear safety culture internationally, constantly summarize internal good practices and continuously improve the level of nuclear power safety.

In 2019, the number of management of the Company on-site visiting reached

17.88

times per person per month

Through planning and implementing various types of nuclear safety cultural activities including awareness enhancement, capacity building, cultural evaluation and daily management, we continuously improve the nuclear safety awareness and capabilities of all employees. The management takes the lead in demonstrating and implementing the safety management responsibilities and ensures all employees have a "sense of awe" for safety. The safety culture education is conducted by general managers and department heads of each nuclear power plant on domestic and international typical events of the industry, for which they hold safety and quality meetings, conduct regular site inspections and implement safety culture assessments. "Leaders On-site" is the safety culture promotion activity of CGN Power for many years. The management team visits all nuclear power plants regularly to conduct on-site inspections, supervises personnel operations and promotes safety culture.

Su Shengbing Visited Fangchenggang Nuclear to Inspect Production Safety

Global environmental changes have brought great challenges to the safe and stable operation of NPPs. Fangchenggang Nuclear attaches great importance to prevent major risks such as coolant and super typhoons to ensure the safe and stable operation of units. On April 12, 2019, Su Shengbing, the Company's Vice President visited Fangchenggang Nuclear to conduct an inspection and received reports on production safety and marketing.

Su Shengbing went to the cooling water intake of Fangchenggang Nuclear Phase I project and the conventional island plant of Unit 2 to inquire details about the technical transformation of the coolant and the prevention of super typhoons, and affirmed the efforts made by Fangchenggang Nuclear on production safety.

Gao Ligang Visited Ningde Nuclear for Inspection

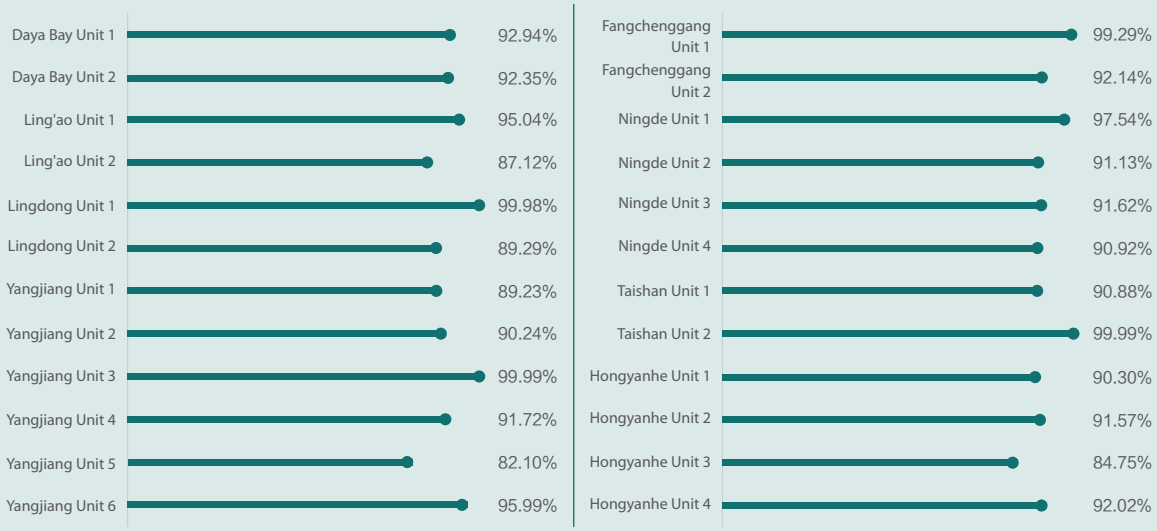
On September 17, 2019, Gao Ligang, the Company's President learnt about unit operation in the main control room of Unit 1at Ningde Nuclear Power Base, and asked the operator to continuously summarize the good practices and improve the technical level. He also visited the steam turbine plant of Unit 2 to inspect the safety control of the ongoing refueling outage.

Gao Ligang pointed out that during this inspection he observed many good practices and innovations of Ningde Nuclear, and he looked forward to continuous development and improvement in the future.

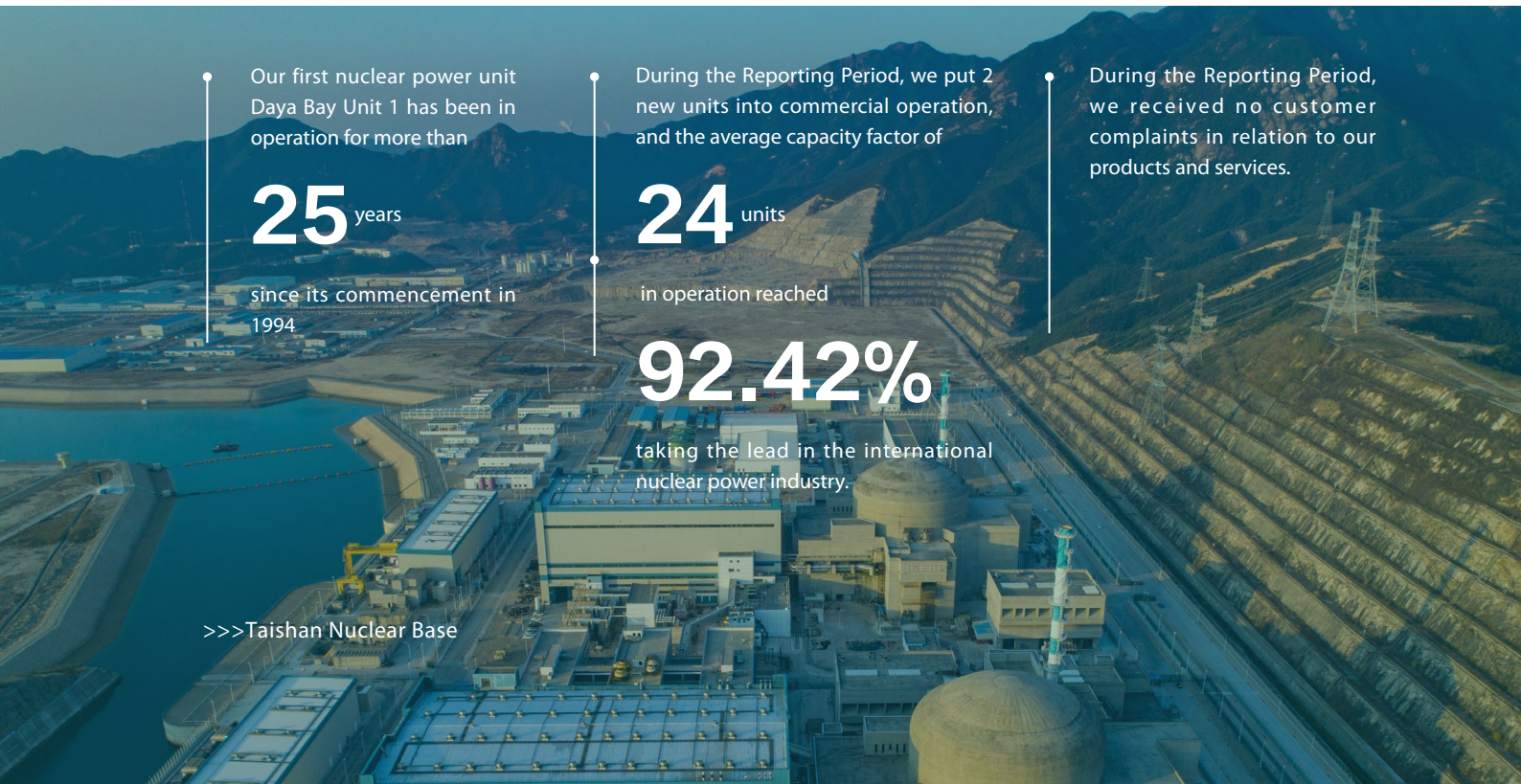
Outstanding Safety Performance

2019 CGN Power Unit Capacity Factor

"**Unit Capacity Factor**" is widely recognized by the international nuclear power industry as the best indicator for nuclear power operation performance and nuclear power safety management. It is mainly used to measure the availability of nuclear power units and serves as an important indicator that reflects the electricity generation capacity of nuclear power units.



In the competition of the "Unit Capacity Factor" award, Ling'ao Unit 1 at Daya Bay Nuclear Power Base has been continuously operating safely for more than 4,900 days (excluding days for refueling outages) as of December 31, 2019, ranking No. 1 world-wide among reactors of the same type.



Our first nuclear power unit Daya Bay Unit 1 has been in operation for more than

25 years

since its commencement in 1994

During the Reporting Period, we put 2 new units into commercial operation, and the average capacity factor of

24 units

in operation reached

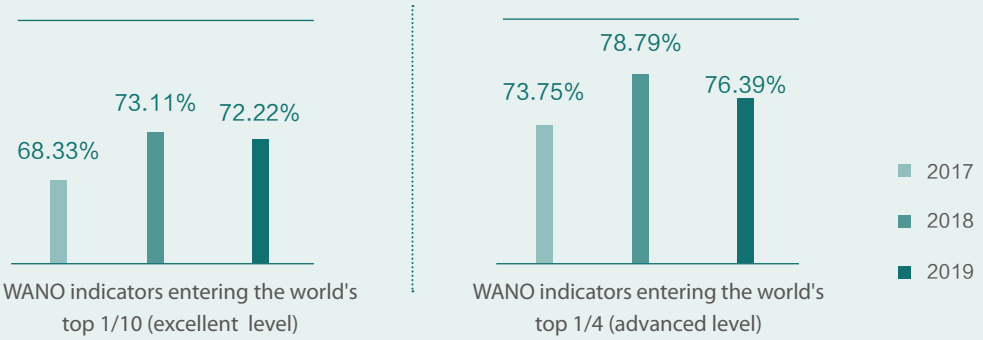
92.42%

taking the lead in the international nuclear power industry.

During the Reporting Period, we received no customer complaints in relation to our products and services.

>>>Taishan Nuclear Base

CGN Power Annual Comparisons in WANO Indicators (2017-2019)



The WANO indicator is an important international statistical indicator for nuclear power operation performance and an important reference for evaluating the safety and reliability of nuclear power project operations. The organization formulates internationally accepted performance indicators through its members for unified management and coordination, which is conducive to strengthening the development of nuclear power technology, enhancing experience and accident information exchange, and continuously improving the safety and reliability of nuclear power plants worldwide. The dozens of assessment indicators directly reflect the nuclear power unit's operation safety level. In 2019, 12 WANO indicators of Ling'ao Unit 3 all entered into the world's advanced level, becoming the first CGN Power's operating units with all WANO indicators reaching the world's advanced level.

Daya Bay Nuclear Power Base Won Its 11th Consecutive EDF Safety Challenge

On March 28, 2019, DNMC won the 1st place in the " Capability Factor" at the 2018 Electricite De France ("**EDF**") Safety Challenge Competition ceremony held in Paris, France, claiming the championship for the 11th consecutive years. The competition was first started in 1999, and it is one of the most renowned competitions in the nuclear power industry worldwide. It evaluates the overall safety performance of nuclear power plants and best operators in the past year. More than 60 nuclear power plants of the same type from France, China, Germany, South Africa and other countries have participated in the competition. From 1999 to December 2019, Daya Bay Nuclear Power Base has accumulatively claimed 39 championships in the challenges.

During the Reporting Period, the Company continued to maintain an outstanding occupational health and safety performance with improved nuclear safety performance, achieving "zero deaths and zero fire accidents".

2017-2019 Nuclear Power Operation

Nuclear Power Station	Industrial Safety Accident Rate of Employees per 200,000 Man Hours[3]			Industrial Safety Accident Rate of Contractors per 200,000 Man Hours[4]		
	2017	2018	2019	2017	2018	2019
Daya Bay Nuclear Power Station	0	0	0	0	0	0
Ling'ao Nuclear Power Station	0	0	0	0	0	0
Lingdong Nuclear Power Station	0	0	0	0	0	0
Yangjiang Nuclear Power Station	0	0	0	0	0	0
Fangchenggang Nuclear Power Station	0	0	0	0	0	0
Ningde Nuclear Power Station	0	0	0	0	0	0.0389
Hongyanhe Nuclear Power Station	0	0	0	0	0	0
Taishan Nuclear Power Station	N/A	0	0	N/A	0	0

2014-2019 Nuclear Engineering Construction Industrial Safety Accident Rate per 200,000 Man Hours[5]

Nuclear Engineering Construction Industrial Safety Accident Rate per 200,000 working hours is

0.0088

According to the "International Nuclear and Radiological Event Scale (INES)" implemented by the International Atomic Energy Agency ("**IAEA**") , as of December 31, 2019, no operational events at level 2 or above have occurred at our nuclear power plants[6].

[3]Industrial Safety Accident Rate of Employees per 200,000 Man Hours = 200,000× (number of employees accidents per year / total man hour for employees per year)

[4]Industrial Safety Accident Rate of Contractors per 200,000 Man Hours = 200,000 × (number of contractors accidents per year / total man hour for contractors per year)

[5]Industrial Safety Accident Rate per 200,000 Man Hours= 200,000× (number of accidents for both employees and contractors per year / total man hour of both employees and contractors per year)

[6]According to the INES, nuclear incidents are classified into seven levels. Level 1 or above are referred to as "incidents" or "accidents", while events without safety significance are classified as " Level 0".

Operational Safety and Stability

We put safety first in nuclear power plants' operations and adhere to the basic job requirements of "always act based on rules, always be held responsible, always supervise, always keep documentation". We strictly implement operating procedures, maintain equipment in a regular and orderly manner, improve the nuclear emergency response system, comprehensively analyze and provide incident experience feedback to enhance safety performance and ensure the safe and stable operation of nuclear power plants.

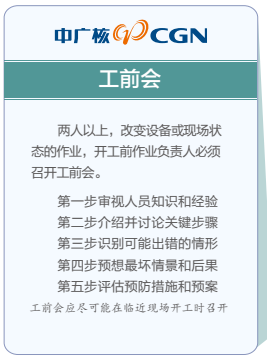
Stringent Operating Procedures

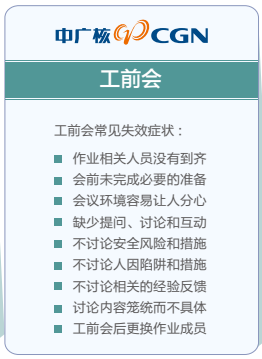
Human error is a vital factor that results in safety issues. In order to further regulate personnel operations, we have continuously enhanced professional skill trainings for employees and implemented the accountability system, thereby ensuring that each operation is conducted in accordance with procedures.

In order to raise awareness of frontline staff to reduce human error, we require all frontline staff to carry the human error prevention cards during work to make full use of the cards as a reminder and regulation. In the meantime, we have also compiled and published the *Management Procedures of Human Error Prevention Training for Contractors*, in which the training requirements of contractors on the human error prevention cards are specified. We continuously enhance the application of the cards by developing training courses such as "Prevention from Going to Wrong Units" and "Prevention of Mistaken Operation".

Pre-job Briefing

Pre-job briefing is a job preparation briefing to define the purpose and procedures before field operation or change of equipment status and certain other important project activities. For an operation to be completed by over two persons, the operation supervisor must hold a pre-job briefing as close as possible to the start of field operations.



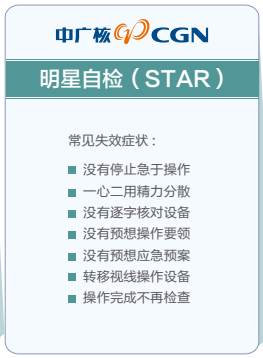


Use of Procedures

Use of procedures is essential for NPPs operations. There are four steps to ensure that every work can be effectively carried out in accordance with the procedures: one is to prepare procedures: ensure that the procedures to be executed are in line with the task; the second is to understand the procedures: ensure the executor can fully and accurately understand the contents and requirements of the procedures; third, ensuring strict implementation of procedures: operate in strict accordance with the requirements and contents of the procedures; fourth, feedback the implementation results: provide timely implementation feedback and any abnormal circumstances.

STAR

The ***"STAR"*** is a primary human error prevention tool before the execution of major operational activities. The STAR, short for STOP, THINK, ACT and REVIEW. STOP requires to stop and focus on the job on hand. THINK about what to do, how to plan and how to cope with an accident. ACT is to complete the job as planned. REVIEW the results against our expectations. Essentially speaking, the STAR is to stop in case of uncertainties or inconsistency with expectations.



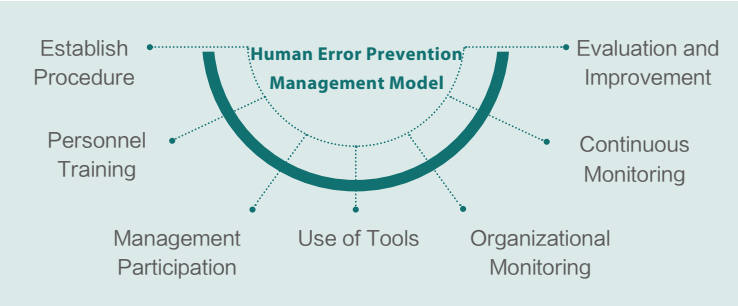
Supervised Operation

Operations that may result in serious consequences in case of errors must be supervised. The operator, supervisor and supervision point must be clarified first. Before the operation, the operator shall describe the operational instructions and point at the equipment. The operator shall not operate before the supervisor confirms the equipment being pointed to verify the instructions and give consent.

Three-stage Communication

An effective communication approach implemented in the NPPs, the three-stage communication requires the deliverer to state the receiver's name clearly and accurately followed by the instructions or information to the receiver; the receiver explains and repeats the information received to the deliverer; the deliverer confirms the completeness of the repeated information and actions can be taken upon provision of the correct information. The key to three-stage communication is to clarify doubts in a timely manner.

In order to further improve human error management, we have established a human error prevention management model, carried out special rectification for human error, improved the mechanism for admission, selection, training and assessment for operating personnel, organized job trainings for production operation personnel, and strengthened their operational skills to reduce the safety impacts of human error.



Human Error Prevention Communication Meeting

On August 20, 2019, the "Human Error Prevention Communication Meeting" organized by CGN Power was held at the Daya Bay Nuclear Base Skill Center. John Munro, the Chief Nuclear Safety Officer of EDF and Dr. David Birkbeck, an expert on human error prevention, shared practical experiences of EDF on human error prevention management system, incident management, human error prevention tool cards and trainings. They also discussed human error prevention practices and reflections of refueling outage in the context of CGN Operations and DNMC, as well as human error prevention management system and good technical practices in the context of DNMC. This exchange achieved the expected goal of "sharing experience, opening up ideas, identifying gaps and benchmarking", and improved participants' understanding of the human error prevention management system and human error theory, laying a solid foundation for further deepening this cooperative relationship.

Emergency Safety Management

Continuously strengthening emergency management, improving the emergency response system and enhancing emergency preparedness have been the focuses of our nuclear power safety work. CGN Power's nuclear emergency response system strictly complies with the *Emergency Response Law of the People's Republic of China* and the *Regulations on Nuclear Power Plant Nuclear Accident Emergency Management*, and combines the characteristics of multi-platforms technical support and multi-bases operation to establish a comprehensive nuclear accident emergency response system. It provides material, personnel, equipment and technical support for emergency incidents, further enhancing the emergency response capabilities of nuclear power plants and minimizing the impacts of emergency accidents on the public and environment.

All of our nuclear power plants have established a comprehensive emergency preparedness system, and emergency drills of different scales are organized in a timely manner. In order to effectively provide response in case of emergency, we have set up an emergency command center, held regular emergency exercises and conducted comprehensive exercises with local authorities to improve the capabilities to respond to emergencies, ensuring the safety of people surrounding the nuclear power plants.

2019 Daya Bay Nuclear Power Base Comprehensive Emergency Drill

On September 17, 2019, DNMC conducted the 2019 on-site comprehensive emergency drill. The drill design team used logical scenario designs and combined incidents with emergency events such as heavy rain, earthquakes and hazardous chemical fires. During the drill, the emergency response teams coordinated responses smoothly and orderly, comprehensively enhancing the emergency organization's response capabilities.

Integrated Emergency Drill

On July 16, 2019, the Company's nuclear emergency team conducted the annual integrated emergency drill jointly with Fangchenggang Nuclear Power Base. The drill simulated the failure of the component cooling system ("**RRI**") and other overlapping failures with the power plant in emergency standby mode. During the drill, the Company's nuclear emergency command team orderly executed online technical support processes such as core unit status diagnosis and radiation evaluation, and carried out public opinion responses and logistical support drills for major emergencies.

During this drill, personnel of the nuclear emergency team have shown outstanding performance in effective communication, timely response, appropriate measures and strong protection. This drill also effectively tested the nuclear emergency response system's operation, technical support and capabilities in deployment of emergency resource.

Ningde Nuclear Power Base Conducted the First Domestic Mutual Support Drill

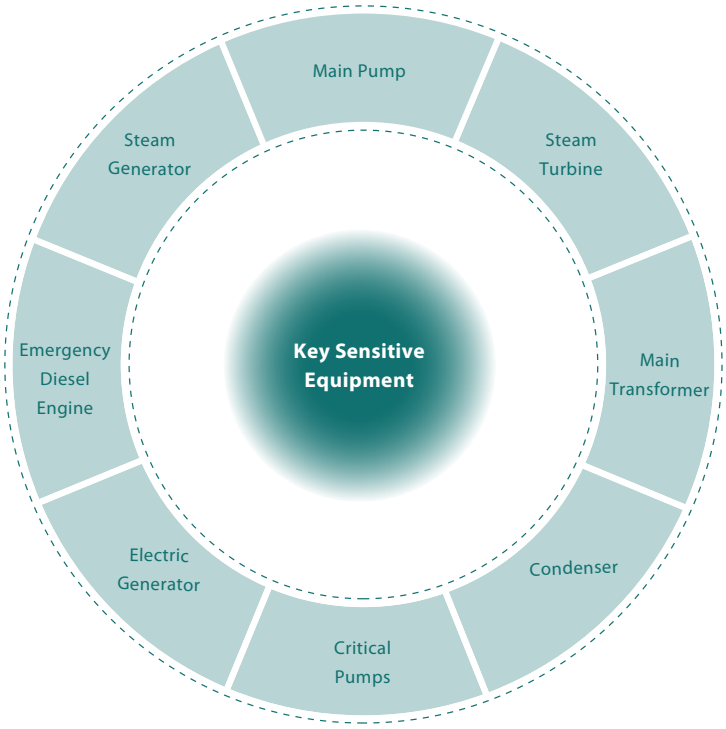
On March 21, 2019, the first domestic post-Fukushima improvement mutual support drill was held at Ningde Nuclear Power Base. This joint drill aimed to implement requirements of the *Nuclear Safety Law*, the *Nuclear Power Group Corporation Power Plant Nuclear Accident Emergency Site Support Cooperation Agreement* and other documents, and enhanced the nuclear accident emergency mutual support capabilities of both Ningde Nuclear and Fujian Fuqing Nuclear Power Company ("**Fuqing Nuclear**"). During the drill, relevant personnel of Ningde Nuclear started in a timely manner, communicated information accurately and coordinated orderly. Fuqing Nuclear Rescue Team responded positively. The success of this drill not only achieved its expected purpose but also promoted the establishment of an emergency mutual support system.

Equipment Safety Maintenance

The reliability of equipment has a critical impact on nuclear safety management. In order to ensure nuclear power equipment operates in high stability, nuclear power plants have considered the equipment features and specifications at the design phase. We attach great importance to the top-level design of equipment reliability management, continuously strengthen risk prevention management of major sensitive equipment, follow various regulatory nuclear power plants operation technical specifications requirements, establish equipment management teams, regularly monitor and maintain nuclear power plants equipment, adjust and optimize equipment reliability, achieving normalization, programmed and standardization of equipment management.

In accordance with the Improvement Scheme on Nuclear Power Safety Management and the *Special Plan for Improving Nuclear Power Equipment*, we focus on lean management and full life-cycle equipment management while combine with the *Equipment Daily Tracking Management Measures* and "8 + 1" major equipment management improvement measures to continuously improve the reliability of unit equipment. At the same time, we have established an operation management center for achieving comprehensive adjustment in personnel, organization and mechanism. We clarified the responsibility for equipment quality control at all levels, publicly selected qualified major equipment managers, formulated assessment and incentive policies for managing major equipment, optimized major equipment management and nuclear power plant business model, and therefore to realize "dedicated, full-time and accountable" personnel management and accomplish full-scale, comprehensive and full-process monitoring and management of on-site operations.

"8 + 1" Major Equipment



In 2019, the reliability of "8+1" major equipment at NPPs has been significantly enhanced, and the indicators of forced breakdown caused by "8+1" major equipment decreased from 0.122% in 2018 to

0.002%

Equipment maintenance includes routine maintenance and refueling outage. Based on the nuclear power plants' pressurized water reactor design, the nuclear reactor of each unit in operation must be shut down for refueling after a certain period of time. Taking nuclear power plant safety and economic factors into considerations, we have uniformly planned and rationally deployed personnel to perform outage activities. Meanwhile, nuclear power plant equipment has been categorized and analyzed to continuously improve efficiency, detect equipment abnormalities in real-time and ensure outage activities are carried out in an orderly manner.

During the Reporting Period, we successfully carried out and completed 19 refueling outages, including one initial outage.

Strengthening Safety Supervision

The operations of nuclear power units must fulfill the international and national regulatory requirements. CGN Power actively complies with relevant national nuclear safety regulatory requirements, accepts irregular inspections of nuclear power plants by national regulatory agencies, and monitors the Company's compliance with nuclear safety regulations. To further strengthen the safety supervision of nuclear power units, we have established a three-tiered nuclear safety supervision system consisting of the plant safety engineers, safety authorities and the Center of Independent Supervision and Assessment for Nuclear Safety ("**Nuclear Safety Supervision Center**") to independently monitor and evaluate the safety management standards of nuclear power plants. The scope of safety supervision and evaluation covers safety culture cultivation, unit safety management and control, equipment reliability, project safety and quality control, network safety, nuclear power plant security and emergency management.

CGN Power also accepts independent safety assessments by international industry organizations, including IAEA and WANO. Through international peer evaluations and supervisions, we effectively share the good safety management practices of international peers, continuously enhance internal learnings and improve the level of safety management.

Independent Internal Safety Supervisions	
Level	Scope of Supervision
On-site safety supervision team with NPP safety engineers as the core	Ensure effectiveness of NPPs daily production activities in terms of safety
The safety authority with the basic functions of managing the safety quality of NPPs	Ensure and oversee the safety management system effectiveness at the organizational level
Nuclear Safety Supervision Center monitoring multiple plants	Carry out independent safety supervision and evaluation at each NPP
External Supervisions	
National Nuclear Safety Administration	Supervise and inspect compliance with nuclear safety regulations
International peers' independent safety assessments (including IAEA & WANO)	Evaluate and supervise the safety operation in NPPs

WANO Peer Reviews

During the Reporting Period, we accepted WANO peer reviews with an "open-minded learning" positive attitude and received a high level of recognition and positive evaluation in each review. At the same time, we organized members' experts to the events and continued to improve solution of common issues of NPPs through multiple channels. This year's WANO comprehensive analysis report points out that CGN Power's WANO indicator is at an excellent level and maintains a good trend. The average value of the WANO composite index is higher than international peers, with 10 units scoring full marks.

IAEA Radiation Monitoring Capability Verification

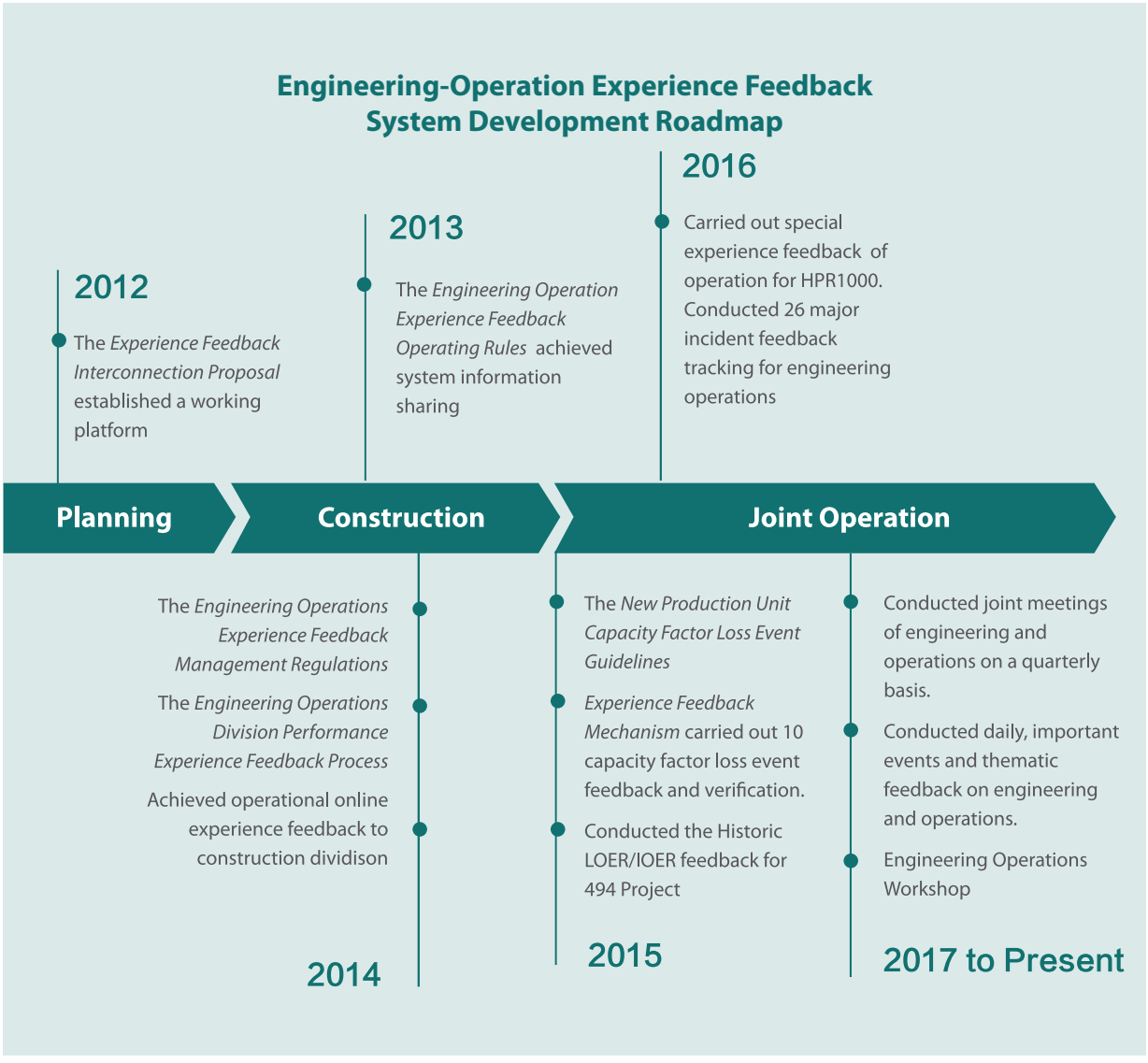
The IAEA is the world's largest testing provider for radiation monitoring activities and the most authoritative international evaluation agency in radiological analysis. On December 2, 2019, IAEA announced the results of the 2019 global laboratory radiation monitoring capability verification. The Suzhou Academy of Environmental Protection and Radiation Safety Center ("**Environmental Protection Center**") submitted 6 samples from 24 monitoring projects for the test and all samples received "satisfactory" results, indicating that the radiation monitoring capabilities of the Environmental Protection Center have reached the international advanced level.

Implementing Experience Feedback

The experience feedback system is an important mechanism for nuclear power safety management. We always adhere to the collection of internal and external historical experiences to improve nuclear power plants safety by performing root cause analysis for operational incidents, formulating targeted corrective actions, preventing problems from recurring and continuously improving the effectiveness and operational efficiency of the experience feedback system. We have established an incident reporting and classification management system, through which we regularly summarize and solidify good practices, conduct regular exchanges with peers, leverage external experience feedback and form a dynamic and transparent experience feedback system to promote the improvement of safety management.

Feedback Between Engineering and Operation

Site selection, design, construction, commissioning, operation, and nuclear power plant management serve as prerequisites for nuclear power plant safety, during the process various operating units and departments coordinate and share their experience feedback. Through the two-way experience feedback mechanism between engineering and operations, both parties realized mutual sharing and use of experiences, and promote nuclear power unit improvement in areas such as design, supplier quality, equipment replacement, construction and commissioning management, operation optimization, maintenance strategy and regular safety reviews, etc.



>>> Maintenance activities

Feeback Between Multiple NPPs

We actively conduct experience feedback analysis of various nuclear power plants, regularly organize experience feedback screening and selection, and provide relevant experiences to power plant professionals to facilitate learning, thinking and referencing, ensuring that lessons are learnt from our own experiences as well as other power plant operating organizations to improve safety level. At the same time, we have compiled historical experiences and lessons in many aspects such as industrial safety, fire safety, environmental safety, operation and maintenance, etc. During the Reporting Period, we compiled the *Special Feedback on Small Lifting Operations*, the *Special Feedback on Wiring Errors*, the *External Major Events Express* and other publications.

External Feedback

In order to strengthen the digestion and absorption of important experiences from international peers and implement them in our system, we also carry out Significant Operating Experience Report ("**SOER**") and WANO performance analysis. The Company has organized a comparative *SOER analysis among multiple power plants* to identify common issues and formulate improvement directions. During the Reporting Period, we compiled the *SOER 2015-2 Risk Management Challenge Comparison Analysis Report of Power Plants* to enhance the management's awareness on risk management and improve risk management capabilities. In the meantime, based on WANO assessment results, we continuously maintain the verification and optimization of improvement measures to support management's decision-making, prioritize issues related to nuclear safety operations, identify and resolve issues in a timely manner, and to maintain and improve the level of nuclear safety.

>>> Ningde Nuclear Base

Building Quality Engineering

The quality of nuclear power projects is closely related to nuclear power operation safety. On the basis of conscientiously implementing the relevant national laws and regulations on nuclear power construction projects, CGN Power insists on building quality projects with the highest standards and requirements, and continuously improves nuclear power plant safety management in aspects such as site selection, engineering design, equipment manufacturing, construction and installation, commissioning and operation, laying a solid foundation for the safe and stable operation of nuclear power plants.

Engineering Safety Practices

In order to improve the safety level of nuclear power projects, we have formulated and implemented the *Zero-Defect Scheme for Safety Quality*. Based on the international construction safety and quality benchmark and team building, we adopt three measures (zero defect team, potential hazard identification and behavioral improvement) and four tools (risk analysis, work package, work briefing and human error prevention) to realize comprehensive control of quality, schedule, technology and environment, to maintain the international leading level of safety and quality performance of nuclear power projects and to continuously improve on this basis.

Zero Defect Team

Establish the zero-defect team to resolve acute problems through team management, better process guidance and evaluation. The teams have been evaluated to urge the members to improve and prevent key issues at construction sites.

Potential Hazard Identification

Continuous efforts have been made in potential quality hazard identification. Responsibility of each level in potential hazard identification and management regulations have been defined and implemented. Meanwhile, employees have been assigned to monitor the potential hazard identification system implementation and improve potential hazard identification capabilities.

Behavioral Improvement

The "Behavioral Improvement Action" was launched and the *Implementation Guide to Quality Behavior Observation* was prepared and published to involve all employees in quality behavior observations, eliminating inadequate behaviors and ensuring engineering construction quality.

During the Reporting Period, the Company has set the project safety and quality goals as "zero behavior violation, zero quality defect" to accomplish "cultural leadership, management demonstration, management improvement, and capacity improvement". Key tasks include:

- Deeply promoting nuclear safety culture
- Optimizing the project quality management mode and improving QA / QC independence
- Improving key positions competence and building a solid foundation for quality management
- Strengthening the control of key construction activities
- Promoting suspicious items management
- Improving quality supervision and inspection effectiveness
- Deepening supply chain synergy and promoting joint improvement
- Promoting the implementation of major contractor responsibility management
- Optimizing supplier procurement management
- Proactive benchmarking and continuous improvement of equipment supervision

Engineering Construction Safety for 6 consecutive years with

0 serious injury **0 death**

Nuclear Power Engineering Quality Enhancement Plan (2019)

Organization optimization	Process control	Cultural development	Ability development
Project quality management mode	Effectiveness of core process (welding/ non-destructive testing/ concrete/ massive material)	Reinforce management demonstration	Organization ability
QA/ QC Effectiveness	Improve core process, reduced barrier	Implement two "zero tolerance"	Personal Ability (Frontline manager/ QA/ QC)
Strengthen evaluation		Safety culture, follow procedure and object to violations	

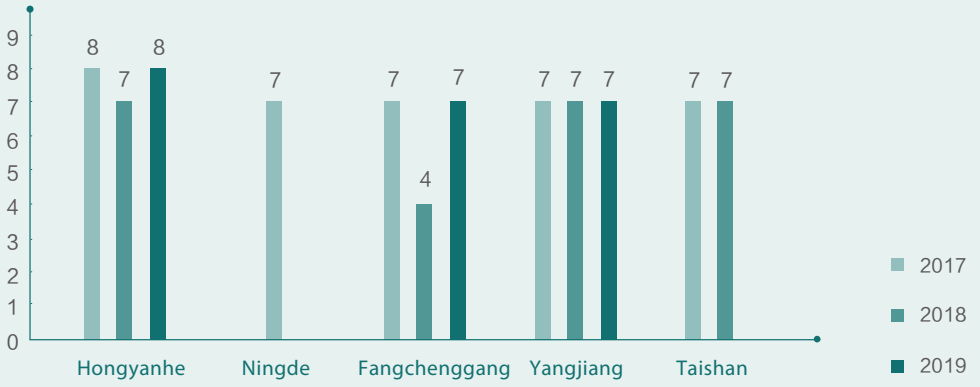
Solid foundation: Zero defect management

Basic requirement: Follow procedure, object to violations

Engineering Rating

For nuclear power projects under construction[7], the regulatory authority conducts a comprehensive assessment on project safety, quality, and environmental impact in terms of performance standards, site selection, and management level based on the *Manual of Safety, Quality and Environment Standardization and the International Benchmarking Evaluation of Nuclear Power Projects*. The rating system is divided into ten levels, of which level 5 and level 6 indicate good, level 7 and level 8 indicate advanced, level 9 and level 10 indicate international benchmark.

Overall Safety, Quality and Environment Benchmarking Rating of Nuclear Power Projects Under Construction



Taishan Nuclear Became the World's First EPR

At Taishan Nuclear Power Base Phase I, the two nuclear power units with a single unit capacity of 1.75 GW are the world's largest nuclear units by single unit capacity. The construction of these two units started in 2009 and 2010, respectively. They were the third and fourth 3rd generation EPR nuclear power units to start construction world-wide. The construction of Taishan Nuclear Power project proceeded on-time steadily guaranteeing safety and quality. The Taishan Unit 1 became the world's first and EPR reactor and Taishan Unit 2 became the world's second EPR unit into commercial operation.

[7]As of 2019, Ningde, Yangjiang and Taishan nuclear power bases have started commercial operation, and therefore no overall rating evaluation will be performed.

Hongyanhe Units 3 and 4 Won the National Quality Engineering Award

The China Construction Enterprise Management Association announced the 2018-2019 National Quality Engineering Award list. Hongyanhe Units 3 and 4 won the National Quality Engineering Award, becoming the first nuclear power project to receive this award. The National Quality Engineering Award is an authoritative award in the field of engineering construction in China. It was established by the State Council as the earliest, highest-standard, cross-industry and cross-professional national-level quality award in the field of engineering construction.

The construction of Hongyanhe Units 3 and 4 started in March 2009 and August 2009, respectively. The project has always adhered to the principle of "high starting point, timely feedback, meticulous construction, and high quality." Under the mindful organization of Hongyanhe Nuclear, all units worked together to build an exemplar nuclear power engineering project.

The construction of nuclear power plants involves various professional suppliers and contractors. Close collaboration and communication can improve the engineering quality and safety level. For information on supplier management, please refer to the "Collaborating for Sustainable Development" section of this Report.

Network and Information Security

Network and information security are critical to CGN Power operation and its nuclear power plants. We have established a corporate information security system and successfully obtained the information security system certification（GB/T22080-2016/ISO/IEC 27001:2013）in accordance with the *Cyber Security Law of the People's Republic of China*, IAEA best practices and other safety regulations relating national level protection and power monitoring. As the management standard in the field of network information security, the system enables us to manage network information more effectively. The Cyber Security and Informatization Commission has been established to manage cyber security work, unify, coordinate and promote the development and application of informatization. We continue to improve network security by strengthening network inspection, reporting and warning, and ensure that the Company's network, communication and information systems are safe, stable and reliable to prevent information leakage.

During the Reporting Period, the Company did not have any level III or above information security incidents[8], and the number of large-scale computer virus infections was zero. We have effectively blocked attacks on websites and applications by domestic and foreign IP addresses, ensuring nuclear power production safety.

[8]According to the *National Contingency Plans for Cyber Security Incidents* (CAC [2017] No.4), network security incidents of level III and above include: extremely serious network security incidents (level I), serious network security incidents (level II), relatively serious network security incidents (level III).

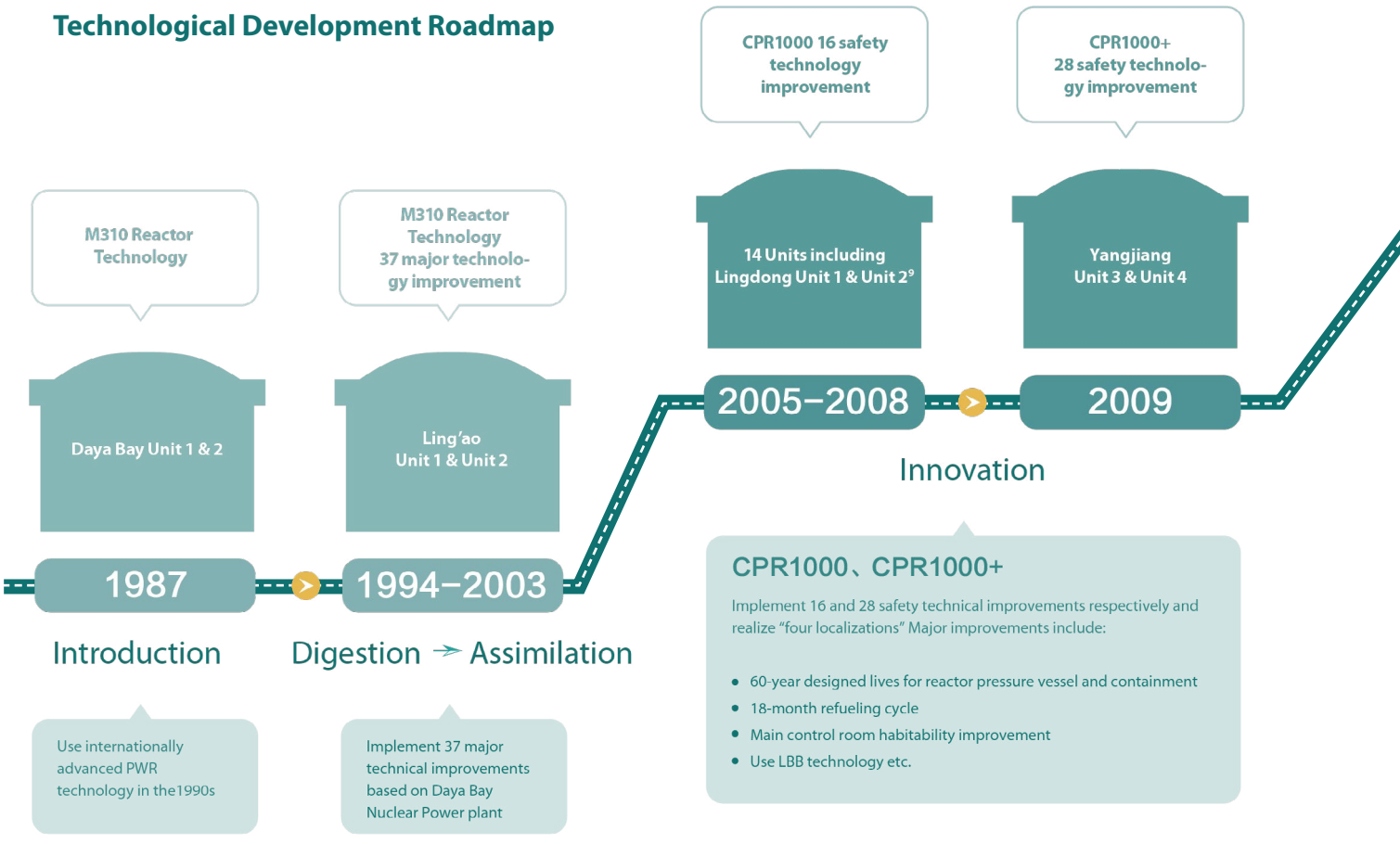
Leading Nuclear Power Innovation

CGN Power firmly implements the strategy of "development based on innovation" and follows the "Introduction, Digestion, Assimilation and Innovation" guidelines, regarding technological innovation as the core of the Company's sustainable development. We continuously improve our technological innovation system, actively promote the development of technology research and development platforms, foster independent innovations in safety and technology, laying a foundation for the development of safer, smarter and cleaner nuclear power.

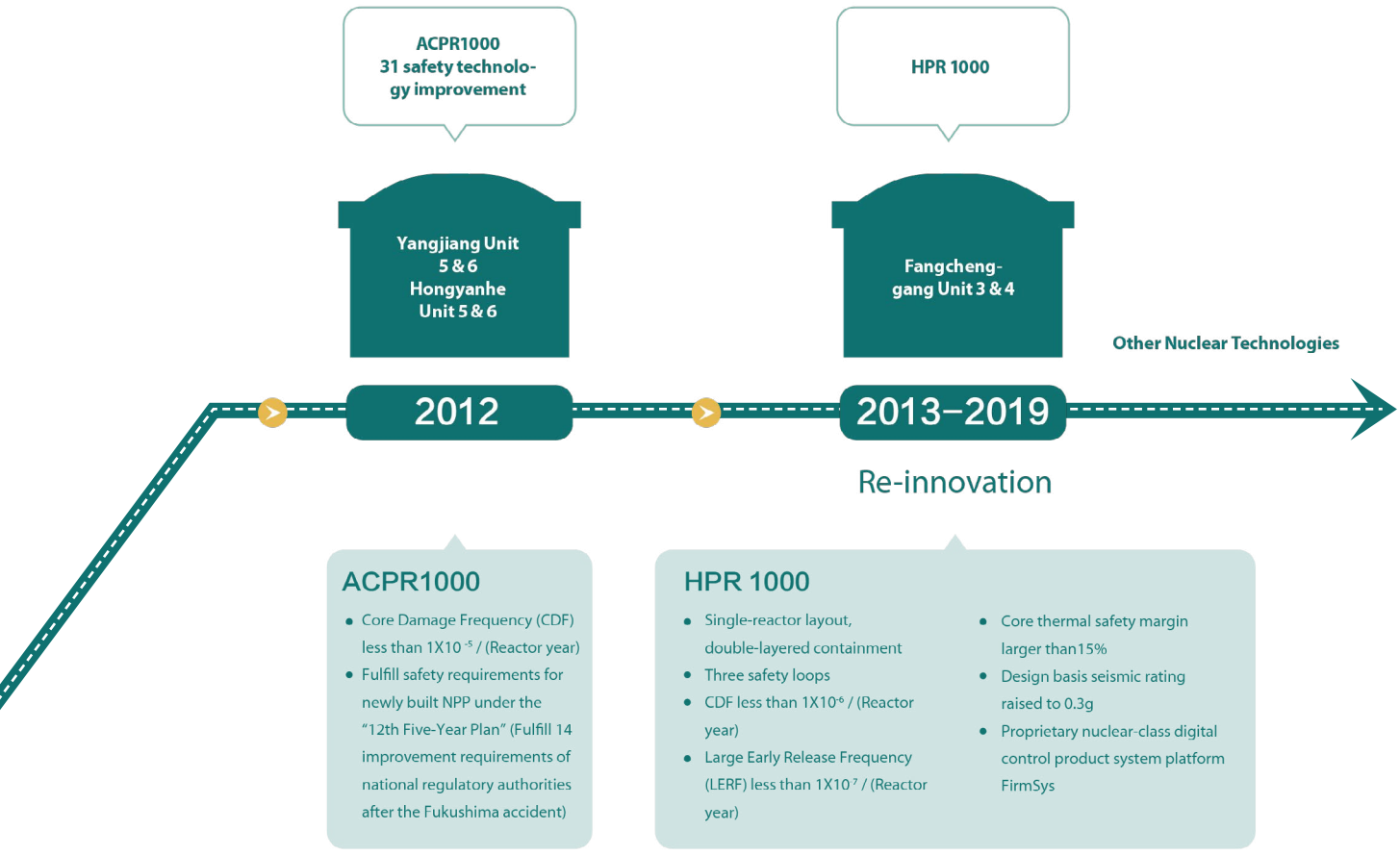
Upholding Technological Development

Since the adoption of M310 reactor technology at Daya Bay Nuclear Power Station, CGN Power has continuously studied and absorbed experiences, and promoted the development of nuclear power with innovations.

Technological Development Roadmap



[9]Including Lingdong Unit 1 & Unit 2, Hongyanhe Unit 1-4, Ningde Unit 1-4, Yanjiang Unit 1 & Unit 2 and Fangchenggang Unit 1 & Unit 2.



Through R&D, we have developed the HPR 1000 with proprietary intellectual property rights. Based on decades of experiences, technologies and talents accumulated in the design, construction, operation and R&D of nuclear power plants in China, HRP1000 is a third generation gigawatt-level nuclear power technology with proprietary intellectual property rights. The independent R&D of this technology has laid a technical foundation for the Company's further nuclear power development.

In addition, based on majority of the world's third generation nuclear power technologies in hand, we continue to promote research in other nuclear power technologies in accordance with the technological development roadmap "Leading Plan". We are committed to developing technological capabilities for the Company's future development and contributing to nuclear power safety.

Exploring Technological Innovation

Research and Development Platform

In order to continuously promote independent innovation, we have established R & D platforms at the national, group and company-level, including the National Energy Nuclear Power Plant-level Equipment Research and Development Center, the National Energy Marine Nuclear Power Platform Technology R&D Center, the National Energy Advanced Nuclear Fuel R&D (Experiment) Center, the National Energy Nuclear Power Operation and Life-cycle Management Technology R & D Center, the National Nuclear Power Plant Safety and Reliability Engineering Technology Research Center, the National Energy Nuclear Power Engineering Construction Technology R & D (Experiment) Center and the National Nuclear Power Safety Monitoring Technology and Equipment Laboratory. There are seven national-level R & D centers and key laboratories, and multiple large-scale advanced laboratories in the industry, including thermal hydraulic and safety research laboratories, material performance analysis laboratories, and inaccessible equipment laboratories.

The establishment of independent R&D platforms is expected to shorten the technological achievement transformation cycle, improve the maturity, matching and engineering level of existing technologies, accelerate the transformation of production technology, promote technological upgrading, and introduce, digest and absorb international advanced technologies to provide technical support for the Company. For the year ended 2019, our R&D staff exceeded 4,700.

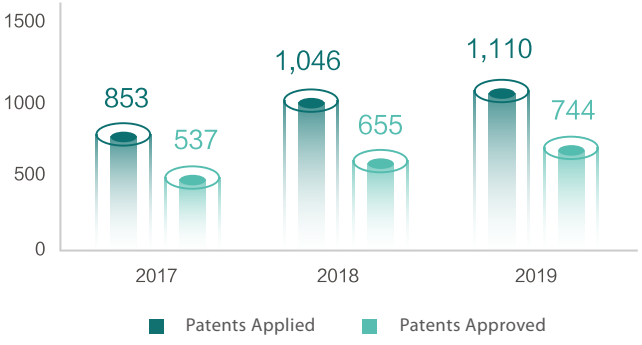
First National-Local Joint Engineering Research Center

On April 20, 2019, China Nuclear Power Technology Research Institute's ("**CNPRI**") application of establishing a national-local joint engineering center on nuclear power intelligent equipment and robot application technology was approved by the National Development and Reform Commission. It is the first national level engineering R&D platform of CNPRI since its National Energy Nuclear Power Plant-level Equipment Research and Development Center was approved in 2011. It is also the first national-local joint engineering R&D center of CGN Group.

R&D Achievements

CGN Power attaches great importance to the protection and management of intellectual property rights and incorporates intellectual property protection into all aspects of project approval, execution, interim inspection and final acceptance inspection, to fully protect intellectual property rights. We continuously improve the construction of intellectual property management organization and procedures and regularly upgrade the intellectual property management system, effectively promoting the development of intellectual property management and laying a foundation for more R&D achievements.We believe that these intellectual properties would strengthen our competitiveness.

Patents Application and Approval



Leveraging our independent R&D platforms, during the Reporting Period, the Group initialed

239 independent R&D projects and filed

1,110 patent applications,

of which **744** have been approved.

Intelligent Steam Generator Hydraulic Test Device

CGN Operations successfully applied the first intelligent steam generator hydraulic test device during the seventh outage of Ling'ao Unit 4 to carry out independent testing, marking the official realization of intelligence and intellectual property rights on this project. The intelligent steam generator hydraulic test device is an intelligent testing device independently developed by CGN Operations with water-filled heating and pressurizing, metal temperature measurement and real-time video monitoring functions. This technology is currently in the domestic and international advanced level with significantly higher safety performance, quality and technology than traditional testing equipment.

Successful Application of New Dredging Equipment

On October 16, 2019, an automatic dredging equipment, which was designed by CGN Operations with a R&D duration of 19 months, was successfully applied in the PX pumping station in Daya Bay Nuclear Power Station.

The new dredging equipment has been put into operation and officially ended the traditional dredging method considered to be of high safety risk and low efficiency. While enhancing the safety factor, it also significantly improves the operating efficiency.

Digital Hualong Platform 2.0

The Company's Digital Hualong Platform 2.0 ("**DHP**") was officially launched on June 30, 2019. Based on three-dimensional design modeling, the platform focuses on NPPs and business data in the construction process to realize intelligent linkage between three-dimensional model, two-dimensional drawing and multi-dimensional data integration, delivering actual NPP and digitalized NPP simultaneously. The successful launch of DHP will further promote digitalization, visualization and intelligent management in the nuclear power business. It effectively improves nuclear power intelligent transformation and the level of safety and quality, and build an open, shared, and collaborative intelligent system for the entire life cycle of NPPs. It is of great significance to achieve digital delivery and smart production, operation and maintenance of NPPs.

Protecting the Environment

In response to climate change, China has vigorously developed clean energy to achieve low-carbon development, which brings great development potential for the nuclear power industry. CGN Power is committed to providing safe, reliable, low-carbon and economic electricity to society and protecting the environment.

>>>Yangjiang Nuclear Base

>>>Ningde Nuclear Tea Garden

CGN Power strictly abides by the national and local environmental laws and regulations, including the *Environmental Protection Law of the People's Republic of China*, the *Law on Prevention and Control of Radioactive Contamination of the People's Republic of China* ("***Law on Prevention and Control of Radioactive Contamination***"), the *Water Law of the People's Republic of China*, the *Law on Environmental Impact Assessment of the People's Republic of China*, the *Atmospheric Pollution Prevention and the Control Law of the People's Republic of China*, the *Marine Environment Protection Law of the People's Republic of China*, the *Law on Prevention and Control of Solid Waste Pollution of the People's Republic of China*, etc. We are committed to ensuring nuclear power safety and building a clean, low-carbon, and efficient nuclear power system under legal compliance.

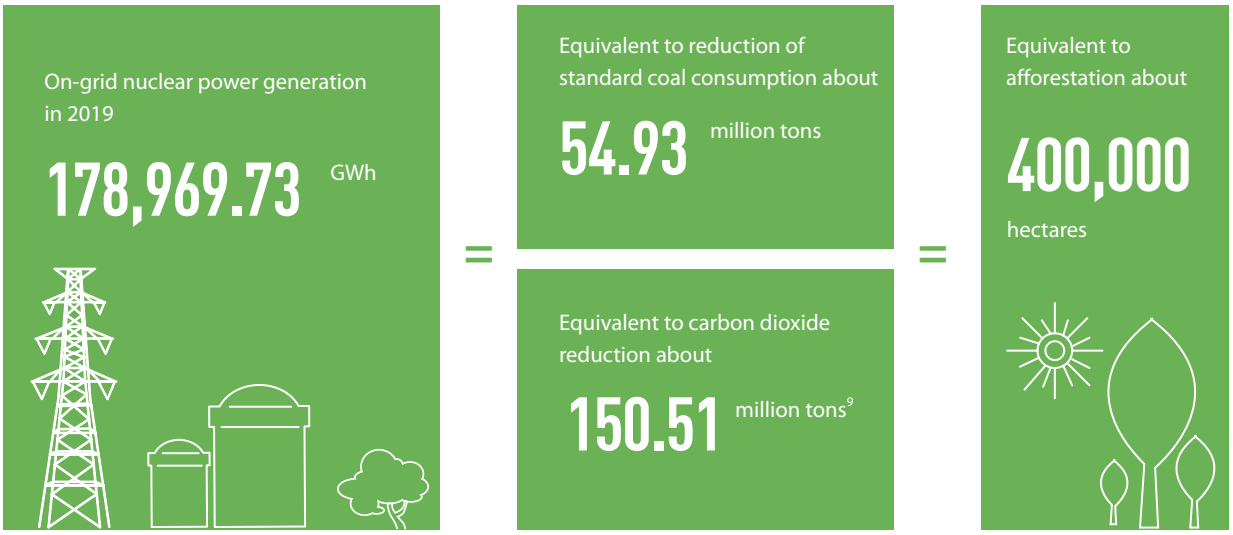
We have actively cooperated with the national environmental policy of "comprehensively tightening ecological and environmental protection and lawfully promoting triumph in the uphill battle for prevention and control of pollution" as well as the action plan of "Law Enforcement Training on Ecological and Environmental Protection". Following the basic principle of "prevention first, combining prevention and mitigation", we are committed to promoting ecological and environmental protection. Throughout different stages of site selection, feasibility study, construction and operation, and maintenance of nuclear power plants, we strictly comply with relevant national environmental protection laws and regulations and related requirements. We are open to the supervision of national and local environmental protection authorities to achieve environmental protection and low-carbon production. In order to achieve comprehensive environmental management of nuclear power plants, we pay close attention to the protection of the atmosphere, water quality, soil, landscape, natural habitat and biodiversity in all aspects of project construction and operation. At the same time, we have identified environmental pollution and risks, and set targets for environmental protection and development. We have also adopted specific energy conservation and emission reduction measures to prevent environmental pollution at source and improve the efficiency of resource utilization. We strive to promote green development and contribute to the goals of accomplishing ecological civilization and building a beautiful China.

Responding to Climate Change

It is urgent to deal with a series of problems brought by climate change. The United Nation's Intergovernmental Panel on Climate Change's ("**IPCC**") *Special Report on the Impacts of Global Warming of 1.5 ºC* has drawn great attention from national governments and public of all countries. The society is increasingly aware of the serious threats and challenges caused by climate change to the present and future of mankind, which requires the taking of urgent measures to reduce and prevent climate risks. At the "19th National Congress of the Communist Party of China", China has proposed the goal of "Speeding Up Reform of the System for Developing an Ecological Civilization, and Building a Beautiful China" and made the commitment of "Actively Participating in Global Environmental Management and Implementing Emission Reduction", regarding ecological civilization construction as an important strategy for sustainable development.

The *Three-Year Action Plan for Winning the Battle for a Blue Sky* released by the State Council emphases on the adjustment of energy structure and the development of clean energy industries such as nuclear power, in order to significantly reduce the total amount of atmospheric pollutants and greenhouse gas emissions in a coordinated manner. Compared with traditional energy, the stability and economic benefits of nuclear power generation make it the most ideal clean energy to replace "traditional coal energy", and it is the key to promoting rapid decarbonization in the global power generation industry. Nuclear power can not only promote energy structure adjustment in China, but also make a key contribution to its increasingly growing energy demand. At the same time, it supports to achieve climate change reduction targets. Leveraging its strong technical reserves and operational experiences, CGN Power actively promotes the development of nuclear power as a clean energy source, effectively responding to climate change and protecting the clear water and blue sky.

The 25th UN Climate Change Conference was held in December 2019 in Madrid, Spain. As a representative for CGN Group, we released the first biodiversity conservation report in the nuclear power industry at the side event of "Nuclear Energy Development and Climate Change". We presented the *Report on Biodiversity Conservation at Daya Bay Nuclear Power Base* to share the concept of "Make Good Use of Natural Energy to Create Ecological Nuclear Power". As the major force of national ecological civilization construction, CGN Power has been deeply cultivating in the field of nuclear electricity. We operate safely and stably with a nuclear power capacity of 27,142 MW and 24 sets of nuclear units. In 2019, the on-grid nuclear power generation for CGN Power was 178,969.73 GWh, which was equivalent to the reduction of approximately 150.51 million tons of carbon dioxide and an equivalent of 400,000 hectares of afforestation, contributing to the national emission reduction and climate adaptation objectives.



[9]According to the *2019 National Electric Power Industry Statistics Express Column* issued in January 2020 and the *Annual Development Report 2019 of China's Electric Power Industry* 'issued by CEC in June 2019, and other relevant information of the State Council Research Center on environmental protection According to the data, the environmental protection effect of 100 million kilowatt-hours nuclear power electricity is equivalent to reducing standard coal consumption by about 30.69 million tons, reducing carbon dioxide emissions by 84,100 tons, and afforesting by 0.025 million hectares.

Strengthening Environmental Management

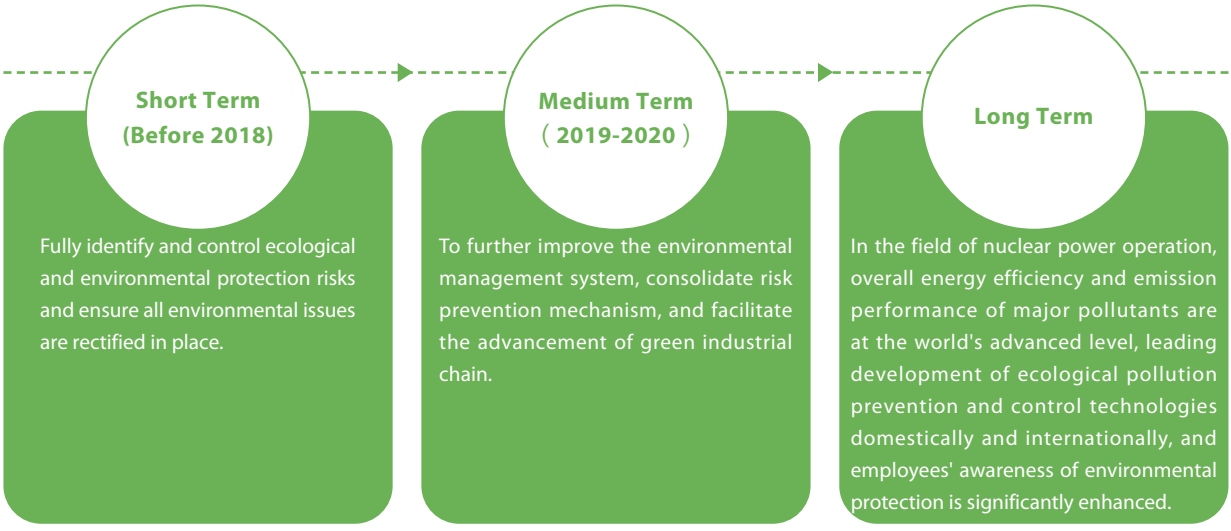
Providing safe, low-carbon and economical power supply to society while making the sky bluer and water cleaner to build a beautiful China is our commitment to the environment and society. In accordance with national and regional laws and regulations, CGN Power follows the environmental management policy of "abide by laws and regulations, conserve resources, prevent pollution and continuously improve", and sets our environmental management goals to implement efficient resources utilization, efficient energy transformation, waste regeneration, and continuous radioactive waste discharge reduction. Based on our environmental management policies and goals, we have established the *Company Environmental Management System* and the *Establishing and Managing Environmental Indicators* to standardized and normalized management processes for identifying environmental impact factors and controlling and managing environmental impacts of operation. We continuously prevent pollution from its source by integrating ecological and environmental protection into planning, construction and production. We strive to improve our ability to control pollutions, make efficient use of resources and reduce environmental impacts by strengthening environmental management.

All nuclear power plants under of CGN Power have obtained the ISO 14001 environmental management system certification and established an environmental management organization network. With a dedicated environmental management department, each nuclear power company, engineering company and operating company is equipped with full-time personnel to manage and improve the environmental management system and coordinate the implementation of environmental management work among various departments. Nuclear power plants regularly organize joint meetings to report the progress of each project, perform analysis of environmental protection laws and regulations, important environmental factors and management measures, coordinate the environmental management work of each nuclear power plant, improving the level of environmental management.

For environmental emergency incidents, we organize preparations of special emergency plans and drills to improve the ability of relevant personnel to deal with these incidents. In the meantime, according to the requirements of relevant national documents on improvement of emergency preparation plans for environmental incidents and record reviews, we have established the risk prevention and control system and strengthened the Company's risk management capacity in pollution prevention and control. In addition, the *Company Management Policies* has stipulated the accountability mechanism for environmental accidents. We have strictly implemented corporate environmental protection accountability by signing performance contracts and responsibility letters with different management levels and each subsidiary every year. It aims to clarify the provisions on management's accountability for environmental accidents and punishment for violations, fulfilling our environmental commitments and social responsibilities.

Each nuclear power subsidiary of the Company releases environmental management goals and targets every year to fully identify and evaulate various environmental factors and risks, comprehensively inspects ecological environment pollution and risks during operation and project construction, and formulates corresponding control and improvement programs.

In order to promote ecological and environmental protection in a scientific and efficient manner, we have set up short, medium and long-term environmental management targets to take concrete steps to protect the ecological environment.



Efficient Use of Resources

Nuclear Fuel Utilization

Nuclear fuel is the main raw material for nuclear power generation. The thermal energy generated by nuclear reaction is used to drive the generators to generate electricity. We continue our research projects to improve unit efficiency and develop fuel cycle models and refueling models with reliable and economic technologies. We also cooperate with relevant agencies in the R&D and upgrading of nuclear fuel, and gradually improve the efficiency and effectiveness of nuclear fuel. After a series of technological development and upgrading, the current nuclear fuel cycle in the nuclear power plants ranges from 12 to 18 months. Most units have been upgraded to the 18 months refueling mode. This has greatly reduced the number of refueling outages and effectively improved the unit availability and use of nuclear fuel.

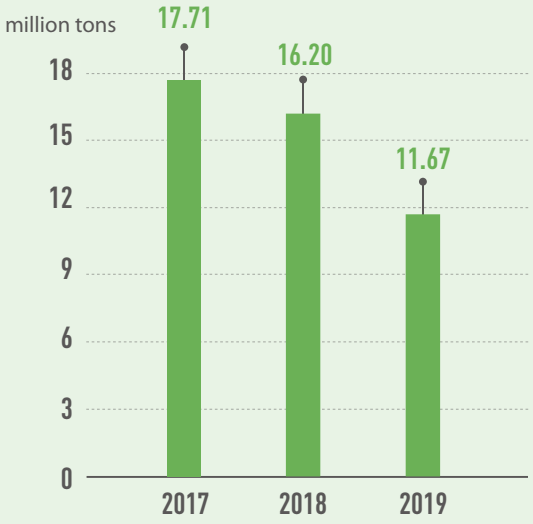
Improving Water Management

CGN Power attaches great importance to management and utilization of water resources and strengthens the maintenance of water supply system to ensure sustainability and efficiency of water supply. We source water from municipal water supply, power plant reservoirs and sea water. The reservoirs are equipped with an automatic integrated video and satellite monitoring system to track water level, dam seepage, leakage pressure, rainfall, ensuring stable operation of the reservoirs. Managing according to the level I water source protection standard, measures such as water withdrawal permit system, on-time payment, water usage planning, water usage declaration and statistical water tracking system have been implemented in the reservoirs. We have formulated the *Regulations for Water Saving Management at the Base* to advocate water conservation and reasonable water use and conduct timely intervention and emergency repairs to abnormal water use and burst pipes, avoiding waste of water resources. To further improve the sustainability of water supply, we regularly assess the safety and stability of water supply and formulated water-related management regulations and emergency plans, including the *Emergency Plan for Water Supply Pipeline Shutdown* and the *Emergency Plan for Reservoir Collapse* to ensure timely and effective handling of water source anomalies. In accordance with the plans, we rationally allocate water resources and implement comprehensive environmental protection measures in nuclear power plants freshwater reservoirs, as well as the ecological environment of adjacent water areas to further improve the stability and sustainability of water supply.

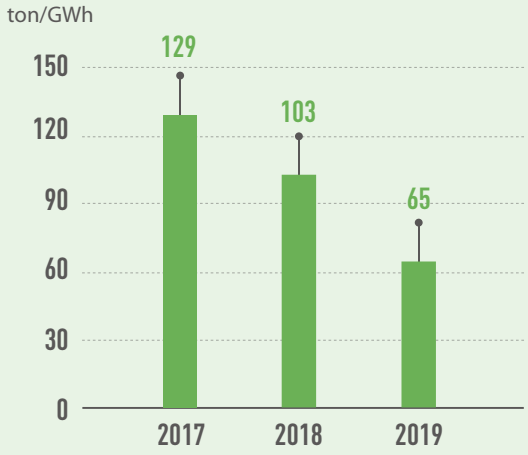
Our water consumption is mainly used for production, office operation and daily life in the nuclear power plants. We continuously monitor our total water consumption and sewage discharge and encourage reuse of water. For example, we use treated reclaimed water for landscape irrigation and road cleaning to realize recycling through a water recycling system. Also, during site construction of engineering construction projects, we inspect the location of pipelines in advance to avoid pipeline rupture caused by accidents during excavation. During the Reporting Period, water consumption per unit of on-grid power generation decreased by 36.70% compared to last year.

>>>Ningde Nuclear Units

Water Consumption (million tons)



Water Consumption Per Unit of On-grid Power Generation (ton/GWh)



World Water Day Theme Activities

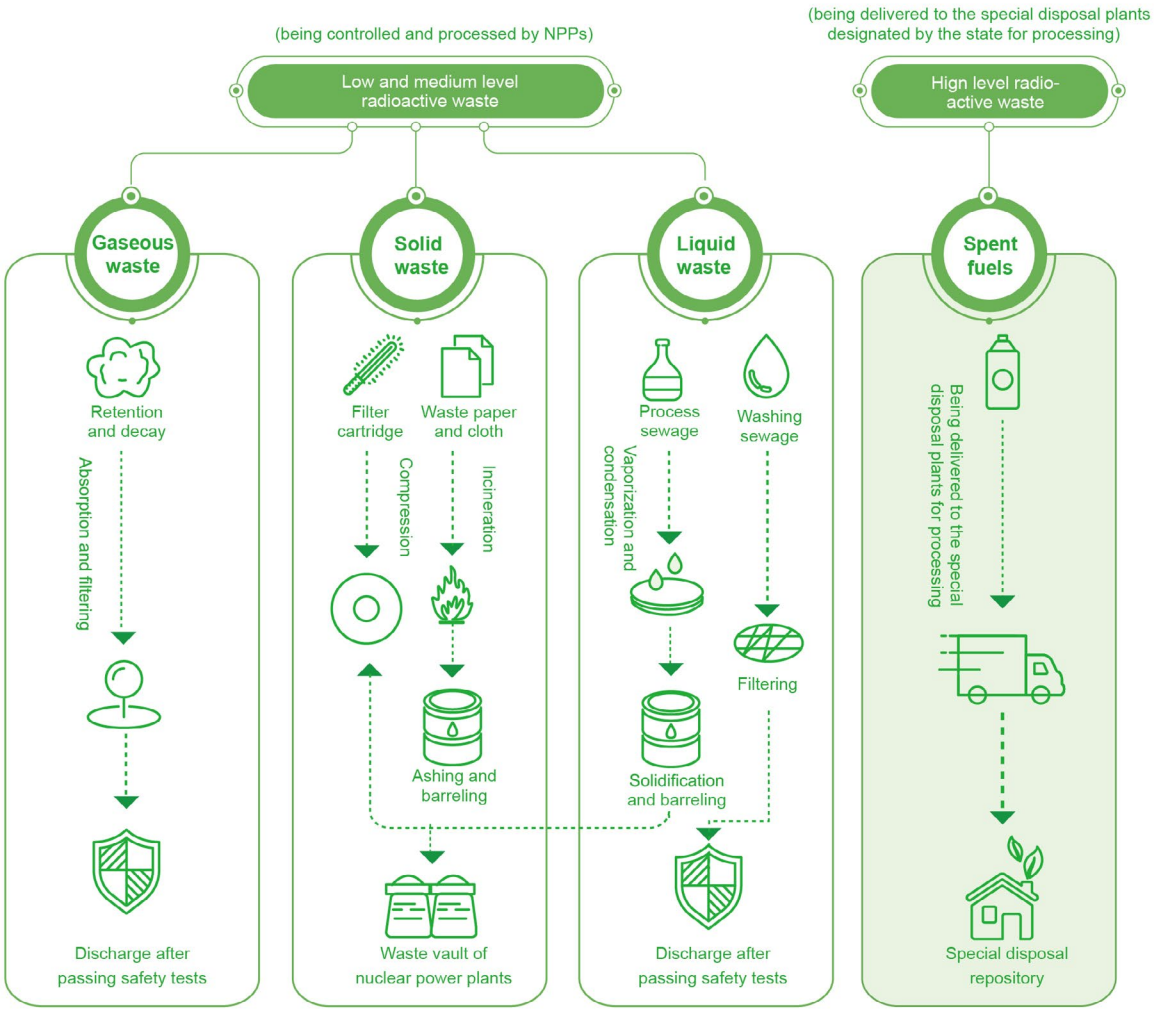
Yangjiang Nuclear held the World Water Day Theme Activities - "Give Priority to Water Conservation and Strengthen Water Resources Management" at Kongtong Village on March 22, 2019. Volunteers were divided into groups to carry out water resources activities for students and villagers. As Kongtong Village has serious aging pipe problems, volunteers conducted a simple assessment and replaced the seriously aged water pipes. Then water purifiers were installed to ensure water sanitation. In Kongtong primary school, volunteers carried out activities on the topics of world water day, water resource introduction and water resource protection. Students' understanding of water conservation was deepened through interactive questions and answers session. Water conservation signs were posted beside wash sinks and toilets to remind students of water conservation habit.

Reducing Pollutant Emissions

Radioactive Waste

CGN Power operates in strict accordance with national and industrial standards such as the *Law on Prevention and Control of Radioactive Pollution*, the *Regulations for Environmental Radiation Protection of Nuclear Power Plant* (GB6249-2011) and the *Technical Requirements for Discharge of Radioactive Liquid Effluents from Nuclear Power Plant* (GB14587-2011). The operation and production activities of nuclear power plants produce solid, liquid and gaseous wastes ("**Three-wastes**"). For radioactive wastes, all nuclear power plants have established waste management organizations. In the meantime, nuclear power plants have adopted the same three-waste treatment technical procedures and followed the basic principles of radioactive substances management - ALARA (As Low As Reasonably Achievable) in order to strictly control radioactive waste discharge. Domestic and international advanced technologies have been adopted to control and treat radioactive waste, ensuring that all treated radioactive wastes conform to the national standard. The three-wastes management systems of each nuclear power plant have been designed, constructed and commenced at the same time as the corresponding main project. Currently, all subsystems are operating in a desirable condition.

According to relevant national regulations, spent fuel (that is, used fuel assembly taken from reactors) is a high-level radioactive waste, which cannot be disposed of by the nuclear power plant itself, but must be sent to a designated special disposal plant for further treatment. Each power station is equipped with advanced facilities for treatment of medium and low-level radioactive wastes. The following chart outlines the classification and treatment of each radioactive waste.



To continuously reduce radioactive solid wastes, we have benchmarked with domestic regulatory requirements as well as radioactive solid waste generation of major nuclear power countries internationally to set our long-term targets. We have also formulated management strategies for plant radioactive waste as a whole and proceeded with the radioactive waste reduction work from two aspects, namely source control and capacity reduction technology application. For example, each of our nuclear power plants has optimized the use of plastic sheets in the control area. Daya Bay Nuclear Power Plant has adopted measures such as optimizing the desalination bed and water filter replacement criteria, and promoting the use of reusable nuclear-grade air filters to effectively control the generation of radioactive solid waste from the source.

Furthermore, nuclear power bases of Daya Bay, Yangjiang, Ningde, Hongyanhe, Fangchenggang and Taishan are all operating in strict accordance with requirements of the *National Radiation Environment Monitoring Plan* and the *Technical Specification for Radiation Environmental Monitoring* issued by the Ministry of Environmental Protection. We have established a strict environmental monitoring system and an environmental inspection record system, which focus on monitoring and analysis of air quality, terrestrial organisms and marine organisms within 10 kilometers of the nuclear power plant. In the meantime, we have also assessed environmental conditions in and around the plants to reduce impacts of operation on the surrounding environment. During the Reporting Period, the radioactive waste management of the 24 units under our management strictly complied with relevant national laws and regulations and met the standards of relevant technical specifications. The amount of radioactive waste discharged from nuclear power plants has not only been maintained at low level for a long time but also at a level far below the applicable national limits. It also exceeded the annual management target set by the Company.

	Year	Discharged Liquid Radioactive Waste (Radionuclides Other Than Tritium) to the National Annual Limit	Discharged Gaseous Radioactive Waste (Inert gases) to the National Annual Limit	Solid Radioactive Waste (m^3)	Results of Environmental Monitoring
Daya Bay Nuclear Power Base	2017	0.47%	0.44%	276.4	Normal
	2018	0.35%	0.56%	248.6	Normal
	2019	0.27%	0.43%	244.8	Normal
Yangjiang Nuclear Power Station	2017	0.38%	0.30%	42.8	Normal
	2018	0.29%	0.24%	44.8	Normal
	2019	0.55%	0.30%	60.8	Normal
Fangchenggang Nuclear Power Station	2017	0.78%	0.39%	101.3	Normal
	2018	0.43%	0.35%	64.6	Normal
	2019	0.29%	0.29%	67.6	Normal
Ningde Nuclear Power Station	2017	0.38%	0.51%	129.6	Normal
	2018	0.30%	0.30%	136.8	Normal
	2019	0.24%	0.28%	124.8	Normal
Hongyanhe Nuclear Power Station	2017	0.22%	0.15%	196.8	Normal
	2018	0.21%	0.21%	159.6	Normal
	2019	0.19%	0.20%	118.4	Normal
Taishan Nuclear Power Station[11]	2017	Under construction	Under construction	Under construction	Normal
	2018	0.54%	0.71%	0	Normal
	2019	3.02%	1.59%	0	Normal

[11]The annual emission limit of Taishan Nuclear Power Station is different from other power stations, and there is no comparability among power stations.

Non-radioactive waste

The non-radioactive solid wastes of CGN Power are primarily generated from construction and operation, including construction waste, wastepaper, domestic waste and waste generated from green decoration of buildings. Non-radioactive industrial solid wastes are sorted, collected, stored, disposed and transported according to the *Industrial Solid Waste Management*. Wastes are disposed by qualified professional waste treatment agencies after sorting and recovery. This aims to make full use of various resources and reduce their impacts on the environment. This year, several green office initiatives have been implemented in office areas, such as the establishment of "file bag recycling stations" and other waste recycling stations.

As for the disposal of non-radioactive hazardous chemical waste, we have formulated the *Disposal Procedure of Hazardous Chemical Waste* based on the *Safety Management of Hazardous Chemicals* issued by the state. We have implemented comprehensive and standardized management of waste disposal to prevent various risks in the disposal of hazardous chemical waste.

Non-radioactive sewage discharge

In strict accordance with the *Environmental Protection Law of the People's Republic of China*, the *Marine Environmental Protection Law of the People's Republic of China* and other relevant national laws and regulations and local standards, all of our nuclear power plants have developed non-discharged sewage management procedures, which provide detailed requirements for sewage collection, construction, operation, maintenance management, water quality analysis and testing. In each nuclear power plant, sewage treatment facilities are set up to treat radioactive wastewater and non-radioactive wastewater separately through independent systems, and conduct online real-time monitoring. At the same time, we commission professional organizations to test the discharges' water quality to ensure that discharges conform to relevant standards. For the processing of radioactive liquid, please refer to the "Radioactive Waste" section of this Report.

Greenhouse gas emissions and electricity management

As a clean energy source, nuclear power does not generate greenhouse gas emissions in the process of power generation. The main sources of greenhouse gases are electricity purchased for construction, refueling outages and activities in office and living areas. Committed to reducing greenhouse gas emissions during its operation, CGN Power has set up energy conservation management teams in each nuclear power plant to coordinate the energy conservation work between various departments. Nuclear power plants continue to promote energy conservation and emission reduction through optimizing equipment, upgrading technology, improving management and promoting energy conservation awareness.

Electricity Consumption of NPP Operation and Engineering Construction

Optimize operation mode and energy efficiency for safety and environmental concerns. Improve or replace high energy-consumption equipment when feasible.

- Closely track unit output changes, timely track system anomalies and carry out analysis and evaluation
- Optimize production equipment operation mode to reduce power consumption scientifically and reasonably
- Carry out energy-saving retrofitting of production equipment

Electricity Consumption in Office and Living Areas

Regulate the power consumption of employees in office and living areas, promote the concept of energy saving.

- Carry out energy-saving activities to strengthen employees' awareness of energy saving, conserve electricity, and maintain good living and office habits
- Set electricity consumption quota and record electricity consumption.
- Manage daily energy saving and limit the use of air conditioners and water heaters.
- Adjust elevator operating schedule
- Switch to energy-efficient air conditioners and LED lights
- Implement lighting and power management. Turning office equipment such as computers, printers, etc. into sleep mode when unused

Outstanding Power-saving Measures

DNMC

Saved

5 million kWh of electricity

On the basis of ensuring the safe and stable operation of units, implement relevant measures to reduce power consumption of the plant, and adopt a number of innovative measures on operation optimization of important power consumption equipment during refueling outages and thermal shutdown. Conduct operation optimization of turbine hall ventilation fan, regular testing optimization, replacement of energy-consuming equipment, and operation time control of air conditioning and lighting.

CGN Design

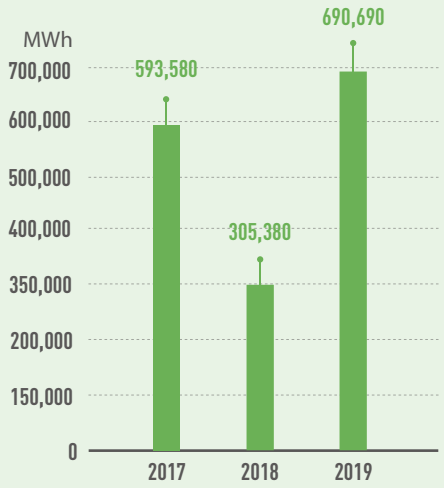
Saved

12.8

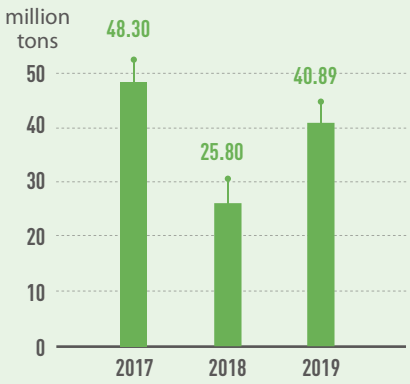
10,000 kWh of electricity

Reasonably control the running time of air conditioners, elevators and other electrical equipment by setting automatic time switch.

Purchased Electricity of CGN Power (MWh)[12]



Purchased Electricity Equivalent to Carbon Dioxide Emissions (million tons)[13]



[12]The purchased power is mainly used for engineering construction, refueling outage, and activities in office and living areas at the nuclear power plants of CGN Power.The main reason for the increase in purchased electricity in 2019 compared to 2018 is that there were more testings for nuclear power units under construction during the commissioning phase , and the number of refueling outages of nuclear power units in operation has increased by nearly 50% compared to 2018.

[13]The conversion formula refers to the *China Electricity Industry Annual Development Report 2019* issued by CEC in June 2019, in which the carbon dioxide emission per unit of electricity generation is about 592 g / kWh.

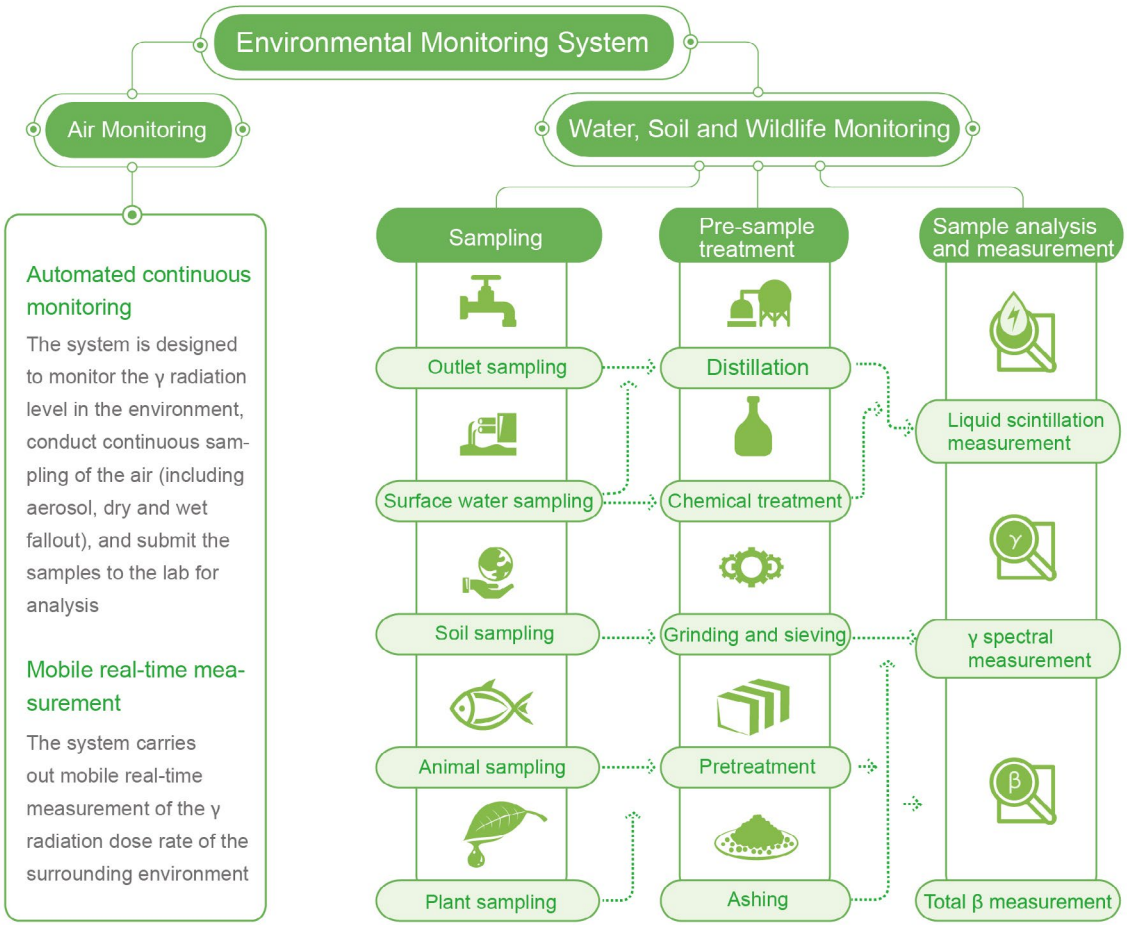
Protecting the Natural Ecosystem

Monitoring Environmental Impacts

From plant planning, design, construction, to operation and maintenance, we take full consideration of impacts on the surrounding environment. We have established a sophisticated and comprehensive environmental monitoring and inspection recording system to track environmental impacts and act to avoid environmental damage in a timely manner. In the meantime, we have also cooperated with external supervisory authorities to keep the environmental impact under control and within legal bounds.

Strengthen Internal Monitoring

In every nuclear power plant we manage, we have established environmental monitoring systems and environmental survey recording systems according to each nuclear power plant's respective *Environmental Supervision and Monitoring Outline* and the requirements of regulatory authorities. We have set up thermoluminescence measurement room, spectrometer measurement room, general discharge measurement room, liquid flash measurement room, sample preparation room, carbonization room, water evaporation room, releasing chemical analysis room, balance room, plant environmental radiation and meteorological monitoring system central station and other environmental monitoring facilities. Targeting surrounding noise, dust, soil erosion, domestic sewage and production sewage and other environmental factors, we regularly conduct monitoring and analysis to analyze the air, water quality, terrestrial biological and marine biological environment in the vicinity of the nuclear power plants. In the meantime, we focus on monitoring the level of environmental radioactivity in and around the nuclear power plants to assess impacts on the surrounding environment, and timely release relevant information to the public for supervision.



- 10 environmental monitoring points were set up within a 10 kilometers radius of the base for continuous monitoring with real-time monitoring data displayed in the exhibition hall of CGN Power headquarter building in Shenzhen.
- Long-term monitoring found no change in environmental radioactivity levels around the base compared to local data before operation

- Five sets of monitoring buoys have been placed in the surrounding waters of Daya Bay to monitor the water quality in real time.
- The quality of seawater remains good, with 97.1% meeting the national requirements for Grade I and II seawater quality.

- Regularly sample and test for air, soil, underground water and biological samples, including 20 kinds of common food such as chicken, fish, litchi, vegetables, radishes, algae, and shellfish.
- No artificial radionuclides were found.

Cooperate with External Supervision

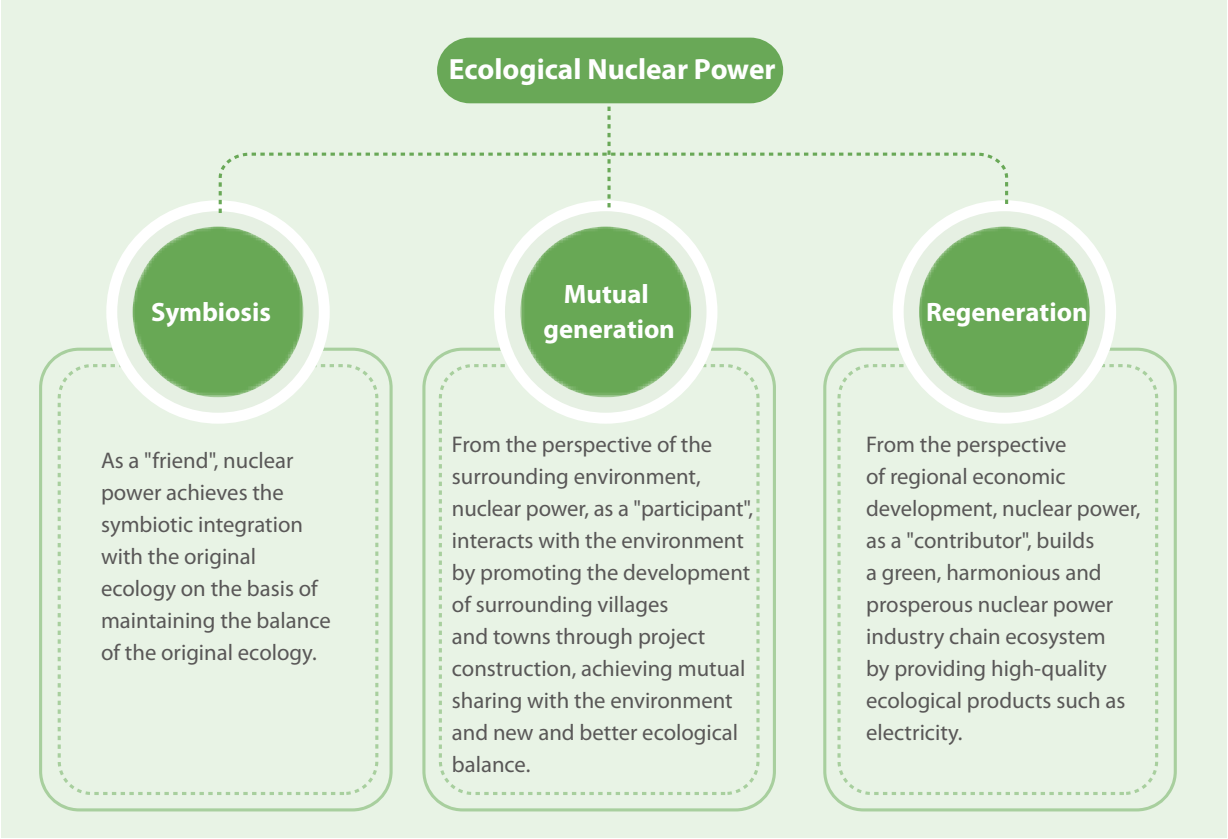
In addition to internal monitoring at the nuclear power plants, we actively cooperate with external supervisory bodies to monitor and release external monitoring data to the public.

As required by the *National Monitoring Plan of Radioactive Environment* and the *Radiation Environmental Monitoring Technical Specifications* (HJ/T 61-2001) to strictly regulate radioactive substances of nuclear power plants, the surrounding radioactive environment of nuclear power plants has been monitored by the nuclear power plant operating unit and the environmental protection system of the province where nuclear power plant is located. Nuclear power plant operating units and the provincial radiation environment monitoring agency of environmental protection authorities are responsible for the "dual-track" monitoring of gaseous, liquid effluents and the peripheral environment to ensure that the ranges of radioactivity data meet the standards. The monitoring results in 2019 indicates that the absorbed dose rate in air measured in the surrounding areas of nuclear power plants in operation was within the local natural background fluctuation range. The activity and concentration of radionuclides in environmental media such as water, soil and organisms around the nuclear power plants remained the same as previous years, and no impact was found on the environment and public health.

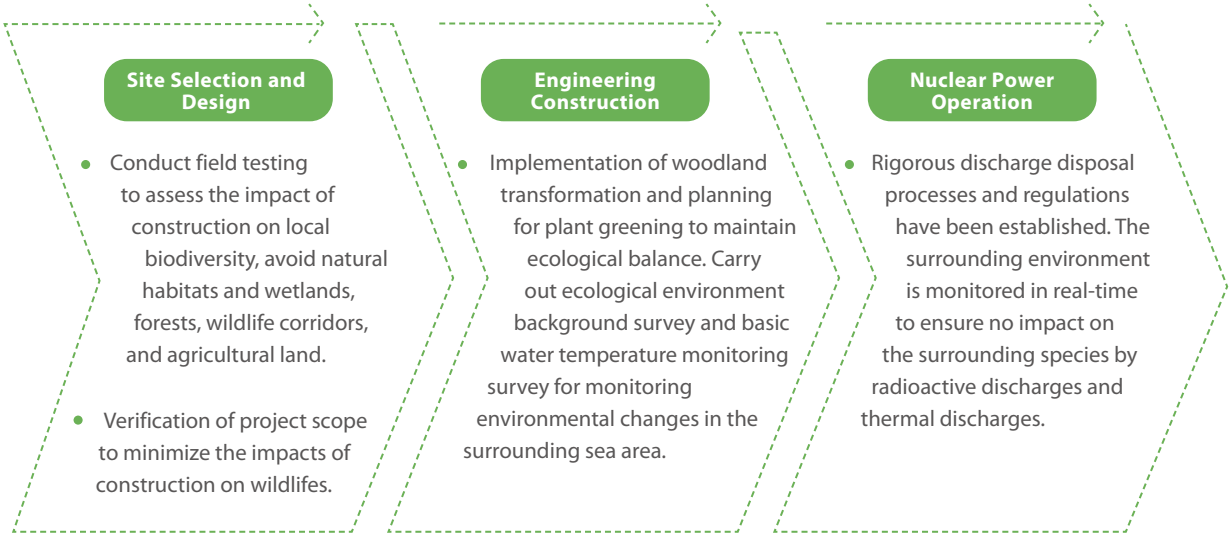
Given Daya Bay Nuclear Power Station's close proximity to Hong Kong, the Hong Kong observatory and other monitoring departments have set up environmental radiation monitoring since the operation of Daya Bay Nuclear Power Station. A total of 12 radiation monitoring stations have been set up in Hong Kong to continuously monitor environmental gamma radiation dose rates, water quality, soil and food. Annual reports have been issued to inform the public of the status of environmental radiation levels in Hong Kong. Years of monitoring results indicated that there has been no increase of artificial radionuclides within Hong Kong since the operation of Daya Bay Nuclear Power Station.

Developing Ecologically-friendly Nuclear Power

Adhering to the concept of harmonious coexistence between nuclear power operation and ecological environment, CGN power is committed to reducing the impacts on biodiversity at different stages of nuclear power plant site selection, design, construction and operation, and has taken various effective measures to protect ecological resources and the surrounding natural ecosystem, so as to accomplish "symbiosis, mutual generation and regeneration".



From initial site selection, planning and design of nuclear power plants, we excluded areas with high biodiversity. During construction and operation, we have conducted measures such as ecological restoration, survey and research of habitats and formulated measures for the protection of animals and plants, thereby protecting biodiversity.



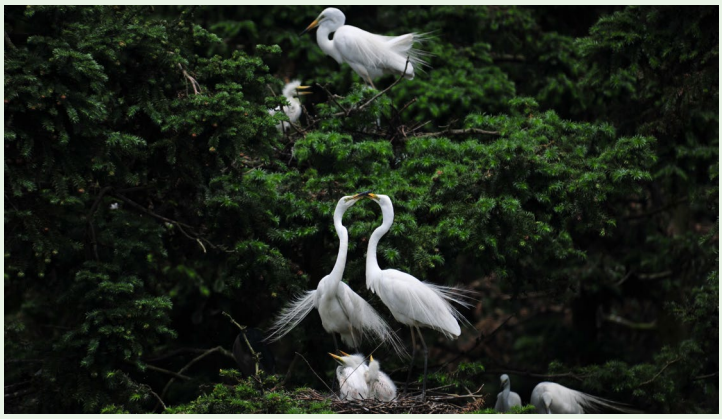
Corals in the Sea Surrounding Daya Bay Nuclear Power Plant

Corals are highly sensitive and vulnerable to changes in sea water quality. Shenzhen Dapeng New Area Coral Conservation Volunteer Federation commissioned coral conservation experts to dive into the waters around the nuclear power plant, and found a wide range of coral species in good conditions, including 15 types of stony coral under national secondary level protection.




Green Bird at Daya Bay Nuclear Power Plant

Egret is a species with very high habitat environment quality requirements. It is among the national "Three-list"of protected animals and enjoys the "Green Bird" reputation. Daya bay nuclear power plant has been engaged in land biological protection and habitat restoration activities. At the turn of every spring and summer, a large number of egrets living here is a good reflection and appreciation of the environmental protection efforts of Daya Bay Nuclear Power Base.



Researching Environmental Technology

In accordance with the principle of "prioritize technology, develop efficiently", we are committed to improving the research and application capabilities of pollution prevention, energy conservation and environmental protection technologies in the field of nuclear power operation. The concepts of "resource conservation" and "environmental friendliness" have been incorporated during the planning phase of engineering construction projects while advanced environmentally friendly technologies were adopted during the construction phase.

Enhancing Environmental Awareness

Employees' awareness of environmental protection is crucial to promoting ecological conservation. We have been carrying out the action plan of environmental education for all employees. Using Arbor Day, World Environment Day and other opportunities, we organize various environmental protection activities and encourage employees to start acting on small items such as saving of every kilowatt hour of electricity, saving of every drop of water and saving of every piece of paper. By inspiring employees to participate in environmental protection, we advocate green lifestyle practices and constantly raise the environmental awareness of employees and the public.

Nuclear Power Engineers Become Sea Guardians for Blue Homeland

Marine pollution is one of the world's top 10 environmental problems. According to the *UN Convention on Biological Diversity*, about 800 tons of garbage enter the ocean every year, and the number of biological species affected has increased to 817. Marine garbage not only poses a threat to the survival of marine life, but also affects the ecosystem.

On July 5, 2019, in the surrounding waters of Daya Bay, DNMC volunteer team sorted and studied the distribution and process of coastal garbage under the guidance of marine environment experts. They cooperated with the School of Environment and Energy of Shenzhen Institute of Peking University to issue a professional research report, which served as the basis for decision-making of relevant departments.

Practice the Concept of Ecological Civilization and Be an Actor in Beautiful China

For the 2019 World Environment Day, Hongyanhe Nuclear planned and carried out a series of themed activities to improve the awareness of environmental protection and attract more people to participate in environmental protection. Many volunteers carried out activities to clean up the environment and fulfilled their environmental commitments with practical actions. At the same time, by recording the theme songs of World Environment Day, we expanded the scope of influence through innovative publicity.

Uniting Talents

We firmly believe that the Company's sustainable development greatly relies on our talented employees. We adhere to the concept of "talent-lead corporate development", treat employees with respect and provide them with a safe and harmonious working environment by enhancing human resources policies, caring for employees' welfare, conducting vocational training and organizing related activities. We adopt these practices to enhance employees' sense of belonging and work together to realize the Company's core values.

>>> Emergency Diesel Unit

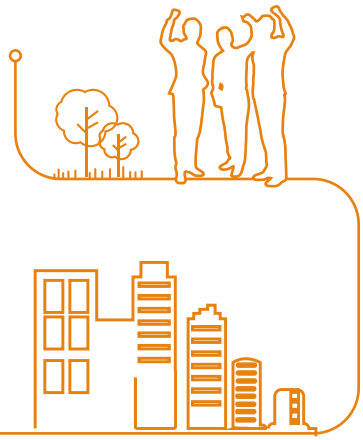
The Company strictly complies with relevant laws and regulations such as the *Company Law of the People's Republic of China,* the *Labor Law of the People's Republic of China,* and the *Labor Contract Law of the People's Republic of China.* Based on its own circumstances, the Company has formulated the *Labor Management System*, the *Recruitment and Employment Staffing Management System*, the *Professional and Technical Staff Recruitment Management System*, the *Management Staff Selection and Appointment Management System*, the *Salary Management System*, the *Employee Performance Management System* and other employee management systems to regulate salary, recruitment, dismissal, promotion, working hours, holidays, benefits, codes of conduct and professional ethics.

Caring for Employees

Recruiting Outstanding Talents

In order to meet the Company's business development needs and desirable team structure, the Company has prepared the *Human Resources Plan* to recruit talents through combinations of campus recruitment and social recruitment with the principles of openness, fairness and impartiality. After the recruitment announcement, we screen and review resumes, arrange telephone interviews, perform written tests, and conduct background checks. Candidates who successfully pass the assessments will be hired. We respect employee differences and will not discriminate based on race, gender, age, religion, ethnicity, or any other factors.

During the recruitment process, the Company strictly examines the applicant's identity information to prevent candidates under the age of 16 from participating in the process, eliminating child labor and all forms of forced labor. During the Reporting Period, we strictly complied with relevant laws and regulations and the Company's employment system, and did not have any child labor or forced labor.



Employee social security coverage rate:

Social Security **100%**

Employee social insurance covers:

medical, pension, unemployment, work injury and paternity insurance

Employee average annual leave:

12 business days

Female employees' paid maternity leave:

statutory leave

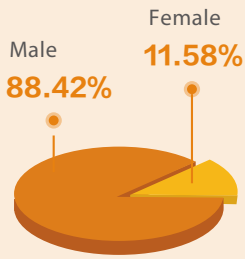
Male employees' paid paternity leave:

15 business days

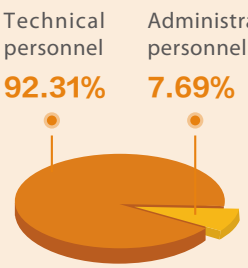
During the Reporting Period, CGN Power's Total Number of Employees(not including affiliated companies): **18,383**

Proportions of Different Types of Employees

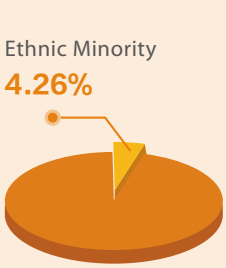
By Gender



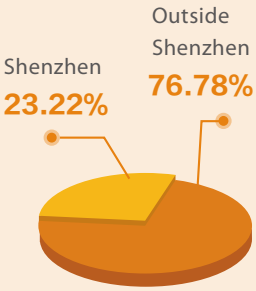
By Employee Category



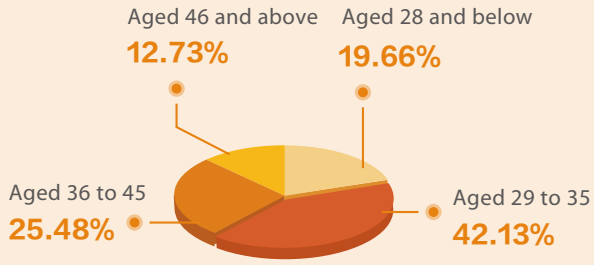
Ethnic Minority



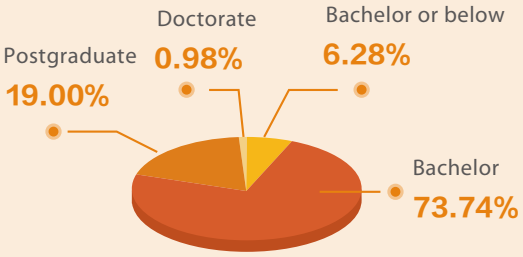
By Region



By Age



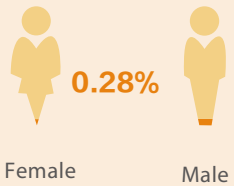
By Academic Background



Employee Turnover Rate: **2.24%**

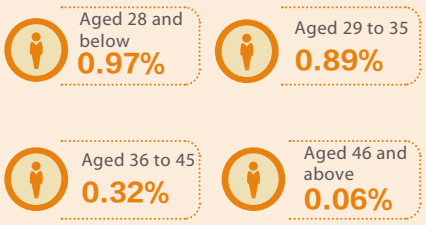
Employee Turnover

By Gender



By Region

By Age



Implementing Democratic Management

In order to accomplish employee democratic management, the Company strictly complies with the *Regulations on Democratic Management of Enterprises* (ACFTU [2012] No. 12), the *Regulations on Workers' Congress of Industrial Enterprises under the Ownership of the People*, the *All-China Federation of Trade Unions on Strengthening the Democratic Management of Corporate Enterprises Opinions* (ACFTU [2012] No. 78), the *Guiding Opinions of the State-owned Assets Supervision and Administration Commission Party Committee and the State-owned Assets Supervision and Administration Commission on Establishing and Improving the Staff and Workers Congress System of Central Enterprises*" (SASAC Party Committee [2007] No. 120), the *Notice on Regulations of the Grassroots Trade Union Member Conference* issued by the Federation of Trade Unions (ACFTU [2019] No. 6) and other rules and regulations to establish a "Workers Congress". It enables employee representatives to participate in business decision-making, management, supervision of management team and exercise of democratic rights, achieving democracy in employee management.

During the Reporting Period, in the two workers congress held by the Company, employee representatives elected the Company's employee supervisors, reviewed and approved the *Professional and Technical Post Appointment Management System*, listened and reviewed the Company's 2018 financial statements and reviewed the Company's 2019 financial budget report.

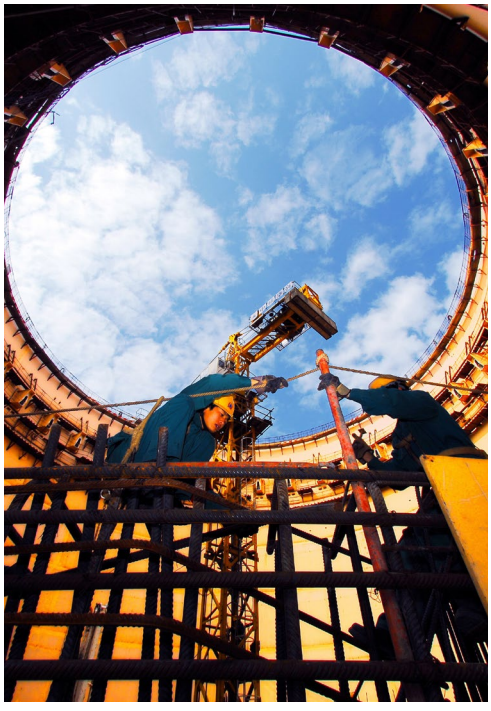
Establishing Multi-channel Communication

A multi-channel communication mechanism has been established between the management team and the employees. The management team regularly visits various projects to understand employees' needs. At the same time, employees provide their opinions or suggestions to their superiors through the Party branch, labor union, and League branch.

CGN Engineering "Harmony"

The event "Meeting with the General Manager" allows employees to meet with the general manager regularly to communicate issues such as corporate strategy, business management, development mechanism, welfare, and other issues that are closely related to the Company's and employees' development.

There were more than 300 employees participated in the 2019 communication event. Employees conducted in-depth discussions with the management team on issues such as corporate strategy, business management, personal development, compensation and benefits, and put forward their suggestions and ideas. The management team and employees regularly meet in such event to directly deal with issues raised from employees. For issues that required strategic consideration, they would be followed up subsequently by relevant departments. The event is widely recognized by employees. This kind of communication channel not only allows the Company's management team to better understand employees' thoughts, but also enables employees to better understand management team's ideas and company planning, enhancing cohesion within the Company.



>>> Under the sky

Maintaining Work-life Balance

Adhering to the "people-orientated" concept, the Company actively organizes cultural and sports activities to enrich life of employees, alleviate work pressure, enhance employee connections and improve team spirit to achieve work life balance.

Taishan Nuclear Power Station Hosted China -France Friendly Football Match

The year of 2019 marks the 55th anniversary of the establishment of diplomatic relations between China and France. A friendly football match took place on June 20, 2019, at Taishan Nuclear Power Station. The two teams were composed of Chinese and French employees working at the station. The game was very exciting and looks like a large family gathering.

Hongyanhe Nuclear Successfully Held a Half Marathon

The Hongyanhe Nuclear half marathon was held at Hongyanhe Nuclear Base on June 15, 2019. Over 900 players in Dalian from more than 20 cooperative units such as Hongyanhe Nuclear participated in this competition. It provided a great opportunity for participants to enhance team cohesion, exercise and stimulate enthusiasm.

Occupational Health and Safety

Health and safety are the cornerstones of the Company's development and employees' happiness. The Company strictly abides by relevant laws and regulations such as the *Safe Production Law of the People's Republic of China,* the *Fire Control Law of the People's Republic of China,* the *Law on Prevention and Control of Occupational Diseases of the People's Republic of China* and the *Interim Provisions on the Supervision and Management of Work Safety at Central Enterprises* to implement the "safety first, prevention-oriented and comprehensive governance" management policy. Adhering to the principle of "safety management must be included in the production management", the Company actively adopts measures to ensure employees' health and safety and to prioritize health and safety for all operations.

During the Reporting Period, we achieved desirable results in occupational health and safety management. The specific management measures and data related to safety are detailed in the section "Guarding Nuclear Power Safety" of this Report.

Health and Safety Management System

All of the Company's nuclear power plants have established a dedicated department to manage occupational health and safety, and have all obtained the OHSAS 18000 occupational safety management system certification. With the ISO 45001 Occupational Safety Management System Standard newly issued by the International Standardization Organization in 2018, a number of our nuclear power plants have already taken the lead in obtaining certification for the new standard in 2019. All nuclear power plants are expected to obtain ISO 45001 certification by 2022.

The occupational health and safety management system includes identification and management of occupational hazard, full staff participation and prevention, third party inspections and safety warning, promotion and training. We have extensively benchmarked with domestic and foreign peers, actively established and promoted safety operation standardization, and continuously improved the occupational health and safety management system. We continue to carry out self-checking and occupational health evaluation in daily operation to identify and evaluate occupational hazards in each work process, and manage identified hazards according to their risk levels. To effectively reduce and control occupational health and safety risks, a series of measures such as technology, management and personal protection have been adopted to ensure the health and safety of employees.

All nuclear power plants have involved contractors' participation in construction, operation, maintenance and other activities. The occupational health and safety management system is therefore also applicable to contractor personnel and whoever carries out work at the operating sites.

>>> Technicians Performing Equipment Maintenance

Protecting Employee Safety

To protect employees' safety with a robust occupational safety and health protection system, the company has formulated the Occupational Safety Management System and various other control measures to standardize safety operations, ensuring health and safety in daily work. Annual routine health check-ups have been arranged and personal health files have been established for all employees. The Company has engaged with third-party professional organizations to conduct additional occupational health inspections (including audiometry, electric pure tone listening, lung function, visual, long bone X-rays, etc.) for some front-line employees (including work involving radioactivity, noise, high temperature, chemicals, electricians, operations at height, etc.). For retired employees, we also provide comprehensive health check and tracking services to protect their physical condition after their retirement.

During the Reporting Period, the Company provided

1,300

times of medical examinations and follow-up services to retired employees.

The values of Maximum Individual Radiation Dose by person[14] for those (including employees, contractors and others) entering the control area of the nuclear power plants operated and managed by the Company are all lower than the national and international standards:

Maximum Radiation Dose Received by Personnel in NPPs (in millisieverts)

NPP/ Unit	2017	2018	2019
Daya Bay Nuclear Power Station	6.76	5.11	9.14
Ling'ao Nuclear Power Station	6.61	10.32	6.94
Lingdong Nuclear Power Station	7.67	5.25	5.81
Yangjiang Nuclear Power Station	7.89	8.11	11.82
Units 1, 2, 3 & 4 of Hongyanhe Nuclear Power Station	7.80	7.60	8.79
Ningde Nuclear Power Station	8.62	8.00	8.72
Units 1& 2 of Fangchenggang Nuclear Power Station	8.03	3.59	4.10
Taishan Nuclear Power Station	N/A	0.29	1.01

[14] The annual refueling outage is the key factor affecting the individual radiation exposure of all NPPs.

>>>Taishan Nuclear Base

Maintaining Mental Health

Mental health is equally important to physical health. We have introduced the "Employee Assistance Program" to provide employees with 7x24 hours counselling services.

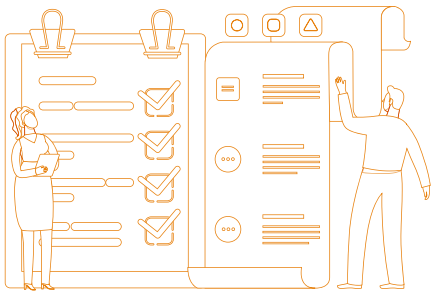
Maintaining Mental Health

The Employee Assistance Program ("**EAP**") focuses on employees' personal development, life enrichment, knowledge enhancement, and improvement in quality of life. The Company invited professionals to provide professional services such as consulting and counselling to employees, aiming to help them to achieve happiness in both the workplace and in their personal lives. The Company has thoroughly implemented the "people-orientated" and "general development of mental health services for professions" spirit of the Party Central Committee for an advanced development on EAP.

During the Reporting Period, we provided counselling services for those in need. Accumulatively, more than 1,600 persons have been supported.

Fostering Employee Development

Promoting employee development is essential to the Company's development. Targeted trainings and clear career development paths could effectively bring out employees' best potential to achieve common growth.



Enhancing Training Systems

Adhering to the concept of "full-staff training, authorized before assignment and lifelong learning" and combining the nature of nuclear power business, the Company has established training systems including leadership training, engineering training and operation training with the aim to provide employees with multi-channel, multi-form, and multi-level skill trainings.

Professional Training KPIs

The *Nuclear Safety Law* stipulates that nuclear power plant operation must be performed by licensed personnel. As of December 31, 2019, the Company (including affiliated companies) has 534 licensed reactor operators and 877 licensed senior reactor operators, which can meet the staff requirement of tens of nuclear power units operating at the same time. CGN Power has always been providing employees with trainings to improve work efficiency and to enhance professional skills, so as to deliver value, strength, professional skills and self-worth for employees.

The Company has designed a management position transformation program – Egret Program for each management level. The program is designed based on aspects of role change, managerial skills, organizational knowledge and skills to ensure smooth transition for managers at all levels during the transition period. In addition, we have also established engineering and operation related trainings to enhance employees' professional skills and introduce standardized operating methods.

The average training time per employee

146 hours

The training rate of senior-level management member

100%

The training rates of male and female employees are both

100%

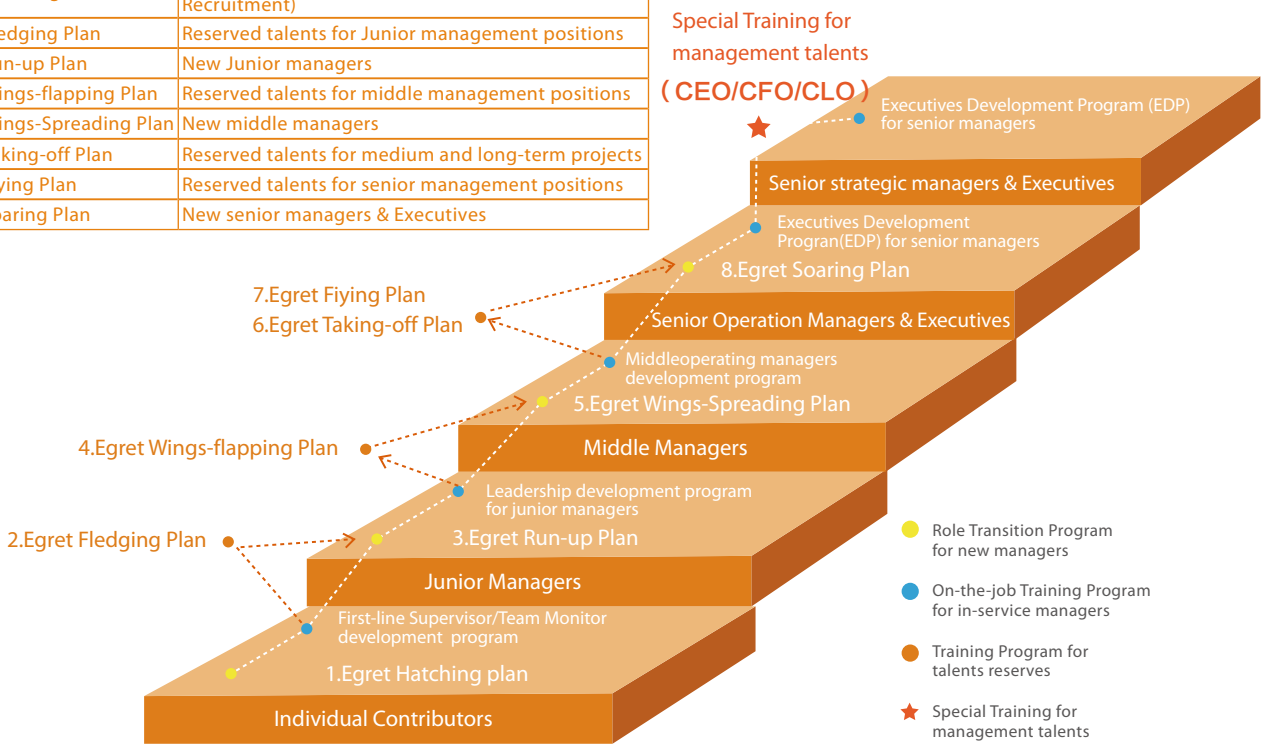
The training rate of middle-level management member

100%

Talent Development Management System

CGN Power Leadership Training - Egret Program

	Plan	Targeted Trainee
1	Egret Hatching Plan	New Employee (Campus Recruitment/social Recruitment)
2	Egret Fledging Plan	Reserved talents for Junior management positions
3	Egret Run-up Plan	New Junior managers
4	Egret Wings-flapping Plan	Reserved talents for middle management positions
5	Egret Wings-Spreading Plan	New middle managers
6	Egret Taking-off Plan	Reserved talents for medium and long-term projects
7	Egret Flying Plan	Reserved talents for senior management positions
8	Egret Soaring Plan	New senior managers & Executives



Employee - Senior Manager Transition Training Program

New Employee Transition Training

Role Change Training
Campus recruit: students → professionals/Social recruit: professionals – CGN Power Employee.

Company and working environment training
industry、business、history、procedure、resources utilization, etc.

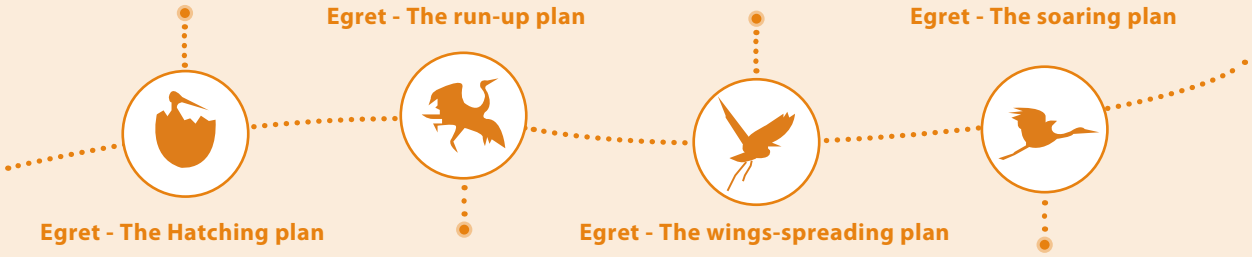
Entry-level professional training
communication、workplace etiquette、time management、presentation.

New Mid-level Manager Transition Training

Management role transition training
Complete transition from managing other to managing manager and manager functions.

Mid-level Manager working environment training
Systems、procedure、authorization、management tools, etc.

Mid-level managerial skills
Authorization responsibility、scenario leadership、develop successful teams、cross-departments collaboration、efficient decision-making.



New Junior-level Manager Transition Training

Management role transition training
Complete transition from individual contributor to managing others.

Junior-level Manager working environment training
Systems、procedure、authorization、management tools, etc.

Junior-level managerial skills
Mentor/motivate subordinates、select talents、KPI management、task distribution and monitoring、meeting hosting、problem analysis and resolution, etc.

New Senior -level Manager Transition Training

Management role transition training
Complete transition from manger functions to managing business units (BU) and office units (OU).

Operation senior-level manager working environment training
Systems、procedure、authorization、management tools, etc.

Senior-level managerial skills
Strategic consideration、organizational resource consolidation、drive changes、 cultivate talents and optimize procedures, etc.

2019 Egret Progam Achievement

	Target	Progress
Egrets – The Hatching plan	Accelerate role change for new employees	Ongoing
Egrets – The run-up plan	Enhance junior-level managers' managerial skills	14 sessions
Egrets – The wings-spreading plan	Enhance mid-level managers' human resources managerial skills	7 sessions
Egrets - The flying plan Egret –The taking-off plan	Broaden horizon, enhance managerial skills for future senior managers	The 2nd session started in 2018 and completed in September 2019

Engineering Training– "AE Training Alliance"

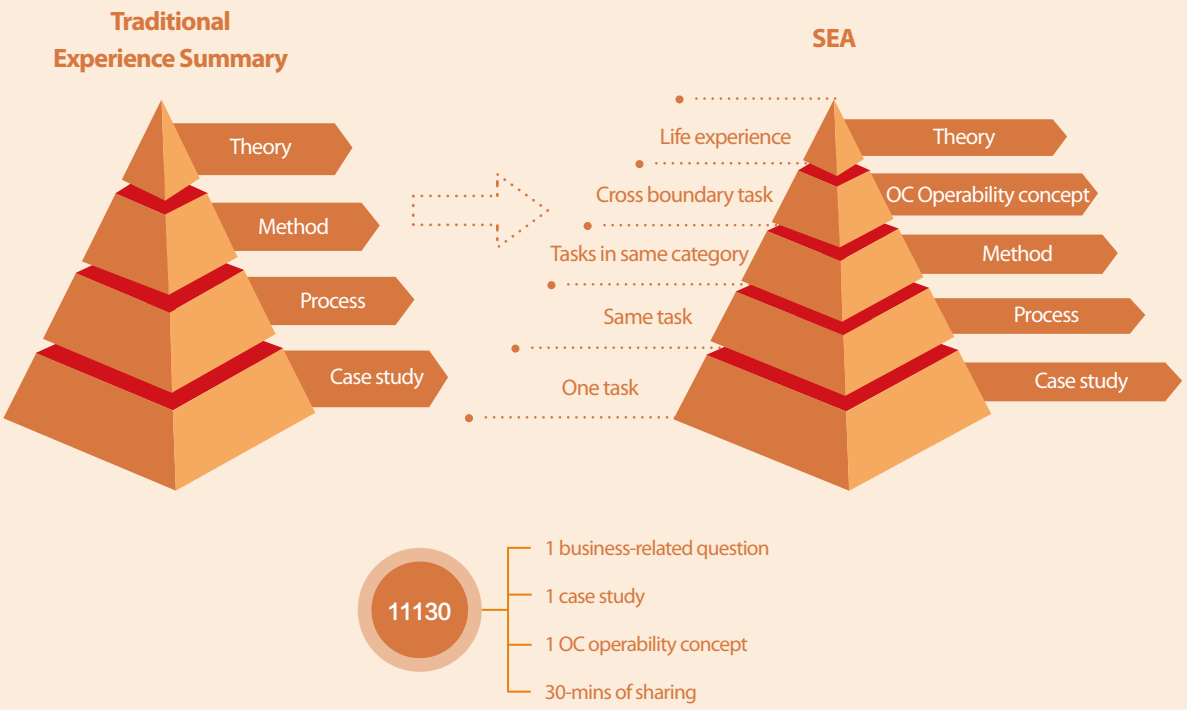
The level of safety and quality in the nuclear power industry supply chain varies widely. In order to improve personnel skills in the industry, CGN Engineering initiated and united with more than 40 units to establish the "AE Training Alliance" with the goal to improve and ensure the safety and quality level of nuclear power construction projects and related personnel. There is a total of 19 courses including safety, quality, design, procurement and construction.

The Alliance has provided quality and safety certification trainings for over 400 quality and safety managers between 2017 and 2019. Trainees who have passed the certification training will subsequently carry out specialized training in their units. Through this mechanism, trainings have been provided to accumulatively over 5,000 engineering design and management personnel, and over 240,000 industrial technicians, which improve the professional skills and management capabilities in the industry chain and ensure the steady growth of nuclear power performance.

Operational Training – "SEA"

Based on experience feedback and innovative management model, the "Share, Experience and Arouse ("**SEA**")"learning method of Taishan Nuclear is designed for facilitating rapid learning and ability improvement.

The SEA project team has designed the "11130" platform operation system based on research of various domestic enterprises and universities, enabling operational standardization for quality control.



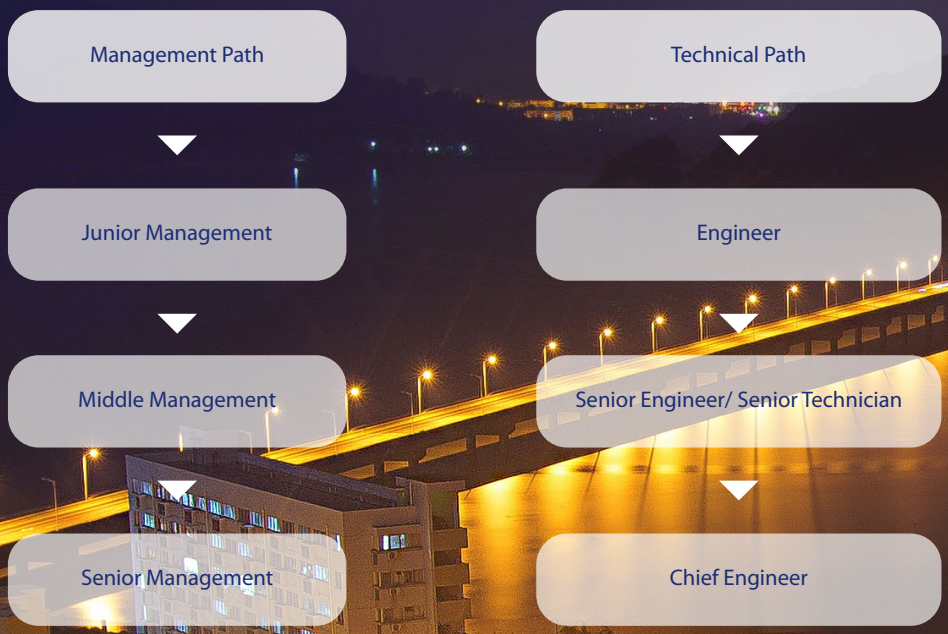
National Nuclear Safety Administration Nuclear Power Training

On January 16, 2019, the closing ceremony of the 10th intermediate training course on nuclear and radiation safety supervised by the National Nuclear Safety Administration was held at Yangjiang Nuclear Power. This training was jointly organized and implemented by DNMC and CGN Engineering. It lasted for 3 months and covered the lifecycle of nuclear power including construction, production and operation. Special topics are added accordingly to characteristics of each session. For example, the topic of supervision was added to further enrich the training content and make the course more target orientated.

Advancing Career Development System

We highly value career development for each of our employee and work with them individually to design a career development plan. We have established the dual-track career development system in both management and technical paths, setting up a conversion mechanism between the two paths to meet employees' development needs. The switchover mechanism forms a link of "Position Categories — Development Path — Employee Aspiration — Employee Flow" so that employees can achieve their own career development according to their competence, potential and characteristics.

Dual-Channel Career Development System



>>>Cross-sea Bridge – Ningde Nuclear

Advocating the Craftsman's Spirit

The new craftsman's spirit is a concept of meticulous care, excellence, and continuous innovation. We have been adhering to the core value of "doing things right in one go" and advocating employees to treat every task with a meticulous and dedicated work attitude like craftsmen, and therefore to constantly create new ideas for nuclear power projects. Over the years, the Company has been committed to establishing a platform and environment for craftsmen to grow their talents, nurturing a number of outstanding teams with exceptional talents.

CGN Power Craftsmen

Ran Di

Ran Di is the senior technician at the operating site of DNMC. He has been awarded the "Youth Professional" by the Central Enterprise League Working Committee and the first round of CGN craftsman honor.

Field operations involve with multiple systems and thousands of devices. Although without a strong academic background, he has devoted himself to t echnologicalresearch , discovery of hidden equipment defects, resolution of long-term challenges and cost-savings for the Company.

Chen Yongwei

Chen Yongwei who works for CGN Operations has won the "China Electric Outstanding Young Scientific and Technological Talent Award" in the "2019 Electric Power Science and Technology Award Competition" issued by the China Electrical Engineering Society annual conference.

Chen Yongwei has applied and obtained about 30 patents. He has also won various honorary titles such as the "China National Technical Expert in Electric Power Industry", "Central Enterprise League Working Committee Youth Professional" and "Technical Expert in Guangdong Province". He has also been successfully selected by the China Association for Science and Technology in the youth talent promotion project.

Wang Jiantao

Wang Jiantao has been working in the nuclear power industry for more than 20 years. He is currently the maintenance engineer at CGN Operations. He has filed for more than 100 international and national patents. He has received honors such as the "National Technical Expert", "Excellent Young Electric Engineer of China", "China Power Industry Equipment Management Senior Expert" "Central Enterprise League Working Committee Youth Professional", "National May 1st Labor Medal", "Pengcheng Craftsman", "High-level Talent in Shenzhen", and "Top 10 Youth in Shenzhen".

Collaborating for Sustainable Development

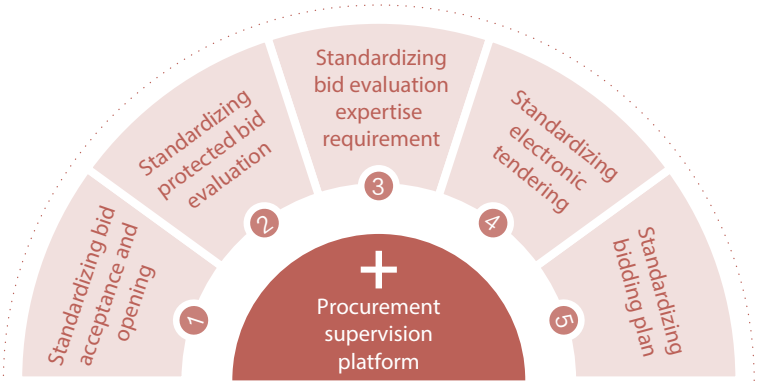
We believe that in addition to CGN Power's own efforts to promote nuclear power development, we also need to cooperate with governments, enterprises and professional institutions to share and exchange existing advantages and technologies in different forms, so as to accomplish the common development of nuclear power clean energy domestically and internationally.

>>>Taishan Nuclear Base

Optimizing Supply Chain Management

Effective supplier management can promote win-win collaborations in the nuclear power industry. We actively respond to the national procurement management by strictly complying with the laws and regulations such as the *Law on Tenders and Bids of the People's Republic of China*, and following rules of fairness, openness and justice. We advocate "sunshine procurement", continue to establish and improve the biding system, and fully implement the concept of responsible procurememt.

During the Reporting Period, CGN Power introduced 995 new suppliers, removed qualified suppliers according to the Company's supplier elimination mechanism, increasing the total number of qualified suppliers to 6,686. Among them, 6,244 are domestic suppliers, covering multiple provinces and municipalities. To achieve more effective regulations, we have developed the E-commerce Platform ("**ECP**"), which unifies the acceptance and opening of bids through the electronic platform and conducts completely closed bid evaluation to improve transparency, standardizing the entire bidding and procurement process. The platform operates in accordance with the "five standardizations and one supervision", in which the expert pool is composed of more than 5,100 experts from 121 specialties who are responsible for supervising the bid evaluation process to ensure fairness and justice.



Supplier Classification

There is a large number of suppliers and they have been divided into three categories in the management system as: "Potential Suppliers", "Qualified Suppliers" and "Blacklisted Suppliers"
Potential Suppliers: suppliers that have not been accredited or whose accreditation has expired
Qualified Suppliers: suppliers that have passed the qualification review
Blacklisted Suppliers: suppliers that have seriously violated the relevant laws, regulations or management requirements in procurement activities

There are subdivision control measures for qualified suppliers and blacklisted suppliers.

Qualified Suppliers

Class I Suppliers	Class II Suppliers	Class III Suppliers
Suppliers providing engineering goods and services related to nuclear safety and availability	Suppliers providing engineering, goods and services directly related to operation	Suppliers which do not fall into Class I / or Class II categories

Blacklisted Suppliers

1. If the Blacklisted Supplier's misconduct does not materially hinder the execution of the existing contract, it shall ensure the normal performance of the contract; At the time it is blacklisted, suppliers that are in the course of bidding or submission of offers will be disqualified. Blacklisted Suppliers are banned from procurement activities for three years.
2. When a Blacklisted Supplier turns into a Potential Supplier after the ban, our subsidiaries and affiliated companies should use this supplier with due care.
3. During the period when the Blacklisted Supplier is banned, if our subsidiaries and affiliated companies have to use the supplier due to special needs, they shall evaluate the risks and clarify the countermeasures, obtain the approval of the Company's management . The application for signing a one-time cooperation plan can be submitted after re-passing the qualification review.

A total of 22 suppliers were blacklisted during 2019.

Supplier Review

The suppliers must pass the qualification evaluation before cooperating with the Company. The methods of qualification assessment include document qualification, source qualification and other qualifications.

Document Qualification

We send qualification documents to suppliers and determine whether they are qualified for bidding and performing the contract according to their returning documents. The main evaluation factors include basic qualification, supplier performance, safety, quality, environment, technical level, financial situation, etc.

Source Qualification

For suppliers that require source qualification, after passing the document qualification, source qualification will be conducted at the supplier's location as needed, including factors such as safety, quality, environment, technology and business.

According to the supplier's intended supply category, the corresponding review strategy is adopted and independent written opinions are issued.

Other Qualification

Due to the nature of different businesses, each company can freely choose to engage with external agencies to assess, simplifying the qualification process or using other special assessment methods. Each company should clearly stipulate the corresponding provisions in the detailed implementation rules.

To ensure partners' compliance with laws and requirements in the supply chain, performance evaluations are conducted by the Company for all suppliers at least once a year, covering seven dimensions: technology, quality, cost, delivery, service, environmental protection and social responsibility. All evaluation results are recorded and archived on ECP. For suppliers participating in operational maintenance and engineering construction of nuclear power plants, a standardized performance evaluation system will be established based on business characteristics, which is consistent with the company's procurement strategy.

Supplier Training

We regularly provide trainings for suppliers to deepen their understanding of CGN Power's requirement and culture, promote two-way communication, enhance nuclear safety and foster exchange and sharing of experiences and resources, promoting sustainable development of the supply chain. Trainings include corporate culture, supplier management, ECP implementation, CA application, procurement and bidding management, etc.

Promoting Green Supply Chain

CGN Power's suppliers are required to strictly comply with the national environmental regulations. Suppliers shall strive in accordance with relevant standards and requirements of ISO 14001 on aspects such as control materials, resources consumption, wastes generation, environmentally friendly processes, recycling and utilization, and environmental protection, reducing the impacts of operation on the environment.

In order to implement the key tasks, CGN Engineering has established and implemented the *CGN Engineering Green Industrial Chain Management Rules* during this Reporting Period. It requires each business center and project implementation unit to designate responsibility for departments in the green industry chain, arrange special personnel to promote the effective implementation of management rules and incorporate the green industry chain management requirements into departmental procedures or systems to achieve green industry chain management in daily work processes. CGN Engineering focuses on the management of green industry chain through supplier management and adopts effective measures in the aspects of qualification review, bid evaluation, contract execution, supplier evaluation, spare parts management, etc., promoting the co-development of the green supply chain.

Since the third quarter of 2019, environmental factors have been included in the qualification reviews for all suppliers with 100% coverage. In the tender document, we require bidders to include green nuclear power elements in the submitted technical proposals, and incorporate evaluation of design proposals, raw material selection, subcontractor selection, manufacturing processes, packaging, recycling and other aspects into the scoring criteria.

>>>Sunset- Ningde Nuclear

Fostering Industry Development

CGN Power is a member of multiple industry organizations. Through various forms of consortium, we actively establish close cooperation with governments, enterprises and professional institutions to fully leverage our advantages in the nuclear power industry. The power market reform has intensified market competition and raised higher requirements for CGN Power's business. Through good interactions with our partners, CGN Power has continuously improved its operation capacity and promoted industry development.

The China-France Economic Summit Laid Foundation for Cooperation

Promoting green development and tackling climate changes have become global issues. With the nuclear power industry's broad prospects, there is huge potential for further China-France cooperation. Thirty years ago, the construction of Daya Bay Nuclear Power Station opened the door for China-France nuclear energy cooperation and laid a solid foundation for China's nuclear power industry to start from an excellent position. Ten years ago, the Unit 1 & 2 of Taishan Nuclear Power Station were jointly developed by EDF and CGN Power. These two units have been operating stably since their commercial operation, which reflects the high quality of project construction. This project has also become a benchmark for global nuclear power construction projects. CGN Power will continue to deepen cooperation in R&D and operation of nuclear power.

>>>Ningde Nuclear Night View

Guangdong-Hong Kong-Macao Greater Bay Area Electric Power Cooperation Agreement

The Guangdong-Hong Kong-Macao Greater Bay Area is a dynamic and internationally competitive first class bay area and a world-class city cluster with great potential opportunities for energy development. Southern Power Grid organized 71 electric power industry associations, scientific research institutions and enterprises to launch a power cooperation initiative to serve the Greater Bay Area. The cooperation initiative aims to advocate a green and low-carbon way of life and work, making this area a world-class exemplar area for clean energy utilization and helping to build a clean, low-carbon, safe and efficient energy system. CGN Power will make greater effort to promote the high-quality development of clean energy in the Greater Bay Area, cooperates to formulate specialty plans for energy development, focuses on energy structure optimization, energy interconnection, energy conservation and emission reduction, and promotes the use of nuclear power.

CNPRI Launches the "Engineering and Technology Research Center for Flexible Seal and Nuclear Protective Materials" in Sichuan Province

On October 18, 2019, the "Engineering and Technology Research Center for Flexible Seal and Nuclear Protective Materials" in Sichuan Province was successfully established. It is jointly found by CGN Power and Shengbang Seals Co. Ltd.

The establishment of this center will focus on the high-end powertrain, smart grid and nuclear industry in areas such as flexible seal and nuclear protective materials and products. This can close the gap in supply domestically and replace the need of imported materials. It plays an important role in promoting development of clean energy diversity, intelligent power transmission and economical use of energy. In the meantime, with the help of this platform, both parties will jointly promote technological innovation and application in the field of nuclear power protection and commit to providing users with overall solutions in radiation protection.

>>>Ningde Nuclear Employee's Family

Creating a Harmonious Community

Building harmonious communities requires collective efforts. CGN Power is committed to ensuring the safe and stable operation of nuclear power, creating corporate value while fostering community development and fulfilling its corporate social responsibility. We pursue the "3N" community development concept of "safe neighbor", "friendly neighbor", and "warm neighbor" and actively participate in community affairs. We maintain regular communication with the public in order to understand their needs, protect their interests and serve and give back to the community, building a harmonious relationship in the community. At the same time, by contributing our corporate resources, we actively cooperate with the national poverty alleviation policy and provide our support to socially disadvantaged groups.

3N Harmonious Community

N=Neighbor

Safe	Friendly	Warm
Safety information disclosure Safety communication activities	Protect ecological environment Promote human development	Lead community progress Support residents' health

Strengthening Community Communication

On the basis of effective communication and transparent information disclosure, we actively refine communication mechanism with the community through multiple communication channels, building public trust and strengthening their understanding of nuclear power.

Enhancing Communication Channels

We are committed to promoting the openness and transparency of information disclosure and enhancing public understanding and trust in the operation of nuclear power. According to characteristics of each community, platforms for communication with the public have been established. We have also established a nuclear power safety reporting and disclosure system to further enhance communication effectiveness. For the various communication channels, please refers to the section "Continuous and Responsible Communication".

Press conferences, Weibo, WeChat, open days are platforms that we use to communicate and receive feedback from the community with regard to major concerns about nuclear power development, ensuring the public's right to know and enabling public supervision on the safe operation of nuclear power. The Company's nuclear power base website publishes monthly operation data and nuclear safety information on the internet. All zero level or above operating events will be announced within two working days (72 hours during holidays).

CGN Power's Award-Winning Communication Channels

CGN Power is widely recognized by the power industry experts in transparent communication, responsible information dissemination and innovative communication. On November 22, 2019, at the 6th China Power Industry Corporation Public Transparency Summit, Ningde Nuclear, DNMC, and CGN Operations were awarded the China Power Industry Excellent Enterprise in Transparency Management, Excellent Enterprise in Responsible and Innovative Communication and Excellent Enterprise in New Media Dissemination, respectively.

14
Permanent exhibition halls

Accumulatively over
80,000 public visitors

More than
110,000 students
from
208 schools participated in the "nuclear science popularization on campus and in the classroom" activities.

Popularizing Nuclear Science

CGN Power has always taken the responsibility to popularize the public's understanding of nuclear power. Each nuclear power base has set up its nuclear power exhibition hall. The exhibition halls enable the public to understand the development of nuclear power in a variety of interesting forms, and enhance their awareness of nuclear power safety and low-carbon environmental protection.

During the Reporting Period, we continue to promote nuclear power science popularization in campuses and classrooms for primary and secondary school students. This campus program has been promoted in schools nearby the nuclear power plants, including Guangdong Province, Liaoning Province, Fujian Province and Guangxi Zhuang Autonomous Region with continuous expansion. As of December 31, 2019, more than 110,000 students from 208 schools participated in the program.

Macau Youth Tour at Taishan Nuclear Power

75 members from the Macau government and youth representatives visited the Taishan Nuclear Power Base on June 2, 2019 to learn about nuclear power, safety culture, and construction and operation of Taishan Nuclear Power Station as the world's first EPR reactor. The youth representatives participated in the human error prevention tool training and used the tools such as "monitoring operation" and "three-stage communication" to experience the rigorous working environment at NPPs.

Media NPP Tour

Media reporters were invited to visit the nuclear power bases to launch a series of promotion reports. The visits aimed to explain to the public the importance of nuclear power safety and efficiency in relation to economic development. It also conveyed the concept of green and safe development as well as our dedications and commitments in shouldering our social responsibilities.

Fighting for Poverty Alleviation

Leveraging our corporate resources and platforms, we continue to explore public welfare methods that are in line with the social and development background, building a harmonious and warm society. Poverty alleviation is one of the three major battles that must be fought for a moderately well-off society. We followed documents such as the *Decision of the CPC Central Committee and the State Council on Winning the Battle against Poverty* and the *Guiding Opinion of the General Office of the CPC Central Committee and the General Office of the State Council on Further Strengthening the Poverty Alleviation Work of Central Enterprises* and the requirement of "leaving no one behind in poverty alleviation". We are actively engaging in the battle of poverty alleviation and earnestly fulfill our social responsibilities by understanding the needs of underdeveloped areas, donating funds and goods, participating in infrastructure development, organizing multiple special recruitments and volunteering events at the nuclear power plants, supporting residents on solving employment problems and improving life quality.

During the Reporting Period, the Company fully supported and implemented poverty alleviation in the designated sites, namely Lingyun County and Leye County of Baise City in Guangxi Zhuang Autonomous Province, eastern and western poverty alleviation assistance area of Gumluo Village of Liangshan Region in Sichuan Province; Kongtong Village of Yangjiang City in Guangdong Province and Liao Cuo Village and Ming Yang Village of Gutian County in Fujian Province. As of now, the Company has 13 poverty alleviation cadres working at the designated sites.

2019 Major Work in Poverty Alleviation

Lingyun and Leye County, Baise City, Guangxi Zhuang Autonomous Province

- Chen Yang has been selected to serve on the Lingyun County Standing Committee and as Deputy County Executive. Zhang Wei has been selected to serve as the First Secretary of Longhuai Village, Jiayou Town, Lingyun County.
- Adhere to the concept of combining "mindset, wisdom and skill support" to further implement the "Egret Class" program. Employees donated spontaneously and implemented the "Rainbow Project" at Langjin Primary School. The project focused on academic growth, physical and mental health, social and family care, providing care and poverty alleviation to the children whose parents are away from home for work. Continuously provide industrial support to the silkworm breeding project in Lingyun County and the kiwi fruit project in Leye County.
- At the end of 2018, the poverty rates in Lingyun and Leye County have dropped from 6.21% and 8.17% to 1.6% and 1.81%, respectively. By the end of 2019, Lingyun County has already been qualified to be lifted out of poverty. Leye County is expected to be lifted out of poverty as planned in 2020.

2019 Achievements in Poverty Alleviation

Overall capital investment

RMB **18.54** million

Industrial poverty alleviation project investment

RMB **7.4** million

Number of vocational skill trainees

828 person-times

Funding for disadvantaged students

RMB **3.72** million

Amount invested in designated poverty alleviation work

RMB **6.49** million

Awards

Rainbow project won the bronze medal in the 2019 China Charity Project competition.

Yangjiang Nuclear was awarded the "2016-2018 Outstanding Contribution Unit" issued by Guangdong Poverty Alleviation Office.

Invested

RMB **1.5** million

to run the "CGN Ethnic Minority Egret Class" in Puge County, Liangshan Region, Sichuan Province.

Gumuluo Village, Tergu Township, Puge County, Liangshan Region, Sichuan Province

- Actively improved the villagers' living standards by assisting in building new homes, farmhouse and other supporting facilities, donated winter essentials such as clothes, quilts, and electric blankets. Books and teaching material were donated to schools. Streetlights were installed to provide proper lighting. Actively promoted medical consultation through the internet in Puge County to provide major disease diagnosis and treatment.
- Invested RMB 1.5 million to run the "CGN Ethnic Minority Egret Class" in Puge County, Liangshan Region, Sichuan Province. It benefited 140 disadvantaged students in Gumulo Village and surrounding villages. Children's self-confidence has greatly improved through Egret Class' activities. There were about 200 artworks from the Art Summer Camp exhibited at the Shanghai Art Museum. Two of the art works were purchased for RMB 2,000 by a philanthropist. Team #4 of the Guangdong Provincial Poverty Alleviation Collaboration has won the National-level Innovation Award with the Gumulo Village case.

Investment of

RMB **6.33** million

to Kongtong Village, Yangjiang City

Kongtong Village, Yangjiang City, Guangdong Province

- The selected stationed village First Secretary, Chen Xiongchao was awarded "Outstanding Contribution Personnel".
- Investment of RMB 6.33 million to provide comprehensive support in three aspects including production development, infrastructure and livelihood.

Investment of

RMB **300,000**

has been made for each village.

Liaoyu Village and Mingyang Village, Gutian County, Fujiang Province

- Two cadres were designated to station in the village as poverty alleviation officers. Investment of 300 thousand Yuan has been made for each village.
- Ningde Nuclear assisted 14 extreme poverty households in Nantang Village, Yantian Township, Xiapu County. The support will be continued in 2020 to stabilize poverty alleviation and prevent future poverty.
- Actively carried out various poverty alleviation events: In February, poverty alleviation job fair was held. Partner companies recruited more than 100 local residents. In April, jointly with the media and representatives selected from the internet, promotion was conducted for white tea from Fangjiashan Village, Taimushan Town, Fuding City.

In 2020, the Company continues to utilize its technological and industrial advantages to conduct poverty alleviation through industrial, education and technology support, further improving and stabilizing the long-term mechanism of poverty alleviation. The following will be implemented:

- Lingyun County

  The main focus is to further improve poverty alleviation effectiveness in industrial development and strengthen the village's collective economy. Develop and expand the silkworm breeding industry, continue with the Egret Class to help Longhuai Village to get out of poverty permanently.

- Leye County

  Strengthen the poverty alleviation results by reinforcing the county's strategic development. Promote the food irradiation and bio-organic fertilizer project. Continue with the Egret Class to assist Quanda Village to get out of poverty permanently.

- Eastern and Western poverty alleviation collaboration

  Implement poverty alleviation through eduction by running CGN Ethnic Minority Egret Class in Puge County, Liangshan Region, Sichuan Province to continue support local residents on animal farming, medical assistance, industrial project collaboration, and improve infrastructure construction with the local government.

- Poverty alleviation in Guangdong and Fujian Province

  Continue to support Kongtong Village and Yangjiang City to develop their collective economy by improving local infrastructure and livelihood, including the family brewing and pigeon breeding industry, 2nd phase of streetlight installation, construction demonstration for rural development, waterway restoration, enhancing education level, living standard and the Party Service Centre.

  Provide support to Chexi Village of Ningde City with the Exhibition Hall construction project. Strengthen poverty alleviation work in Mingyang Village and Liaocuo Village of Guitian County. Organize large-scale job fairs locally and actively for industrial tourism projects.

Yangjiang Nuclear Supported Poverty Alleviation in Kongtong Village

Kongtong Village, Yangchun City is a key village assisted by Yangjiang Nuclear. By adhering to the "priority given to education" concept, Yangjiang Nuclear has invested a total of RMB 1.35 million since May 2018 for Wenjing Primary School on teaching equipment, maintenance and renovation of the campus' basic infrastructure. Volunteers worked hard to enhance education quality and cultural development. During the Reporting Period, Yangjiang Nuclear invested additional resources for campus equipment, formulated the Rainbow Project and established the "Egret Class".

With the help from Yangjiang Nuclear, residents opened a family wine brewing workshop after learning brewing techniques. At the same time, the agriculture industry has been developed. Staff canteen signed contract for purchasing the supply of agriculture products from Kongtong Village. Through channels such as special poverty alleviation meals, agricultural product sales booth at nuclear power exhibitions and other channels, we helped the village to sell nearly 5,000 kg of agricultural products.

Caring for the Community

Accumulated voluntary services and social public welfare activities

28,131

hours

Employees participate in voluntary activities over

27,000

person-times

We have always been adhering to the spirit of "dedication, love, mutual assistance, progress", and actively engaged in volunteering services and public welfare activities such as provision of disadvantaged households assistance, student aid, science popularization, and undertaking tree planting to provide warmth to those in need. We have accumulatively carried out over 27,000 person-times and 28,131 hours of volunteer services and social welfare activities during the Reporting Period.

>>>Spring Festival caring activities

CGN Operations Launched "Renwei Student Aid Project" for Disadvantaged Outstanding Student

It has been five years since CGN Operations Electrical Division launched the "Renwei Student Aid Project" in 2014. During the Reporting Period, members of the project team visited disadvantaged families and sponsored outstanding students to attend prestigious universities. During the Reporting Period, the project team attempted to seek external funding for the first time. Through fundraising and marketing on WeChat, websites and posters, we call for more people to contribute and sponsor disadvantaged students.

As of the end of 2019, the "Renwei Student Aid Project" has raised a total of RMB 170,000, which sponsored 65 students with excellent academic achievements and funded 48 students to attend universities.

Yangjiang Nuclear Visiting Activity before Chinese New Year

Before the Chinese New Year of 2019, Yangjiang Nuclear volunteer team visited nearly 300 families in the surrounding area. The team donated gifts and paid a visit to the newly renovated homes of disadvantaged families in Yunbo Village. The team also installed stairs guardrails for those in need. In addition, Yangjiang Nuclear invited a local calligraphy expert to the community to prepare Chinese New Year couplets for thousands of villagers.

Ningde Nuclear Organized Employee Blood Donation Activity

On June 26, 2019, Ningde Nuclear and GGN Operations jointly undertook the "Blood Contribution, Donating Together" blood donation activities. There were hundreds of participants in this event, and the total blood donation amounted to 32,000 ml. Blood donation reflects the mutual care and love between people and builds a bridge to connect love and hope.

Looking Forward

Steady Development

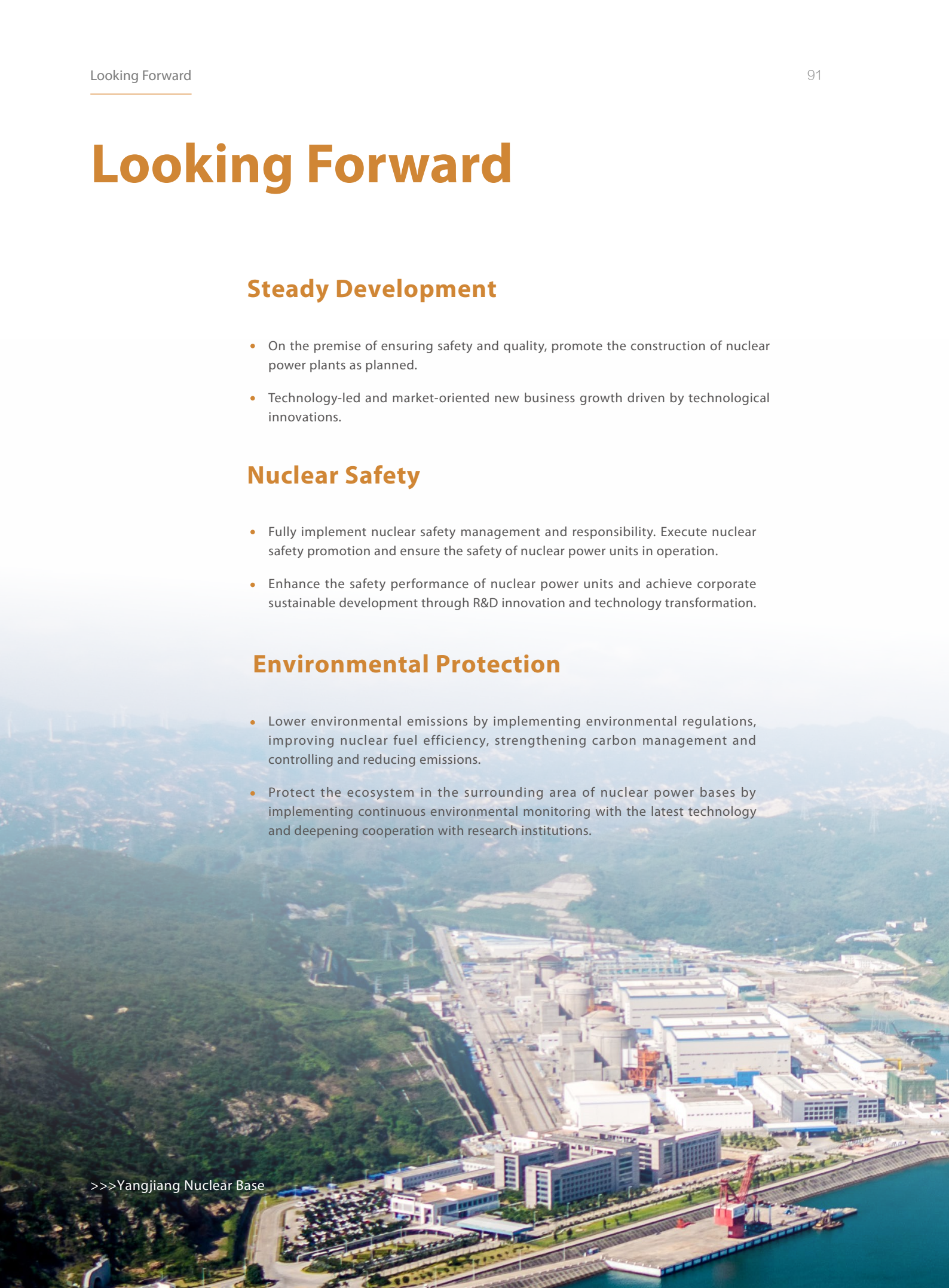
- On the premise of ensuring safety and quality, promote the construction of nuclear power plants as planned.
- Technology-led and market-oriented new business growth driven by technological innovations.

Nuclear Safety

- Fully implement nuclear safety management and responsibility. Execute nuclear safety promotion and ensure the safety of nuclear power units in operation.
- Enhance the safety performance of nuclear power units and achieve corporate sustainable development through R&D innovation and technology transformation.

Environmental Protection

- Lower environmental emissions by implementing environmental regulations, improving nuclear fuel efficiency, strengthening carbon management and controlling and reducing emissions.
- Protect the ecosystem in the surrounding area of nuclear power bases by implementing continuous environmental monitoring with the latest technology and deepening cooperation with research institutions.



>>>Yangjiang Nuclear Base

Staff Development

- Prioritize employees' health and safety, implement safety guidelines and protect their rights and welfare.
- Stimulate employees' vitality and development by improving the talent training work plan, enriching employee training forms and resources, optimizing performance evaluation and promotion systems.

Win-win Cooperation

- Strengthen fair competition and anti-corruption in supply chain management.
- Promote safe and environmentally friendly nuclear power supply chain. Strengthen cooperation with the nuclear power industry alliances to enhance competitiveness.

Social Contribution

- Continuously implement transparent communication by inviting media and stakeholders for site visit. Allow public to monitor the Company's performance and improve public recognition and acceptance of nuclear power.
- Give back to the community by strengthening community involvement, participating in charitable events and increasing investment in poverty alleviation.

Appendix

UN SDGs

SDGs	UN SDGs	CGN Power Actions	Chapter
	End poverty in all its forms everywhere	Actively pay attention to the socially disadvantaged groups to eliminate poverty, and creating a harmonious and warm society	Creating a Harmonious Community
	Ensure healthy lives and promote well-being for all at all ages	Adhere to the management policy of "safety First, prevention-oriented, comprehensive governance", and actively adopt measures to ensure employees' health and safety	Uniting Talents
	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Implement education alleviation to improve education resources and quality in underdeveloped areas	Creating a Harmonious Community
	Achieve gender equality and empower all women and girls	Adhere to the principle of open, fair and equal competition, and implement gender equality	Uniting Talents
	Ensure access to affordable, reliable, sustainable and modern energy for all	Promote nuclear power development and clean energy popularity. Ensure the safety operation of nuclear power	Guarding Nuclear Power Safety
	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Respect and protect employees' rights and interests. Build a diversified workforce with adequate development support	Uniting Talents Collaborating for Sustainable Development Creating a Harmonious Community

SDGs	UN SDGs	CGN Power Actions	Chapter
	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Construct power infrastructure, enhance innovation capabilities and optimize energy development technologies	Guarding Nuclear Power Safety Collaborating for Sustainable Development
	Ensure sustainable consumption and production patterns	Improve overall nuclear power efficiency, reduce resources consumption and waste disposal. Ensure radioactive waste emissions meet national standards	Guarding Nuclear Power Safety
	Take urgent actions to combat climate change and its impacts	Adhere to nuclear power development. Promote low carbon energy structure, and reduce carbon emissions	Protecting the Environment
	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Attach importance to the impacts of power plant construction and operation on surrounding underwater life, and adopt measures to protect the underwater life around the community	Protecting the Environment
	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Attach importance to the impacts of power plant construction and operation on surrounding terrestrial flora and fauna, and adopt measures to protect the terrestrial life around the community	Protecting the Environment
	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	Enhance competitiveness and synergy in the nuclear power industry chain. Establish a mutually beneficial strategic partnership with upstream and downstream companies	Collaborating for Sustainable Development

Key Performance Indicators

Safety

Item	Indicator	Performance Comparison		
		2017	2018	2019
Nuclear Safety	Nuclear power generating units in operation (units)	20	22	24
	Percentage of advanced value achieved for WANO indicators of units (top1/4)	73.75%	78.79%	76.39%
	Unplanned automatic scram (times)	2	2	3
	Level 2 or above nuclear events[15]	0	0	0
Personal Safety (including employees and contractors)	Death (persons)	0	0	0
	Death rate per 100,000 persons in engineering construction	0	0	0
	Serious injury (cases)	0	0	1
Fire Safety	Fire hazards (cases)	0	0	0
Radiation Protection	Accidental overexposure (cases)	0	0	0
	Loss of radiation sources (cases)	0	0	0
	Internal contamination accident (cases)	0	0	0

Environmental

	2017	2018	2019
Clean energy equivalent to carbon dioxide emissions (10,000 ton)	11,129.00	13,254.56	15,051.35

Water Resources Management

	2017	2018	2019
Fresh water consumption (10,000 tons)	1,771	1,620	1,167

[15] Nuclear incidents are classified into seven levels in the INES. Event of levels 1 to 3 are terms as "incidents" while levels 4 to 7 are classified as "accidents". Events without safety significance are classified as "below scale/ Level 0", which have no impact on the operation of the power plant and the environment and no consideration is required from a safety perspective.

Social

Item	Indicator		2017	2018	2019
Proportion of employees	Number of Employees[16]		20,037	18,663	18,383
	Number of ethnic minority employees		779	781	783
	Gender	Female	10.90%	11.60%	11.58%
		Male	89.10%	88.40%	88.42%
	Employee Category	Administration	6.53%	7.29%	7.69%
		Technical	93.47%	92.71%	92.31%
	Age	Aged 28 and below	30.83%	24.46%	19.66%
		Aged 29 to 35	42.56%	42.78%	42.13%
		Aged 36 to 45	17.60%	21.73%	25.48%
		Aged 46 and above	9.01%	11.03%	12.73%
	Academic Background	Undergraduate or below	8.25%	7.59%	6.28%
		Undergraduate	72.22%	72.91%	73.74%
		Postgraduate	18.61%	18.57%	19.00%
		Doctorate	0.92%	0.93%	0.98%
	Region	Within Shenzhen	22.51%	23.90%	23.22%
		Outside Shenzhen	77.49%	76.10%	76.78%
Turnover rate	Gender	Female	0.26%	0.30%	0.28%
		Male	2.02%	2.75%	1.96%
	Region	Within Shenzhen	0.71%	0.43%	0.38%
		Outside Shenzhen	1.57%	2.62%	1.86%
	Age	Aged 28 and below	0.60%	1.14%	0.97%
		Aged 29 to 35	1.42%	1.42%	0.89%
		Aged 36 to 45	0.21%	0.41%	0.32%
		Aged 46 and above	0.05%	0.08%	0.06%

Staff Training			
Category	2017	2018	2019
Average training hours per employee (rounded up)	172	179	146
Senior managers training rate	100%	100%	100%
Middle managers training rate	100%	100%	100%
Training rate for male	100%	100%	100%
Training rate for female	100%	100%	100%

[16]Not including affiliated companies.

Public Welfare and Communication			
Category	2017	2018	2019
Total donation (10,000 Yuan)	1,867.44	1,790.15	1,949.07
Volunteering hours	34,674	35,000	28,131
Press conference	11	15	10

Poverty Alleviation Achievements		
Indictors	Units	Quantity/ Development
Overall		
Funds	RMB 10,000	1,853.59
Goods donations	RMB 10,000	35.34
Number of disadvantaged individuals supported	Persons	3,050
Breakdown		
Industrial alleviation		
Type of industrial alleviation project	Agriculture and forestry alleviation	
Number of industrial alleviation project	Unit	2
Amount invested in industrial alleviation	RMB 10,000	740
Number of disadvantaged individuals assisted	Persons	3,050
Employment alleviation		
Employment alleviation	RMB 10,000	0
Number of vocational skills trainees	Persons- time	828
Number of employments achieved for disadvantaged individuals	Persons	51
Education alleviation		
Amount invested for disadvantaged students	RMB 10,000	371.76
Number of disadvantaged students supported	Persons	740
Amount invested for improving education resources in underdeveloped areas	RMB 10,000	9.1
Social alleviation		
Amount invested in Eastern and Western Poverty Alleviation	RMB 10,000	150
Amount invested in designated poverty alleviation	RMB 10,000	648.59
Amount invested in poverty alleviation charitable fund	RMB 10,000	1,205

ESG Index

The Company has complied with the "Comply or Explain" provisions set out in Appendix 27 *Environmental, Social and Governance Reporting Guide* of the *Listing Rules* of SEHK. The table below provides a summary of the report compliance.

Aspect	Indicator	Indicator description	Disclosure	Chapters/ Remarks
Environmental				
A1: Emissions	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non- hazardous waste	●	Reducing Pollutant Emissions
	A1.1	The types of emissions and respective emissions data	●	Reducing Pollutant Emissions
	A1.2	Greenhouse gas emissions in total (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	●	Reducing Pollutant Emissions
	A1.3	Total hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	●	Reducing Pollutant Emissions
	A1.4	Total non-hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	●	Reducing Pollutant Emissions
	A1.5	Description of measures to mitigate emissions and results achieved	●	Reducing Pollutant Emissions
	A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved	●	Reducing Pollutant Emissions
A2: Use of Resources	General Disclosure	Policies on the efficient use of resources including energy, water and other raw materials	●	Improving Water Management
	A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total and intensity (e.g. per unit of production volume, per facility)	●	Reducing Pollutant Emissions
	A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility)	●	Improving Water Management
	A2.3	Description of energy use efficiency initiatives and results achieved	●	Efficient Use of Resources
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved	●	Improving Water Management
	A2.5	Total packaging material used for finished products (in tons) and, if applicable, with reference to per unit produced	●	Not applicable for electricity product

A3: Environmental and Natural Resources	General disclosure	Policies on minimizing the issuer's significant impact on the environment and natural resources	●	Protecting the Environment
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	●	Protecting the Environment
Social				
B1: Employment	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare	●	Uniting Talents
	B1.1	Total workforce by gender, employment type, age group and geographical region	●	Recruiting Outstanding Talents
	B1.2	Employee turnover rate by gender, age group and geographical region	●	Recruiting Outstanding Talents
B2: Health and Safety	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards	●	Occupational Health and Safety
	B2.1	Number and rate of work-related fatalities	●	Key Performance Indicators
	B2.2	Lost days due to work injury	●	Outstanding Safety Performance Key Performance Indicators
	B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	●	Occupational Health and Safety
B3: Development and Training	General disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities	●	Enhancing Training Systems
	B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management)	●	Enhancing Training Systems
	B3.2	The average training hours completed per employee by gender and employee category	●	Enhancing Training Systems
B4: Labor Standards	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor	●	Recruiting Outstanding Talents
	B4.21	Description of measures to review employment practices to avoid child and forced labor	●	Recruiting Outstanding Talents
	B4.2	Description of steps taken to eliminate such practices when discovered	●	Recruiting Outstanding Talents

B5: Supply Chain Management	General disclosure	Policies on managing environmental and social risks of the supply chain	●	Promoting Green Supply Chain
	B5.1	Number of suppliers by geographical region	●	Optimizing Supply Chain Management
	B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	●	Optimizing Supply Chain Management
B6: Product Responsibility	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	●	Health and Safety: Occupational Health and Safety Privacy: Network and Information Technology Advertising and labelling are not applicable for electricity product
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	●	Not applicable for electricity product
	B6.2	Number of products and service-related complaints received and how they are dealt with	●	Outstanding Safety Performance
	B6.3	Description of practices relating to observing and protecting intellectual property rights	●	Exploring Technological Innovation
	B6.4	Description of quality assurance process and recall procedures	●	Product recall is not applicable for electricity product
	B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored	●	Network and Informational Security
B7: Anticorruption	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering	●	Anti-corruption
	B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases	●	Anti-corruption
	B7.2	Description of preventive measures and whistle-blowing procedures,how they are implemented and monitored.	●	Anti-corruption
B8: Community Investment	General disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests	●	Building a Harmonious Community
	B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport)	●	Fighting for Poverty Alleviation Caring for the Community
	B8.2	Resources contributed (e.g. money or time) to the focus area	●	Key Performance Indicators

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