



新奥天然气股份有限公司  
ENN Natural Gas Co., Ltd.

# 2022

## Environmental, Social and Governance Report



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# About This Report

This Environmental, Social and Governance ( “ESG” ) Report reflects how ENN-NG fulfills its economic, social and environ- mental responsibilities to achieve sustainability and responds to issues of general interest by stakeholders. The Company’s Board of Directors has reviewed this report and is responsible for the authenticity and validity of the information contained.

## References

For ease of presentation and reading, ENN Natural Gas Co., Ltd. is hereinafter referred to as “ENN-NG”, “the Company” or “we/us”.

ENN Energy, Xinneng Mining, Xinneng Energy, ENN Qin- shui and Zhoushan Terminal mentioned in this report are subsidiaries of ENN Natural Gas Co., Ltd.

Name of Subsidiaries	Abbreviation
ENN Energy Holdings Limited	ENN Energy
Xinneng Mining Industry Co., Ltd.	Xinneng Mining
Xinneng Energy Co., Ltd.	Xinneng Energy
Shanxi Qinshui ENN Clean Energy Co., Ltd.	ENN Qinshui
ENN (Zhoushan) LNG Co., Ltd.	Zhoushan terminal

## Reporting Period

The content of this Report covers the period from 1 Janu- ary, 2022 to 31 December, 2022. The time period for some of the contents may be extended or retraced to maintain the continuity of information.

## Response to the Four Principles of HKEX's ESG Reporting Guidelines

Materiality: For the purpose of this Report, the Company has conducted a materiality assessment process to determine the content of disclosures and the level of detail for each issue herein.

Quantitative: This Report discloses quantitative data on the environmental and social aspects to reflect the performance of various indicators.

Balance: The Report’s contents are derived from the Company’s internal management documents, statistics and public dis- closures, as well as public media reports, without improper modifications.

Consistency: Unless otherwise specified, the data disclosed in this Report are compiled according to the uniform informa- tion collection process and working mechanism established by the Company to ensure the year-on-year comparability of the data.

## Access to This Report

This Report is available for browsing and download on both the website of the Shanghai Stock Exchange (www.sse.com. cn) and the Company’s website (www.enn-ng.com).

This Report discloses in detail the progress and effectiveness of ENN-NG’s work on ESG in 2022, supervised by the ESG Committee on 22 March, 2023 and approved by the Board of Directors on 24 March, 2023.

## Scope of This Report

This report focuses on ENN Natural Gas Company Limited and its subsidiaries.

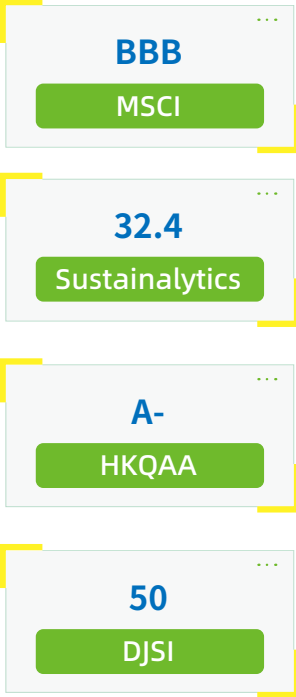
## Preparation Basis

This Report is formulated according to the requirements of the *Guidelines No. 1 for Self-regulation of Listed Com- panies on Shanghai Stock Exchange - Regulated Op- eration* and the *Environmental, Social and Governance Reporting Guide* ( “ESG Guide” ) under the Appendix 27 of the Listing Rules of the Hong Kong Exchanges and Clearing Limited ( “HKEX” ), and in light of the GRI Stand- ards promulgated by the Global Sustainability Standards Board ( “GSSB” ), as well as other relevant standards.

## Data Source

All the information and data expressed herein come from the Company’s official documents, statistical and finan- cial reports and ESG information collected, compiled and reviewed by the Company. This Report is published in Chi- nese and English. In case of discrepancies between the two versions, the Chinese one shall prevail. Unless other- wise specified, the currency unit used is RMB.

# Rating performance



## Selected for Inclusion

The MSCI China A Index	Hang Seng (China A) Corporate Sustainability Index ( “HSCASUS” )	Hang Seng (China A) Corporate Sustainabil- ity Benchmark Index ( “HSCASUSB” )
CSI 300 Index	Hang Seng (Mainland and HK) Corporate Sustainability Index ( “HSMHSUS” )	Hang Seng Stock Connect Hy- drogen Energy Index

## ENN-NG won the "Award for Annual Outstanding Enterprise in Sustainable Development by EY"

ENN-NG was honored with the “Award for Annual Outstanding Enterprise in Sustainable Development” by EY, in recognition of the company’s achievements in ensuring the safe supply of clean energy, developing integrated energy technology, protecting the ecology of energy businesses, and upgrading the digital intelli- gence of the energy industry. This award also affirms the success of ENN-NG in achieving the dual-carbon targets and promoting sustainable development. As a company committed to sustaina- ble development, ENN-NG has always considered ESG as a vital driving force for its core strategy and business development. By continuously optimizing its governance system, ENN persistently enhances ESG practices and performance, creating more value for investors, customers, and society.



# Awards and Honors



# ENN-NG: Digitally Connected in All Scenarios, Moving Towards a Sustainable Future

Building a responsible intelligent ecological operator in the natural gas industry

## 1. Shoulder Corporate Responsibilities and Compliance

ENN-NG has established a sound corporate governance structure and continuously improves the operational efficiency of the Board of Directors and strengthened the risk management mechanism to ensure the sustainable development of the Company.

**Comprehensive Corporate Governance for Multiple Paths to Succeed:**

- 13 board meetings were held in total, with **100%** attendance of directors.
- The percentage of Female Directors increased from **8%** to **18%**.
- The percentage of Independent Directors increased from **33%** to **36%**.

To increase diversity on the Board of Directors, the Company has set a goal of increasing the percentage of female directors to **30%** by 2030.

**Firm Adherence to Corporate Integrity:**

- Percentage of employees that had signed the Employee Code of Conduct and the Code of Integrity and Compliance: **100%**.
- Percentage of suppliers and contractors that had signed the Code of Conduct and Integrity Agreement: **100%**.

**Strengthened Risk Management for Long-term Stability:**

- Conducted **41 compliance** trainings with a total of **4,503 participants** and **10,976 training hours**.

**Information security, privacy protection:**

- Major network security and privacy protection complaints or incidents: **Zero**.
- Third-party privacy policy compliance audits have been carried out for **12 times**.
- Information security training for **4,390 hours**.

### CHAPTER 5

Community Relations



### CHAPTER 3

Biodiversity Conservation



### CHAPTER 3

Waste Management



## 2. Uphold Safety as Business Foundation

ENN-NG has developed a safe and intelligent operation management system that prioritizes safety while also considering the bottom line. This system utilizes digital intelligence to identify hidden risks, address major risks, and effectively manage risks in all business scenarios. By continuously improving health and safety performance, ENN-NG is committed to ensuring safe production practices.

**Non zero safety management objective:**

by 2030, the disabling incident frequency rate per million man-hour will be reduced to **0.75**.

- Employee disabling incident frequency rate per million man-hour: **0.34**.
- Employee and contractor disabling incident frequency rate per million man-hour: **0.09\***.
- Contractor disabling incident frequency rate per million man-hour: **0.15\***.
- ENN-NG's carrier has traveled 26.3 million kilometers **without any personal injuries**.

- Total investment in occupational health and safety: **RMB1.74 billion**.
- Full-time safety managers: **1,041**.
- Employee and contractor physical examination coverage rate: **100%**.
- Number of occupational disease cases: **0**.
- ENN-NG and its **68** subsidiaries obtained ISO 45001 or ISO 39001 safety audit certification
- ENN-NG's all member companies conducted **5,218** emergency drills for fire prevention, chemical explosions, gas leaks, etc.
- The total number of people who received safety training is **554,333**.

\*Excluding ENN Energy

### CHAPTER 1

Compliance and Risk Management



### CHAPTER 1

Anti-bribery and Anti-corruption



### CHAPTER 4

Employees' Development and Training



### CHAPTER 4

Women's Empowerment



### CHAPTER 3

Climate Change and Carbon Emission Reduction



### CHAPTER 1

Data Information and Privacy Security



### CHAPTER 2

Safe and Stable Gas Supply



### CHAPTER 2

Occupational Health and Safety



### CHAPTER 5

Renewable and Clean Energy



## 3. Drive low-carbon Development for a Cleaner Environment

With the green development philosophy in mind, ENN-NG continuously improved its environmental management capability and resource use efficiency, maintained biodiversity conservation and local ecology, so as to minimize the consumption of environmental resources and energy.

**ENN-NG overall targets of green action:**

Reach peak carbon emissions by 2030, Reach carbon neutrality by 2050.

- he carbon emission intensity decreased by **28.3%** year-on-year.
- Help society and users reduce emissions by **52.88 million tons**.
- The comprehensive energy consumption density decreased by **20.4%** year-on-year.
- Incidents of major environmental pollution and violations: **Zero**.
- The investment in environmental protection funds: **60.29 million RMB**.
- ENN-NG and **66** subsidiaries has been certified for the ISO 14001 Environmental Management System.
- In 2022, ENN-NG collaborated with an internationally recognized third-party consulting agency to measure and calculate the carbon emissions Scope III. As a pioneer in climate action within the industry in China, this made ENN-NG **the first** domestic energy company to disclose **full lifecycle carbon footprint** of natural gas products.

## 4. Cultivate Talents for Collective Empowerment

ENN-NG deems employees as a cornerstone of its sustainable development, we fully protect the legitimate rights and interests of our employees, improve various remuneration and benefit protection plans, attach much importance to training and development for employees, and help each employee achieve their value.

- Signed **"Women's Empowerment Principles"** of the UN Women, we are committed to making continuous efforts towards achieving gender equality.
- There was **Zero** employment discrimination, harassment, child labor or forced labor in ENN-NG.
- ENN-NG improved its training management system and resource building, covering **9** major product directions and **120** courses, with accumulatively **8,500 times** of learning.
- 74,379** training sessions with a total training duration of **910,380 hours**.
- The employee social insurance coverage rate has reached **100%**.

## 5. Embrace Digital Intelligence for a Green Industrial Chain

ENN-NG is committed to low-carbon development, invests in the R&D of frontier technologies of low-carbon energy, and relies on digital intelligence ecology to provide low-carbon energy utilization solutions with "energy and carbon integration". In addition, we focus on community development, public aid to schools, and other areas to continue to give back to society and promote sustainable social development.

- Building an intelligent natural gas operation platform, empowering the all-scenario natural gas transaction.
- The total investment in innovative research and development is **1.71 billion yuan**.

- Layout hydrogen energy track**, with **14 core** patented technologies and **40+** project experiences.

**Social Engagement and Corporate Social Responsibilities:**

- ENN-NG and its subsidiaries invested **24.42 million yuan** in public welfare and charity.

As one of the largest private energy enterprises in China, ENN Natural Gas Co., LTD. (hereinafter referred to as ENN-NG; SH (Stock code: 600803.SH) operates 254 city-gas projects nationwide. It manages Zhoushan LNG terminal, the first large private LNG receiving terminal in China, and has established a nationwide natural gas delivery and storage network. ENN-NG's business covers all scenarios of the natural gas industry, including distribution, trade, storage & transportation, production, and engineering construction projects.

In 2022, the Company recorded total gas sales volume of

**362** billion cubic meters

## Message from the Chairman



Chairman of ENN-NG  
**WANG Yusuo**



The concept of ESG is to promote the sustainable development of human beings, which well reflects the social value of corporate citizenship. As a clean energy company, ENN should make a difference and set an example.



With a 30-year history in the natural gas sector, ENN-NG has emerged as a private energy enterprise, evolving alongside China's reform and opening-up. Our enduring aspiration and vision has always been to "create a modern energy system and improve the quality of people's lives". Throughout our business journey, we have fervently championed sustainable development, green ecological construction, employee safety, health protection, and career growth. By embracing digital intelligence transformation, our unwavering dedication to crafting a high-quality path forward harmonizes with national development objectives and ENN's distinctive qualities.

In 2022, ENN-NG persevered amid significant pressure and challenges stemming from a volatile external landscape and a constrained industry environment. For China, 2022 was a year in which the "dual carbon" goals were systematically advanced, with opportunities and challenges coexisting with energy reform under way; "digital-real integration" also continued to deepen in 2022, with integration of the digital economy and the real economy proving essential in the pursuit of industrial digital intelligence. At ENN-NG, we have fully upgrad-

ed our development strategy to become an "intelligent ecological operator in the natural gas industry"; as such, we continued to make good use of digital and intelligent technology while remaining steadfast in incorporating ESG concepts into our decision-making and business operations, reflecting our full and holistic commitment to ESG. Our persistent efforts and achievements in ESG have been acknowledged by both the capital market and society at large.

Adhering to our philosophy of sustainable development, we continued to optimize our corporate governance system to infuse the ESG culture into all aspects of corporate governance. Our Board of Directors took proactive actions to implement this philosophy by incorporating all significant ESG matters into their deliberations and decision-making processes. Simultaneously, we consistently enhanced our management structure and governance capabilities on ESG issues while identifying and adeptly managing ESG risks in daily operations, ensuring the company's long-term sustainable development.

As for safety management, we have worked to manage

the safety bottom line, taking measures to protect customers and reassure the government, which is our unwavering pursuit. Bearing in mind the principle of "putting people and life first", we have comprehensively pushed ahead the construction of the digital intelligence system on safety. We utilize IoT and AI technologies to enhance city-gas operations and mitigate intrinsic safety risks. In 2022, we recorded no safety accidents of substance (general-grade or above) in the whole year, earning government recognition and media praise during the national safety production inspection organized by the State Council Safety Committee.

In terms of environmental protection and management, we recognized our own responsibilities for carbon reduction and actively responded to the national "dual carbon" call, committing to achieve carbon peaking by 2030 and carbon neutrality by 2050. We implemented our "Green Action 2030: ENN Journey to Net Zero" to promote energy conservation and emission reduction technologies, and facilitate green and low-carbon transformation throughout the entire industrial chain, thereby contributing to the construction of a truly green ecosystem.

Furthermore, while adhering to the people-oriented principle, we remain focused on building and improving our talent management system and cultivation mechanism to establish a foundation of talented resources for high-quality development. We have implemented various measures to continually optimize our management in various aspects, such as employee compensation and benefits, talent skill development, employee care, and work environment. The company has also adopted the Women's Empowerment Principles issued by UN Women, actively promoting gender equality and empowering women in the workplace, marketplace, and community.

As we embark on a new journey with the arrival of spring and the commencement of the Party's 20th National Congress, we anticipate a robust momentum for the Chinese economy in 2023. Looking ahead, we will seize opportunities presented by natural gas development and industrial digital intelligence advancement to drive business innovation. Together with our colleagues and partners, we will play an integral role in shaping a dynamic chapter for China's modern energy industry.



# 01

## Reinforce Responsibility and Abide by Laws and Regulations

### Important ESG issues addressed in this Section

- Anti-unfair competition
- Compliance and risk management
- Anti-bribery and anti-corruption
- Data information and privacy security

### ESG goals addressed in this Section



### HKEX ESG indicators involved in this Section

- B6 Product Responsibility
- B7 Anti-corruption

ENN-NG has established a sound corporate governance structure and continuously improves the operational efficiency of the Board of Directors and strengthened the risk management mechanism to ensure the sustainable development of the Company.

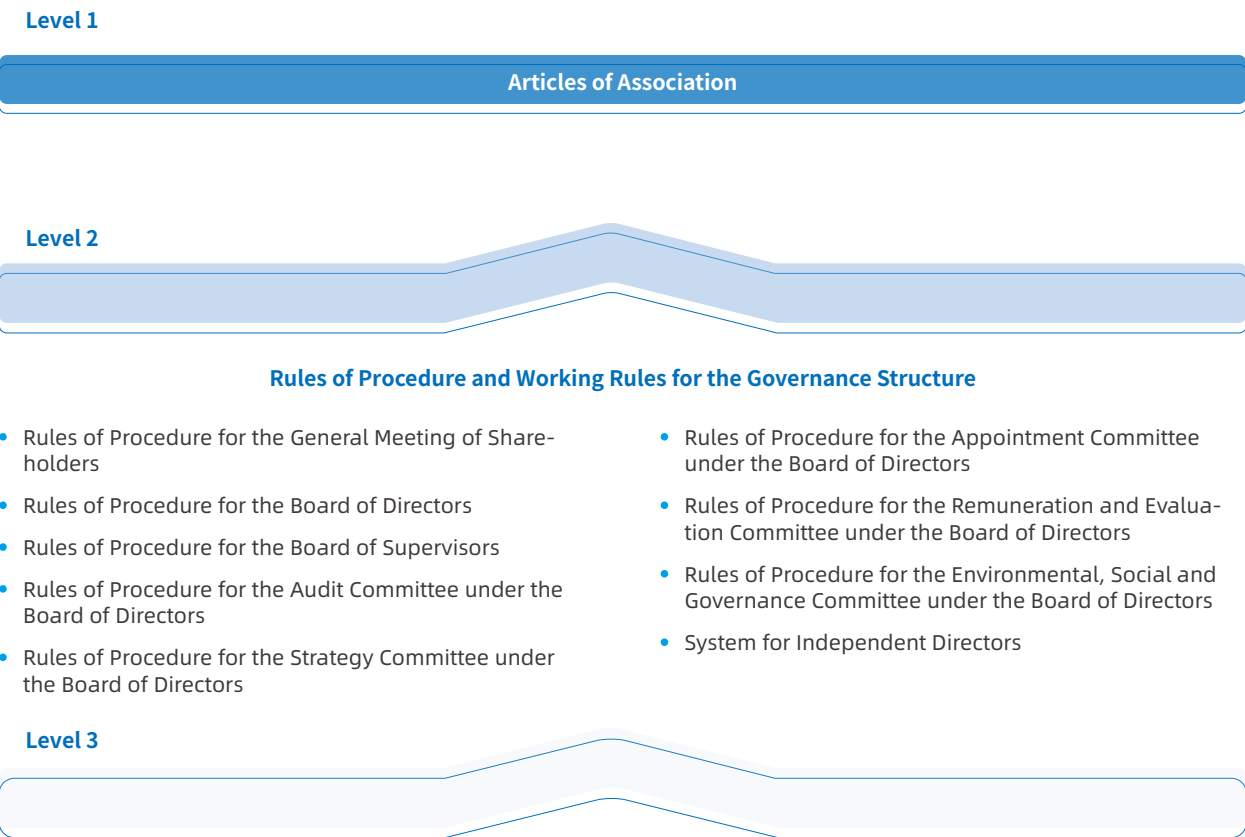


# Improve Governance for Diversified Development

With the goal of promoting the effectiveness, independence, professionalism and diversity of the operation of the Board of Directors, ENN-NG continues to improve the governance structure of the Board of Directors and gives full play to its maximum effectiveness, so as to lay a solid foundation for our sustainable development.

## Corporate Governance

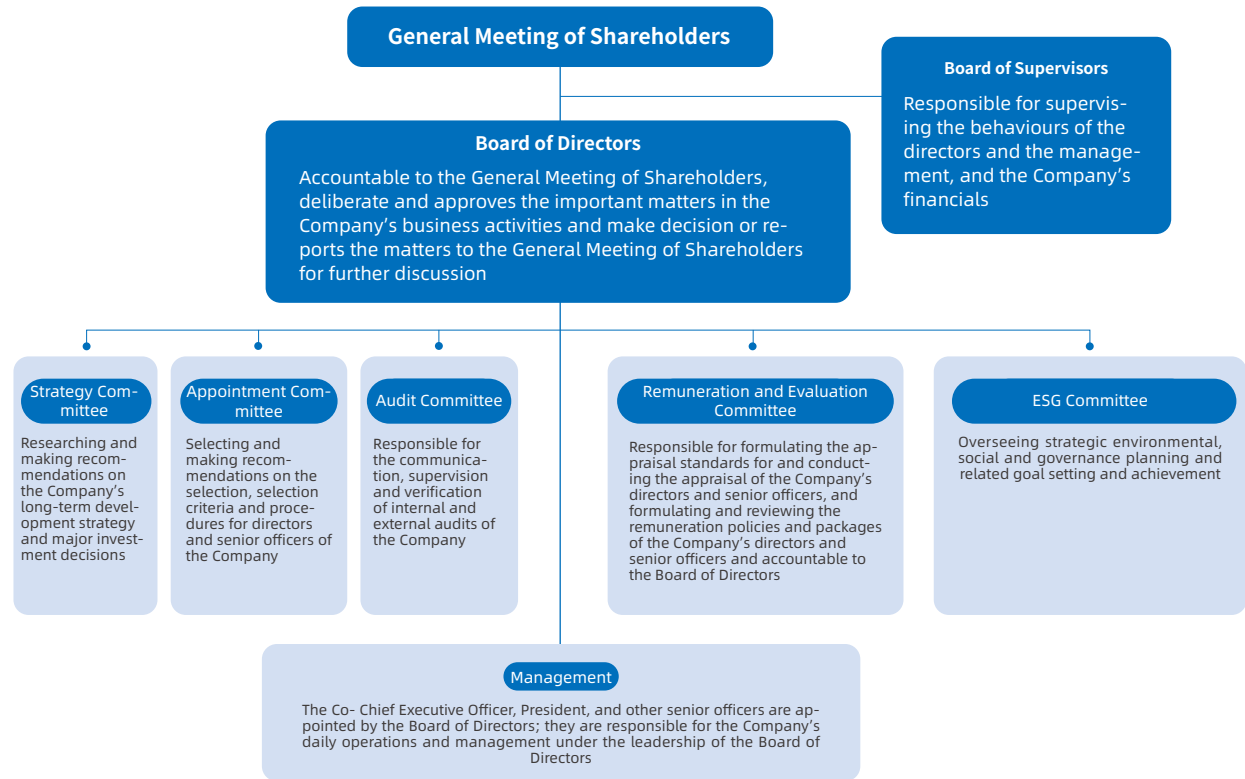
Three-level System of Corporate Governance



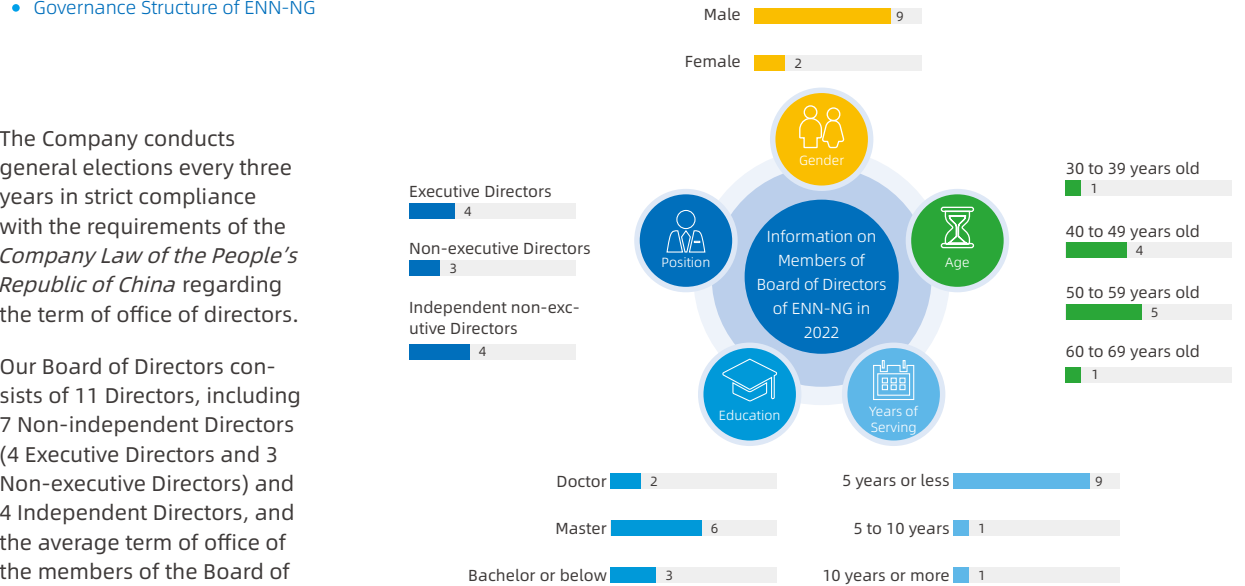
### Specific Systems Related to Corporate Governance

- Information Disclosure Management System
- Investor Relations Management System
- Measures for the Administration of Changes in Shareholdings of Directors, Supervisors and Senior Management
- Connected Transactions Management System
- External Guarantees Management System
- External Donations Management System
- Fund Raising Management System
- Information Disclosure Suspension and Exemption System
- Management System for Registration of Informants of Insider Information
- Other systems as required by regulators

ENN-NG strictly complies with the regulatory requirements of the place where it's listed and continuously improves its governance structure and internal control system. The Company has established a governance structure and operation mechanism composed of the General Meeting of Shareholders, the Board of Directors, the Board of Supervisors, and the Senior Management team, and has developed an internal management system to ensure a compliant, professional and effective decision-making mechanism and thus ensure sound operation of the Company.



### Governance Structure of ENN-NG



The Company conducts general elections every three years in strict compliance with the requirements of the *Company Law of the People's Republic of China* regarding the term of office of directors.

Our Board of Directors consists of 11 Directors, including 7 Non-independent Directors (4 Executive Directors and 3 Non-executive Directors) and 4 Independent Directors, and the average term of office of the members of the Board of Directors is 3.6 years.



• Structure of the Special Committee of the Board of Directors of ENN-NG

♂ Independent Directors ♀ Female

In 2022, ENN-NG held 13 Board meetings (4 periodic meetings and 9 ad hoc meetings), with 100% attendance of directors. The Board of Directors of the Company requested the convening of seven general meetings of shareholders, where such matters as major asset reorganization, directors' re-election, registration and issuance of medium-term notes, and the expected guarantees have been passed by voting, which protected the rights and interests of shareholders, especially the minority shareholders, and there was no case of any damage to the interests of minority shareholders.

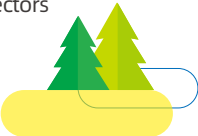
The Rules of Procedure for the Board of Directors clearly requires that the attendance rate of the Board of Directors shall not be less than

**75%**

In 2022, 13 Board meetings were held with

**100%**

attendance of Directors



In 2022, our initiatives to enhance the operation efficiency of Board of Directors were as follows:

- We distributed the *Questionnaire for Evaluation of Board Operations* to conduct annual evaluation of Board operations and make targeted improvements.
- We conducted 8 special training and examinations for Board members and senior officers, covering topics such as capital operation of listed companies, corporate governance and functions of each level, equity incentive, anti-corruption, risk management, cases of illegal violations of listed companies, addressing climate change, information disclosure and investor relations management, ESG seminars, etc. The total training hours reached 256 hours, effectively enhancing the compliance awareness and ESG performance ability of directors and senior officers.
- We developed the *Compliance Pocketbook for Directors, the Supervisors and Senior Management* to facilitate their learning and understanding of their duties and responsibilities and compliance governance requirements, and to promote better performance of their duties.



## Diversified Governance

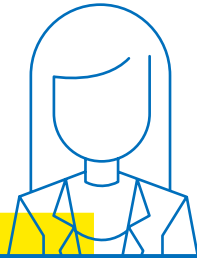
ENN-NG attaches great importance to the diversity and independence of its Board of Directors to understand the needs of the market and customers from a more comprehensive and integrated perspective and to improve its decision-making. With extensive experience in corporate governance, financial management, risk management, human resources management, and market development in the energy industry, Board members made independent and objective recommendations for the long-term development of the Company during the reporting period, in a bid to maximize value for all stakeholders.

In accordance with the provisions of the *Company Law of the People's Republic of China* and the *Securities Law of the People's Republic of China*, the Company has formulated the *System for Independent Directors of ENN Natural Gas Company Limited* to clarify the qualifications, selection and appointment procedures and terms of reference of independent directors and promote the efficient operation of the Board of Directors.

In 2022

The percentage of Female Directors increased from

**8 %** to **18 %**



The percentage of Independent Directors increased from

**33 %** to **36 %**



To increase diversity on the Board of Directors, the Company has set a goal of increasing the

percentage of female directors to **30%** by 2030.










# Refine ESG Goals and Optimize Management

ENN-NG is committed to improving the ESG management system by setting and completing annual ESG goals, communicating with all stakeholders, and improving operational transparency and the ability to fulfill its responsibilities. In 2022, the Company invited an external auditor for the first time to conduct an audit of the ESG report to ensure the objectivity and reliability of the information and data, and strengthen the foundation of our high-quality development in ESG governance.

## Communication with Stakeholders

ENN-NG values demands of all stakeholders and understand their demands through social media, WeChat public accounts, emails, questionnaires, on-site communication and other means to promote its sustainable development.

### ENN-NG's Communication with Stakeholders

Stakeholders	Expectations and Demands	Communication Channels	Responses
 Investors/ Analysts/ Rating Agencies	<ul style="list-style-type: none"> <li>Continuous performance growth</li> <li>Transformation of traditional business and development of new energy business</li> <li>Stable future development expectations</li> <li>Standardise corporate governance</li> <li>Prevent operational risks</li> <li>Improve information disclosure</li> </ul>	<ul style="list-style-type: none"> <li>Establish multiple communication channels to disclose information such as investor meetings, Shanghai Stock Exchange E-Interaction Platform, telephone meetings, regular briefings and provisional announcements</li> <li>Set up an investor relations group for inspection and daily administration of investor relations projects</li> <li>Company website</li> <li>Roadshows, one-on-one meetings, group sessions</li> </ul>	<ul style="list-style-type: none"> <li>Regularly disclose business performance</li> <li>Maintain stable profitability</li> <li>Improve corporate governance gradually</li> </ul>
 Government	<ul style="list-style-type: none"> <li>Comply with laws and regulations</li> <li>Honest and legitimate operations</li> <li>Pay taxes in accordance with the law</li> <li>Serve national strategies</li> </ul>	<ul style="list-style-type: none"> <li>Accept supervision and assessment</li> <li>Thematic presentation</li> <li>Participate in the formulation of industry policies and plans</li> </ul>	<ul style="list-style-type: none"> <li>Enhance security</li> <li>Improve risk control</li> <li>Comply with relevant laws and regulations</li> <li>Operate in accordance with industry growth and regional economic development</li> </ul>
 Employees	<ul style="list-style-type: none"> <li>Employees' rights and interests protection</li> <li>Employees' career growth</li> <li>Care for employees</li> </ul>	<ul style="list-style-type: none"> <li>Establish labor unions at different levels</li> <li>Channels for employees to participate in corporate governance</li> <li>Stimulate and respond to employees' innovation in time</li> <li>Solicit opinions and rationalization proposals</li> <li>iCome Mobile App</li> <li>Various internal and external training</li> </ul>	<ul style="list-style-type: none"> <li>Diversified recruitment</li> <li>Launch employee activities</li> <li>Care for employees' health</li> <li>Safeguard employees' rights and interests</li> <li>Offer online and offline learning platforms</li> </ul>
 Customers	<ul style="list-style-type: none"> <li>Offer premium products and services</li> <li>Protect the privacy of clients</li> <li>Respond to the needs of clients</li> </ul>	<ul style="list-style-type: none"> <li>Customer satisfaction survey</li> <li>Customer relationship management</li> <li>Discussions and interviews with clients</li> <li>Respond to complaints from clients</li> </ul>	<ul style="list-style-type: none"> <li>Launch client security check</li> <li>Timely and effective satisfaction of client needs</li> <li>Offer high-quality services for clients</li> <li>Customer satisfaction survey</li> </ul>
 Partners	<ul style="list-style-type: none"> <li>Adhere to business ethics</li> <li>Open, fair and equitable procurement</li> <li>Win-win and shared progress</li> </ul>	<ul style="list-style-type: none"> <li>Disclose procurement information</li> <li>Negotiate and communicate</li> </ul>	<ul style="list-style-type: none"> <li>Open tendering</li> <li>Build a supplier management system</li> <li>Improve policies constantly</li> <li>Enhance management efficiency</li> <li>Formulate environmental plan</li> </ul>



Environment

- Address climate change
- Environmental governance
- Environmental protection
- Use of renewable energy

- Disclose information of green operations
- Launch environmental activities for public welfare

- Implement the green action plan
- Carry out environmental plan
- Enhance energy saving and emission reduction
- Actively participate in carbon trading
- Improve energy efficiency
- Promote green and clean energies
- Drive green workplace transformation
- Monitor environmental data
- Actively engage in environmental protection activities



Community

- Community services development
- Create more jobs opportunities
- Foster Communication and cooperation

- Organized panel discussion
- Participate in community volunteer activities and awareness campaigns

- Make donations to charity
- Dedicate to public welfare
- Build harmonious communities
- Alleviate poverty and help people in need
- Participate in community volunteering



Media

- Transparent information disclosure
- Smooth communication channels
- Sound media relations

- Press conference
- Media tour
- Interview with the management

- Hold regular press conferences
- Dispatch Press releases
- Respond to media enquiry
- Communicate with the media

## ENN-NG Held an Investor Communication Event Entitled "Learn about ENN-NG as a Shareholder and Investor in 2022"

In May 2022, ENN-NG held its annual investor communication event, where our Board of Directors, senior management representatives and shareholders visited the Company's experience center, smart operation center and our rooftop photovoltaic project of our office building, and had a detailed introduction on the Company's operation status and future business development. The event allowed shareholders to have a comprehensive understanding of the Company's extraordinary history in the natural gas industry ecology and constant insistence on innovation and development, as well as the Company's business layout in the field of digital intelligence transformation and new energy.



Discussion between Management Representatives and Shareholders of ENN-NG

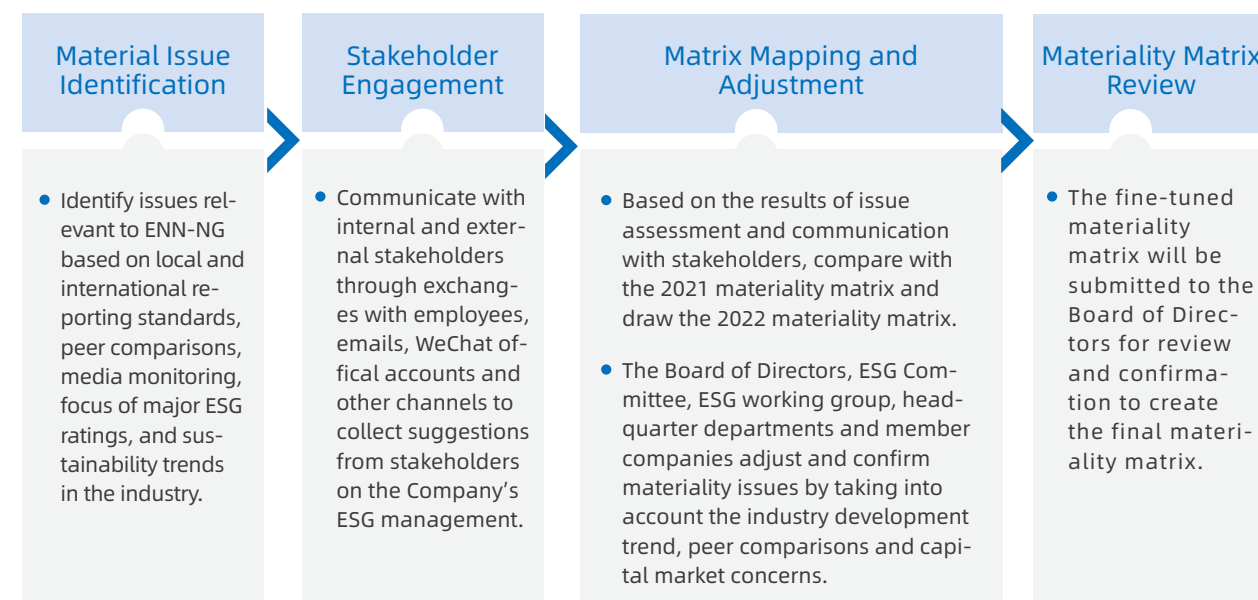


Photo of Event Participants

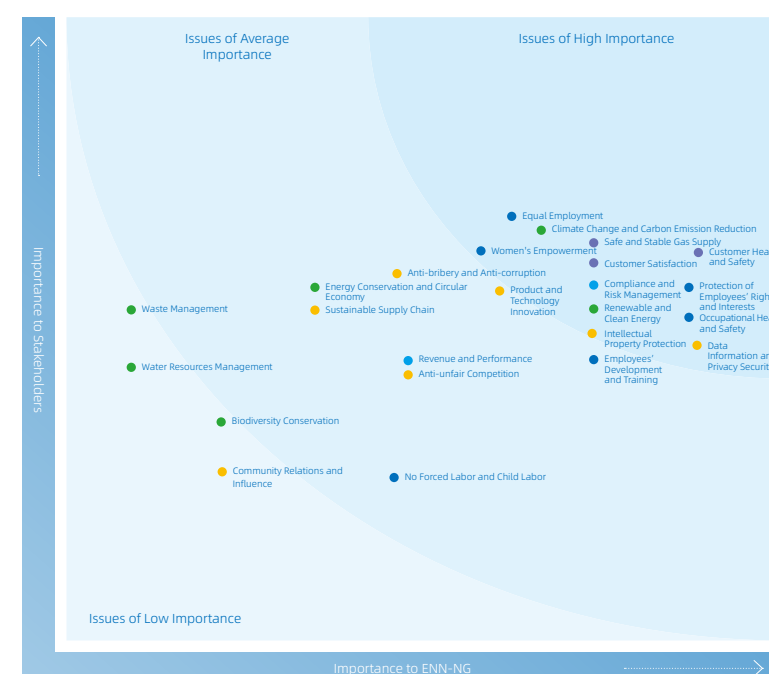
## Materiality Assessment

ENN-NG regularly evaluates ESG materiality issues. In 2022, ENN-NG complied with the new requirements of the HKEX Environmental, Social and Governance Reporting Guide and referred to relevant international initiatives and standards, as well as ESG issues of general concern to the capital market and the industry. Based on the questionnaire survey in 2021, we conducted in-depth research on each ESG materiality issue in 2022 through internal and external interviews and communications, peer comparisons, and rating summaries to ultimately identified material ESG issues of the year.


### Material Issues Identification Process



### 2022 ENN-NG's ESG Materiality Matrix



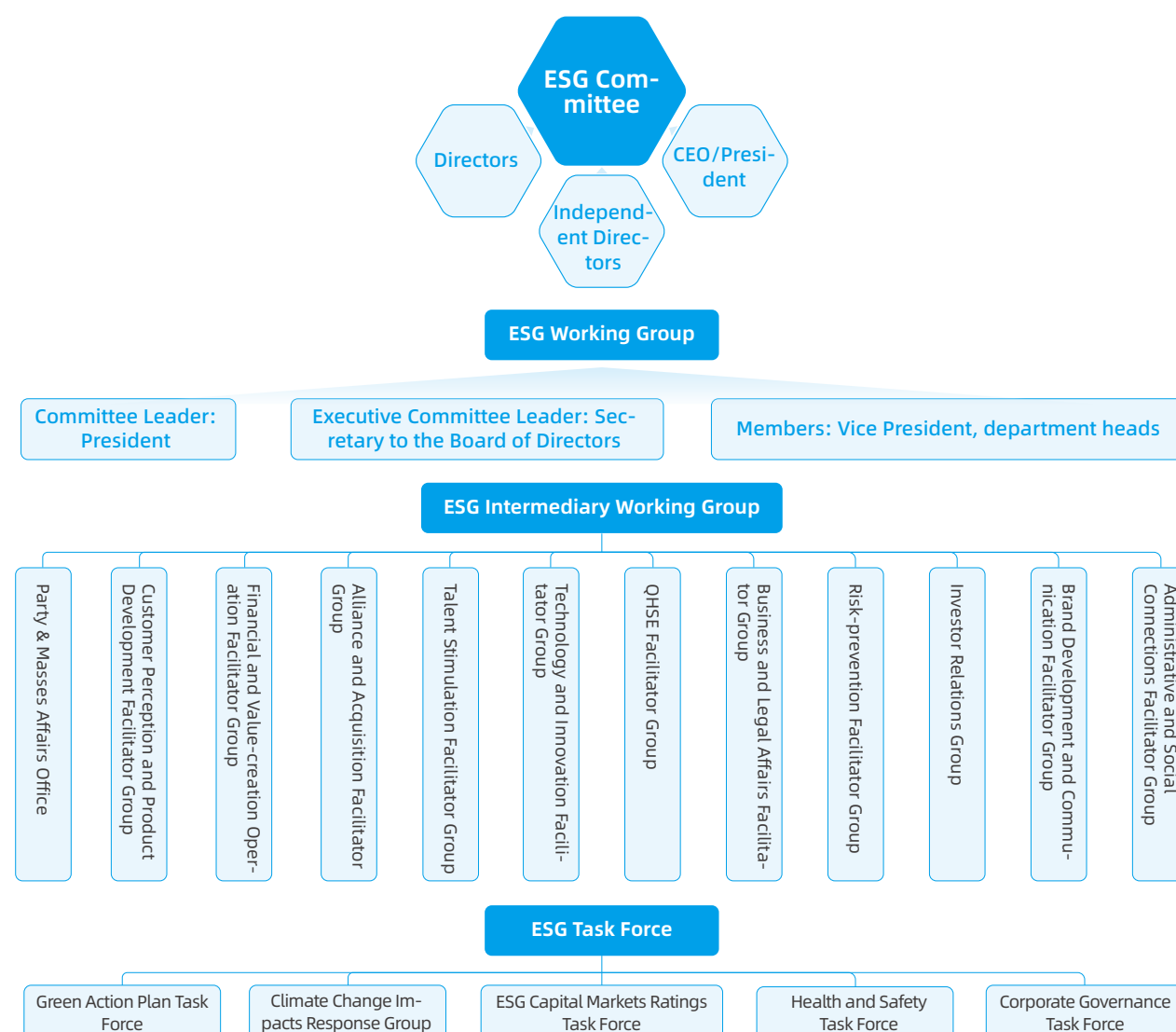
## ESG Goals

Area		Goals/Commitments	
		2025	2030
<b>Environmental</b> 	Natural gas direct sales business Energy production business	To reduce GHG emission intensity by <b>20%</b>	To reduce GHG emission intensity by <b>50%</b>
	Natural gas distribution business	To reduce GHG emission intensity by <b>10%</b>	To reduce GHG emission intensity by <b>20%</b>
		Strive to reduce the average methane emission intensity in the natural gas production process to less than <b>0.25%</b> in joint efforts with other Chinese oil and gas companies' methane emission control alliance partners	
	Integrated energy business	/	To reduce GHG emission intensity by <b>48%</b>
<b>Social</b>	To reduce injury rate per million man-hours to <b>0.75</b> by 2030		
<b>Governance</b>	To increase proportion of female directors to <b>30%</b> by 2030		

\* The base year for the natural gas direct sales business and the energy production business is 2020, and the base year for the natural gas distribution business and the integrated energy business is 2019.

## ESG Management

In order to better standardize and professionalize the management of sustainable development, ENN-NG established an ESG Committee led by our vice chairman and mainly composed of independent directors, directly responsible for the supervision, management and guidance of our ESG-related matters.



- ESG Governance Structure of ENN-NG

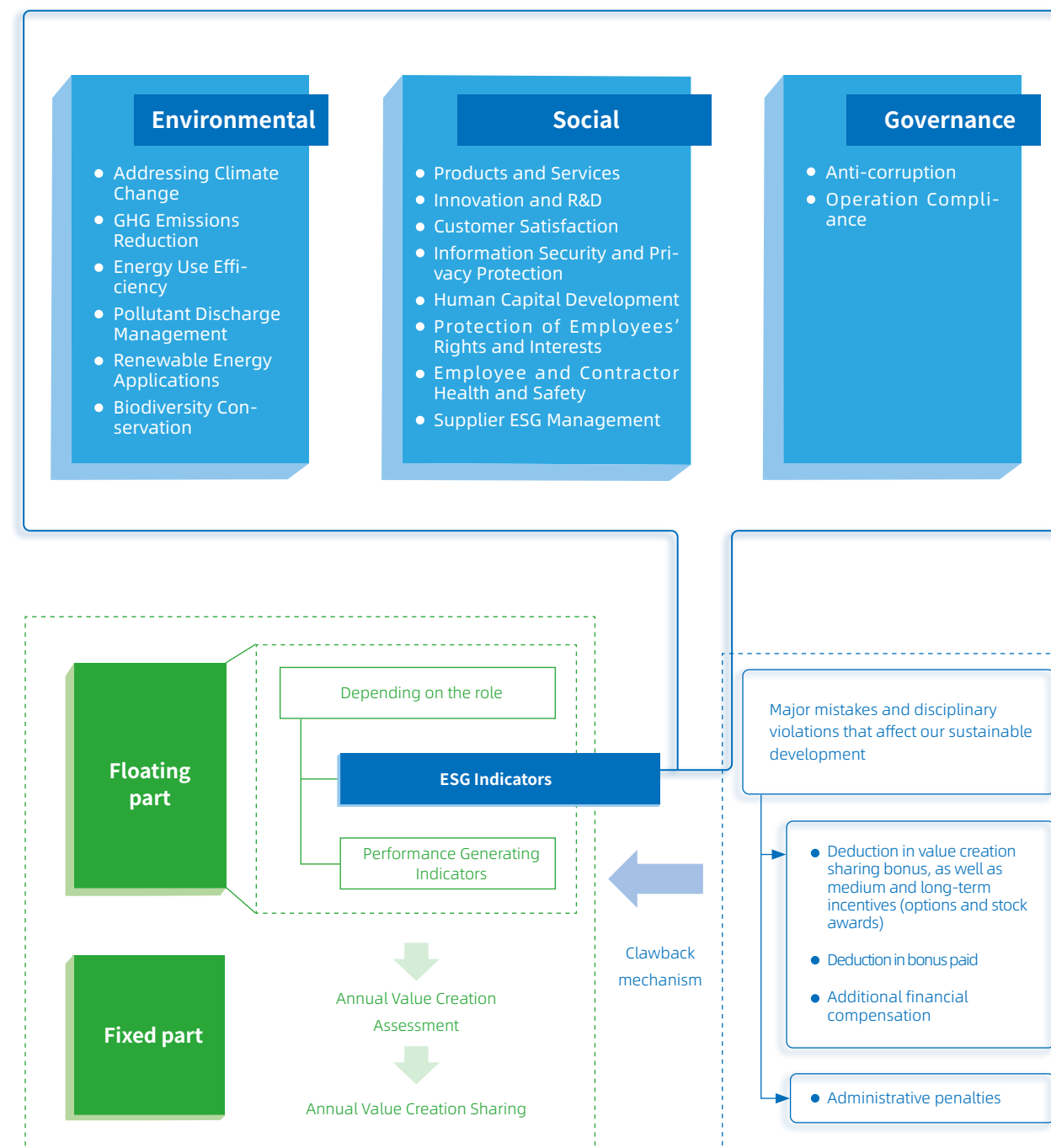
### In 2022, ENN-NG held 2 meetings of ESG committees

In March, the ESG Committee reviewed the Company's 2021 ESG Report, heard a presentation on the Company's ESG-related work at the meeting, and updated the ESG Committee's terms of reference;

In November, the ESG Committee heard a report on the results of ESG-related work and made a plan for ESG key work and improvement in the next year.

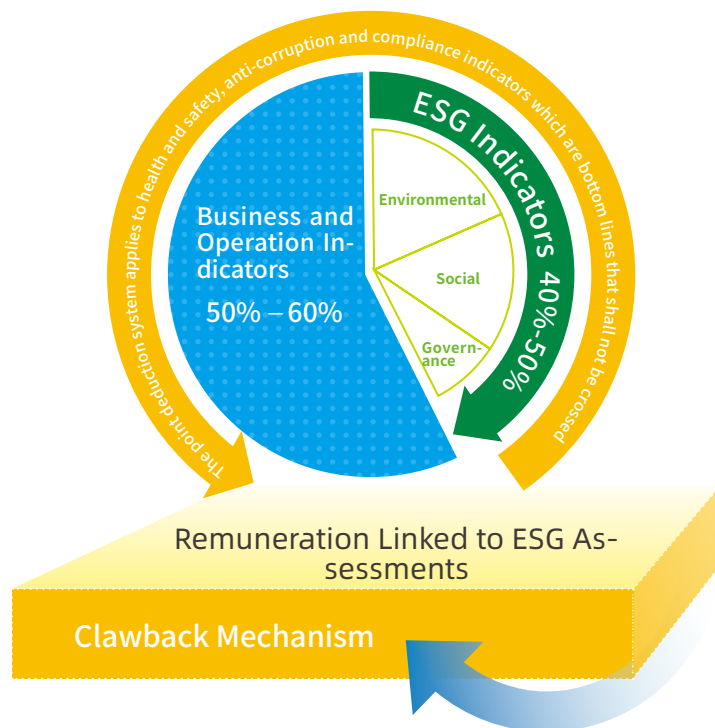
## Remuneration Structure

ENN-NG linked the remuneration of non-independent directors and senior management to ESG performance indicators and included such indicators in the annual value creation assessment. Our member companies and departments have set corresponding annual ESG assessment indicators. The completion of ESG performance assessment directly affects the total amount of incentives for directors, senior officers, member companies and departments, with an aim of supervising and guaranteeing the implementation of sustainable development work of the Company.



- ENN-NG's ESG Performance Indicators Linked to Remuneration





- The extent to which the remuneration of non-independent directors and senior officers of ENN-NG is linked to ESG and the clawback mechanism

The Company has established a remuneration clawback, bonus return and long-term equity incentive mechanism. According to this mechanism, the Company reviews and assesses the performance of the members of the Board of Directors and senior management on an annual basis or when significant changes occur, and has set a maximum vesting period of four years for variable CEO remuneration. To achieve sustainable business development, we have established finance-related performance indicators for the Company's co-CEO, including net profit and operating cash flow.

In addition, ENN-NG has established an equity policy for executive directors and the CEO, which requires executive directors and the CEO to hold shares worth no less than five times their salary. To protect the interests of shareholders, the remuneration plan and remuneration policy for all members of the Company's Board of Directors must be voted annually in the general meeting of shareholders before implementation. The 2021 Annual General Meeting of Shareholders (June 2022) considered and approved the *Proposal on the Remuneration of Directors of the Company for the Year 2021*; the remuneration plan and remuneration policy for all members of senior management must be voted annually by the Board of Directors before implementation. The Board of Directors considered and approved the *Proposal on the Remuneration of the Senior Management of the Company for the Year 2021* in March 2022.

Breakdown of Remuneration of the Board Members (In RMB10 thousand)

Name of Directors	Allowance of Directors	Salary and Allowance	Short-term Incentives	Total Remuneration	Insurance and Housing Provident Fund
Wang Yusuo	-	290.0	-	290.0	-
Yu Jianchao	-	150.0	150.0	300.0	10.3
Han Jishen	-	150.0	150.0	300.0	10.45
Zheng Hongtao	-	200.0	200.0	400.0	13.88
Jiang Chenghong	-	-	-	-	-
Zhang Jin	50.0	-	-	50.0	-
Wang Zizheng	50.0	-	-	50.0	-
Tang Jiasong	16.5	-	-	16.5	-
Zhang Yu	16.5	-	-	16.5	-
Chu Yuansheng	10.0	-	-	10.0	-
Wang Chunmei	10.0	-	-	10.0	-

# Compliance with Ethics and Operation with Integrity

ENN-NG continues to develop a solid compliance control system, strictly implements anti-bribery and anti-corruption measures, intensifies the supervision over corporate and personal business ethics, encourages reporting and complaints against corruption and violations of business ethics, and actively builds an integrity culture.

## Business Ethics

The Company strictly abides by laws and regulations related to anti-corruption and business ethics, and has issued a series of policy documents within the Company to ensure the Company's compliant operation through a sound system and supervision system.

ENN-NG adheres to "zero tolerance" against violations of business ethics. It has established a management mechanism led by the Board of Directors, which is in the charge of the Legal Affairs and Compliance Facilitator Group, the Risk-prevention Facilitator Group and other relevant functional departments. The Board of Directors is responsible for the review and decision-making system and planning, supervision of implementation at all levels, and decision-making on the treatment of major corruption cases.

At the same time, the company has formulated the "Integrity and Compliance Code" and set up relevant employee performance evaluations for the implementation of the code of conduct. For behaviors that seriously violate the requirements of the Integrity and Compliance Code, the company will impose penalties in accordance with relevant regulations such as the company's employee violation and disciplinary punishment management regulations.

### Business Partners

- Treat business partners fairly, make all business decisions on legitimate business considerations and criteria rather than personal relationships or interests
- Review the qualifications, integrity and compliance performance of each business partner with a strict standard, and select partners with good will and complete qualifications

### Corruption and Commercial Bribery

- It is prohibited to offer anything of value or any advantage directly or indirectly to anyone, including government officials, in exchange for preferential treatment or convenience
- It is strictly forbidden to directly or indirectly give any benefits to others for acquiring business opportunities and benefits, and it is also forbidden to directly or indirectly accept or ask for any benefits from others in business activities
- No individual employee shall accept any kickbacks or commissions

### Anti-money-laundering

- Abide by all applicable domestic and foreign anti-money-laundering laws and regulations in business activities, conduct due diligence, and fully understand business partners
- Report any unusual or suspicious activities in dealings with business partners or customers promptly
- Strictly abide by the Company's financial rules and procedures, do not accept any irregular cash payments, and do not make any payments to non-trading accounts and abnormal accounts; in the event of any suspicious behavior, consult the compliance management department and keep relevant evidence

### Avoidance of Conflicts of Interest

- Employees are prohibited from investing in any non-listed companies that compete with the Company, working part-time for any employers who have conflicts of interest with the Company, or providing assistance to any competitors
- Employees shall not use their powers to seek benefits for themselves or for others, shall not intervene or interfere with the Company's bidding and tendering, contract signing, market access and other businesses, shall not designate or instigate the designation of any trading partners, and shall not disclose any inside information to specific related persons

## Anti-monopoly

- It is prohibited to enter into any monopoly agreements with any competing operators
- In a field with market dominance, do not sell goods or services at unfairly high prices or purchase goods or services at unfairly low prices, do not sell below cost prices without any justified reasons, limit transaction counterparties, engage in tie-in sale or refuse to sell or add unreasonable transaction conditions and treat transaction counterparties in a differential manner
- When merging, acquiring or otherwise obtaining control over other operators, consult the compliance management department of the Company in advance, and report in strict accordance with procedures stipulated by law if it meets the centralized operator review standard

## Anti-unfair-competition

- It is prohibited to fabricate or disseminate any false news or damage competitors' reputation with misleading information
- It is forbidden to falsely publicize any content of services, products, technologies and other services provided to customers

## Political Contribution

- All forms of political contributions are prohibited, including but not limited to donations and contributions to organizations that support illegal activities or terrorist activities, violate international conventions or discriminate based on religion and gender

To strengthen business ethics and anti-corruption management, all the Company's operating premises carry out internal audit work based on three-year cycles, and conduct annual audits for key businesses. Meanwhile, we conduct a company-wide special audit on business ethics and anti-corruption on a yearly basis, focusing on key personnel in key business areas, promote rectifications through investigation on problems found in the audit, and supervise the implementation of closed-loop management. We will continue to build a transparent, open, honest and conforming corporate image through internal review on the compliance with and implementation of the Company's policies regarding business ethics.

### Conscience is the bottom line

We strictly incorporate the compliance with conscience requirements under the Employee Code of Conduct, the Code of Integrity and Compliance, etc. into the employee value creation assessment and promotion system.

In 2022 and the past five years  
**No expenses**  
related to political contribu-  
tions and political lobbying

### In 2022, ENN-NG

**Did not have any violation**  
against the Company's code of business  
ethics

**Did not have any employees**  
that were dismissed or disciplined for  
violating the business ethics

**Did not have any**  
corruption-related lawsuits

**Did not have any**  
unfair competition

Percentage of employees that had signed the  
*Employee Code of Conduct* and the *Code of  
Integrity and Compliance*

**100 %**

Percentage of suppliers that had signed the code of  
conduct agreements

**100 %**

Percentage of contractors that had signed the code of  
conduct agreements

**100 %**

## ENN Energy Had Launched ISO 37001 and ISO 37301 Certifications

In October 2022, ENN Energy launched the ISO 37001 anti-bribery management system certification and the ISO 37301 compliance management system certification. By the end of 2022, the Company had completed internal self-examination and carried out system amendment and supplementary process construction in strict accordance with relevant certification standards.



- Anti-bribery management system and compliance management system certification kick-off conference and internal auditor qualification training conference

ENN-NG is actively promoting an environment of integrity through the construction and promotion of an integrity culture. The Company has signed codes of conduct with its employees, suppliers, and contractors to ensure ethical practices. In 2022, ENN-NG organized several business ethics and anti-corruption training sessions and relevant activities for the Board of Directors, Board of Supervisors, and all employees, including interns and part-time employees.

### Number of Participants and Hours of Business Ethics and Anti-corruption Training at All Levels in 2022

Number of officers receiving an-  
ti-corruption and other training

**960**

Number of key employees receiving  
anti-corruption and other training

**2,887**

Total hours of directors receiving  
anti-corruption and other training

**235** hours

Total hours of employees re-  
ceiving anti-corruption training

**3,440** hours

Number of em-  
ployees receiving  
anti-corruption  
and other training

**7,168**

Made a small video of "Building a Clean Ecology Together" for the publicity and training on the concept of clean cooperation to its partners, promoting the joint construction of a clean ecology with the partners;

Selected internal and external alert cases, and published 6 issues of Alert Education Bimonthly throughout the year for all the employees to study;

Invited external experts, to provide training on Analysis of Violations of Laws and Regulations by Directors and Supervisors of Listed Companies and Prevention and Alert of Duty-Based Crimes by Enterprise Employees to the Board of Directors, Board of Supervisors, senior management and employees of the Company, to enhance their awareness of integrity.

ENN-NG's, Anti-corruption Training

In 2022, the Company provided anti-corruption training to all employees, which focused on introducing corruption-related national policies, identifying corporate operations where corruption is likely to occur, and explaining the Company's anti-corruption mechanism. This training emphasized the Company's commitment to anti-corruption efforts and increased employees' awareness of integrity.

Through a continuous cycle of anti-corruption alerts, pre-control, and supervision, as well as the implementation of a label-reinforced reputation-driven strategy and digital-intelligent monitoring, all individuals and organizations have achieved the objective of "not daring to be corrupt," "not being corruptible," and "not wanting to be corrupt".

(1) Alert

Disclose and confirm key risk rules, bottom line behaviors and alert information through digital intelligence technology based on the full cycle and full business scenarios of business partners and ecological partners

(2) Pre-control

Focus on sensitive roles or subjects in high-risk scenarios, make full use of digital intelligence monitoring technology driven by the risk label mechanism, to realize "full-time" and "full-scenario" pre-control of corruption behaviors

(3) Supervision

Reinforce the acquisition of anti-corruption information through the optimization of reporting channels, digital intelligence of audits and networked inspections; strengthen joint projects and judicial cooperations, and strengthen capabilities in special cases; pass on the anti-corruption positive energy through an effective accountability and alert dissemination mechanism

Business partner

General Manager, sales staff, procurement staff, engineering staff, financial staff and other key roles

On-boarding contracts	Sign the Employee Code of Conduct, Penalty Regulations, Letter of Commitment to Integrity, Code of Integrity and Compliance and Confidentiality Agreement
On-boarding training	Training on the "Corporate Culture" and "Code of Conduct and Anti-corruption Training" and examination related thereto
Appointment	Pre-appointment "Alert Talk" and "R Push" for General Manager and key positions, to push bottom line alerts for such roles
Performance process	Anti-corruption training for key positions and push micro-classes on a regular basis based on big data of high-risk scenarios; early warning on high-risk behaviors in business scenarios for various products
Employment separation	Sign the Confidentiality Agreement, and the Non-competition Agreement for key roles

Bottom line behavior + reputation  
mechanism + penalty regulations

Ecological partners

Those in charge of procurement, engineering and supervision as well as related suppliers or partners

Before the authorization for access to the platform, the system will push the Integrity Requirements, the Commitment of Integrity will be signed for access to the system, and the Blacklist rules and legal requirements will be provided	Access
As a prerequisite for bidding, a supplier or partner shall attach the Commitment of Integrity in bidding documents	Bidding
Form a system order or sign a contract, and at the same time sign the Integrity Agreement	Contract
Both the delivery system and documents are printed with a reminder of the Integrity Regulations, and alerts are pushed on festivals, supplier annual meetings or forums	Delivery process
Attach additional scenario-based alert information when supplier reputation and label change	Label change

ENN-NG's anti-corruption training materials

Complaint and Whistle-blowing

ENN-NG has established an informant and consulting service center that provides multiple public channels for accepting business ethics, anti-corruption, and compliance complaints, including telephone, email, WeChat, website, and public bulletin boards. These reporting channels are available in local languages for all stakeholders, and regular communications and training sessions are held for employees, suppliers, customers, and other stakeholders. The Company has a dedicated complaint specialist who checks complaint information from various channels and meets with petitioners and complainants daily. ENN-NG formulates investigation plans and organizes investigation teams to prepare investigation reports, ensuring the timely and effective handling of complaints and reports.

In the event of an identified incident, the Company will require the investigated unit to make rectifications, and will track the handling results in accordance with the Measures for Penalties on Employee Violations of Regulations and Disciplines. The investigation documents will be archived and kept for future reference. Relevant employees who violate regulations and disciplines will face administrative and financial penalties.

The Company accepts anonymous reports and strives to protect whistle-blowers from retaliation. Without the consent of the supervisor and the complainant, the Company will not disclose or make public any information of the whistle-blower or the content of the report by any means. The Company will impose severe penalties on responsible persons that violate the confidentiality regulations, who, if committing crimes, will be handed over to the judiciary organ.

The Company accepts anonymous reports and takes measures to protect whistle-blowers from retaliation. The Company will not disclose or make public any information about the whistle-blower or the content of the report without the consent of the supervisor and the complainant. The Company will impose severe penalties on those responsible for violating confidentiality regulations, and if they commit crimes, they will be handed over to the judiciary authorities.





# Reinforced Risk Control and Sound Operation

ENN-NG has continued to strengthen its risk management and control efforts and has established an improved system for risk management and control based on operational compliance. Through comprehensive and effective risk management and control measures, the Company ensures stable operation and healthy development.

## Legal Compliance

ENN-NG has established a comprehensive compliance management system that includes nine departments of the Company, such as the Co-CEO, Vice President, Legal Department, Finance Department, and Talent Inspiration Empowerment Group. The Company regularly revises and improves relevant internal rules in strict compliance with the laws and regulations of the country and the places where it operates. In 2022, we issued and updated 29 internal rules that cover areas such as investment management, health and safety, environmental protection, technological innovation, and charity. Additionally, the Company has established a digital intelligence management system to process basic legal information (such as litigation and penalty information of its subsidiaries) and qualification and certificate information in a timely manner.



• ENN-NG Compliance Management Structure

### In 2022, ENN-NG

Conducted 41 compliance trainings with a total of

**4,503** participants

**10,976** training hours

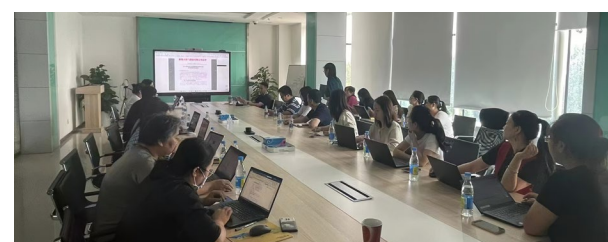
Conducted 1 major thematic compliance training, with a total of

**320** participants

**480** training hours

## Re-cognition Training on Major Contractual Business Letters

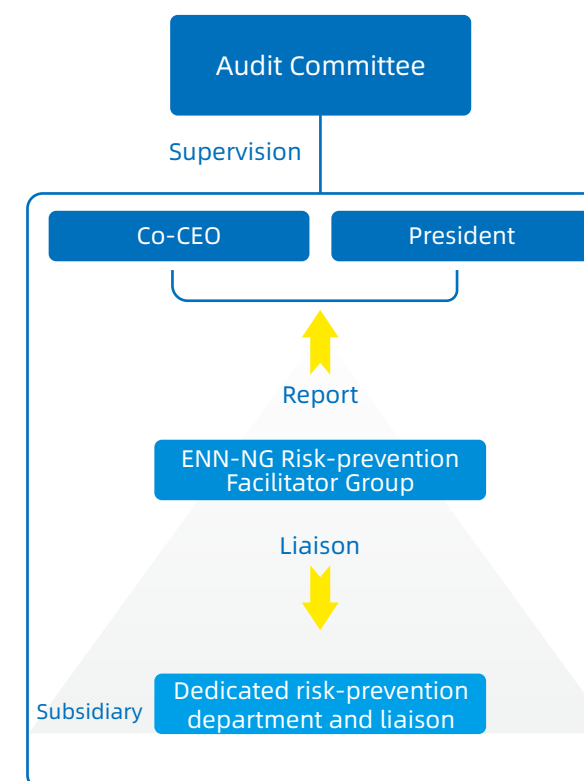
In 2022, ENN-NG conducted re-cognition training on major contractual business letters. This training explained the definition of major contractual business contracts and introduced procedures for issuing major contractual business letters. The training helped the trainees develop a deep understanding of the definition and significance of business letters, and master the usage norms of major contractual business letters.



• Scene of re-cognition training on major contractual business letters

## Risk Control

To ensure the effective management of risks in all aspects for the Company, ENN-NG has established a risk supervision mechanism with clear responsibilities, which is independent from business departments. Wherein, the Audit Committee under the Board of Directors is responsible for the supervision of overall risks for the Company, providing guarantee for the sustainable and healthy development of the Company.



• ENN-NG Risk Governance Structure

### Annual Report

- Value creation plan (annual work plan)
- Memorandum of "Co-creation, Co-action, Co-sharing" (Value Creation Goal)
- Reports to Co-CEO and President

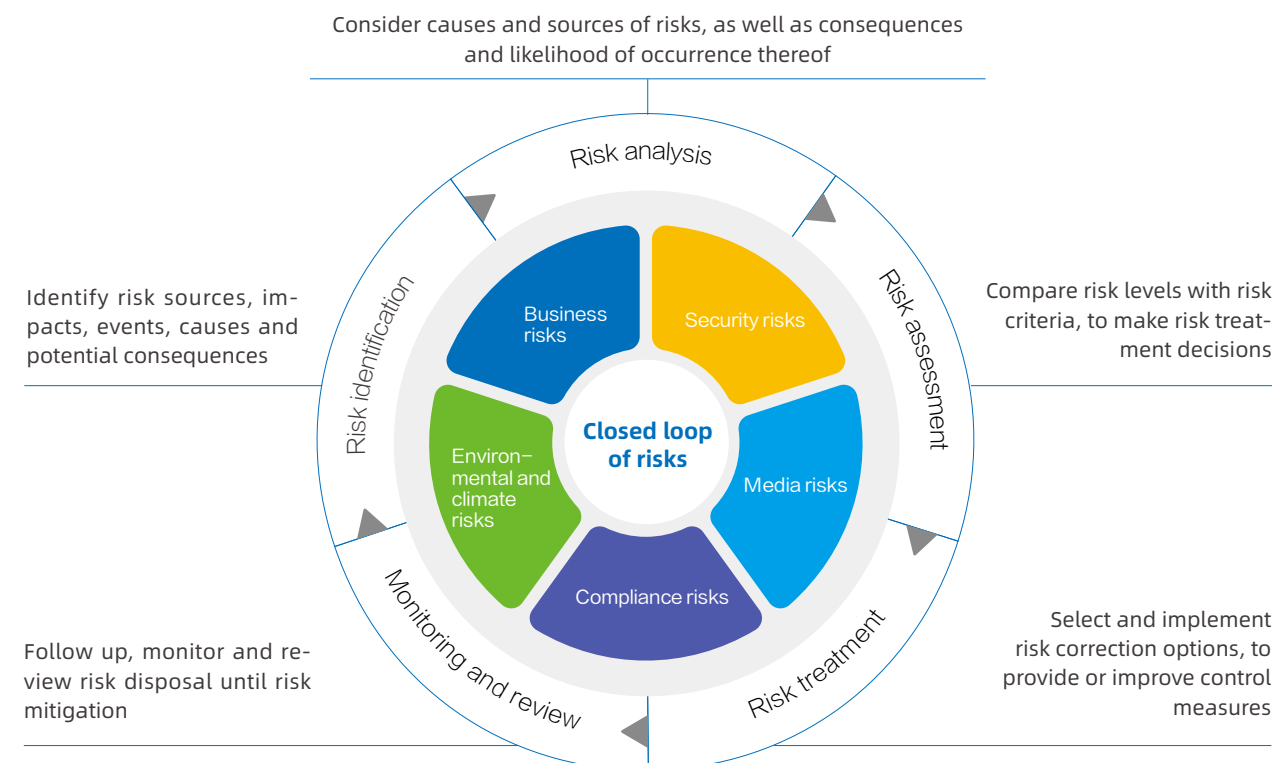
### Daily report

- Collaborative value creation weekly
- Monthly regular meeting of President's Office
- Quarterly value creation review

### Special report

- Project summary report
- Rectification report
- Special risk-prevention work report

• ENN-NG risk work reporting process and frequency



- ENN-NG risk identification and counter-measures

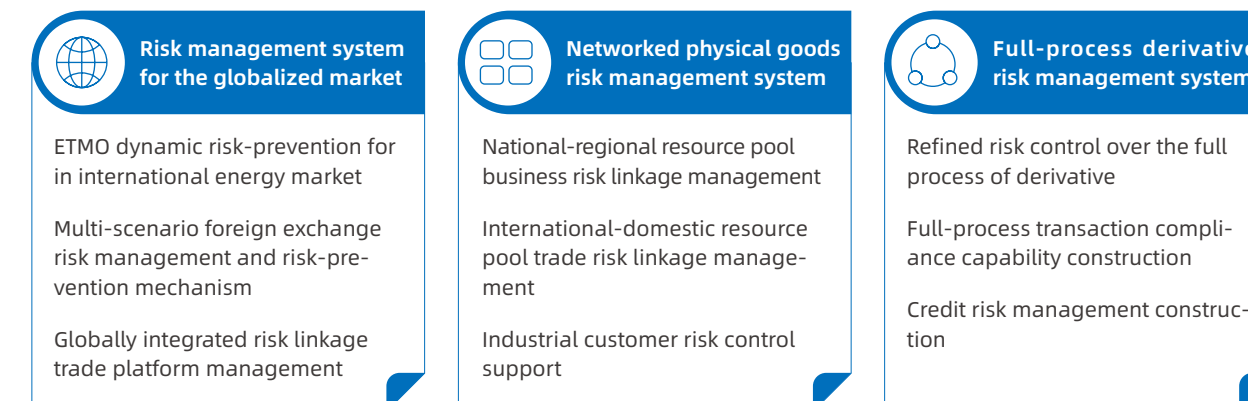
### ENN-NG takes multiple actions to keep optimizing risk manage- ment measures and reduce the probability of potential risks:

- Integrate risk management into the entire pro-  
cess of the Company's daily operations, product  
development and supply chain management, to  
guarantee the effective control of various risks
- Carry out risk identification and assessment on  
a regular basis, optimize risk response plans,  
and improve the risk database
- Carry out audit and supervision work, and eval-  
uate the risk response plan as well as the effect  
of its implementation
- Develop risk-related incentives for the man-  
agement and employees and incorporate  
them into performance assessment
- Carry out risk training to enhance the employ-  
ees' awareness of risk avoidance
- Encourage the employees to take initiative to  
identify and report potential risks, to create a  
risk management culture

#### Identification of and response to major long-term emerging (potential) risks:

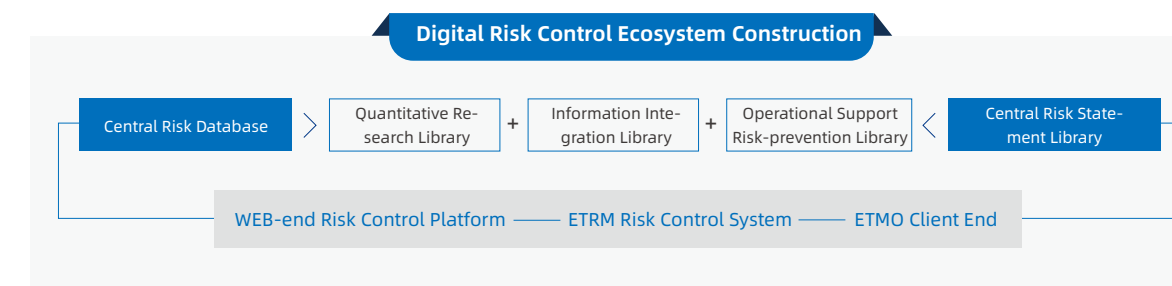
- Climate change risk: Formulate and update management measures for identified risks in the TCFD frame-  
work, to reduce the negative impact of the climate change risk on the Company.
- Information and network security risks: Coordinate digital security-related work and effectively ensure  
information security with the Safety Production Committee at the level of Board of Directors as the  
highest authority and with a Digitalization Committee affiliated thereto.

### The Company improves operational certainty by comprehensively reinforcing risk management capabilities:



### Introduction of ETRM System and Development of Corresponding Mobile Product ETMO

The Company has introduced the ETRM system, a world-leading commodity energy trade risk management system, and developed a corresponding mobile product named ETMO to achieve end-to-end digital management of do-  
mestic and international markets. This system can detect and respond to potential risks in a timely manner, reduce  
risk-related losses, and protect the interests of both the Company and its shareholders.

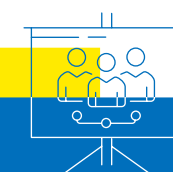


2022

ENN-NG conducted risk management train-  
ing and exchanges in key business areas to  
enhance the non-executive directors, man-  
agement and employees's risk management  
capabilities and awareness.

ENN-NG participates in exchange activities on  
digital intelligence risk alert ideas and tool appli-  
cations to enhance the Company's awareness of  
digital intelligence risk control and strengthen its  
concept of intelligent risk pre-control.

over **450** persons in total in relevant training



Continue to optimize digital intelligence risk management products, to further realize comprehensive risk management

Introduction to functions of digital intelligence risk alert products

R Push

- Over 20 risk early warning models, covering engineering, safety, operation, customer service, finance and other key risk areas

R Search

- It covers various business scenarios, and provides a variety of risk solutions including risk portraits, risk identification methods and prevention strategies



Intelligent Public Opinion Information System

ENN-NG's intelligent public opinion information system is built based on AI technology and can monitor and analyze public opinion information quickly and accurately in real-time. The system can explore public opinion information in a cross-platform manner and provide automatic public opinion analysis services to achieve effective public opinion management and real-time updates and feedback of market information.



- Intelligent Public Opinion Information System

Assets Integrity

ENN-NG places great importance on the management of its assets, with the Board of Directors as the highest authority for assets integrity management. The Company pays close attention to the integrity of its gas infrastructure to ensure effective, efficient, and safe operation of plants, pipe networks, and other assets. We have formulated the Pipeline Integrity Standard System Document and other assets integrity rules covering 35 standards, including data collection and integration operating procedures, key control area identification operating procedures, regular inspection guidelines, risk reduction and maintenance management procedures, and efficacy evaluation operating procedures to standardize the full process of assets management from the design, construction, operation, and maintenance of plants and pipe networks. Additionally, we conduct full-process risk analysis of assets using digital and intelligent means and promptly correct any potential safety hazards to ensure the integrity and safety of plants and gas transmission and distribution pipe network assets.

In 2022, the Company conducted asset audits for various times, inspected inventory management and other parts, promptly risks in a timely manner, and formulated corresponding risk management measures. Meanwhile, training was provided for the authorization, approval and filing procedures adopted in assets leasing, disposal and other parts of assets management, so as to enhance the awareness of all the employees to protect the Company's assets.

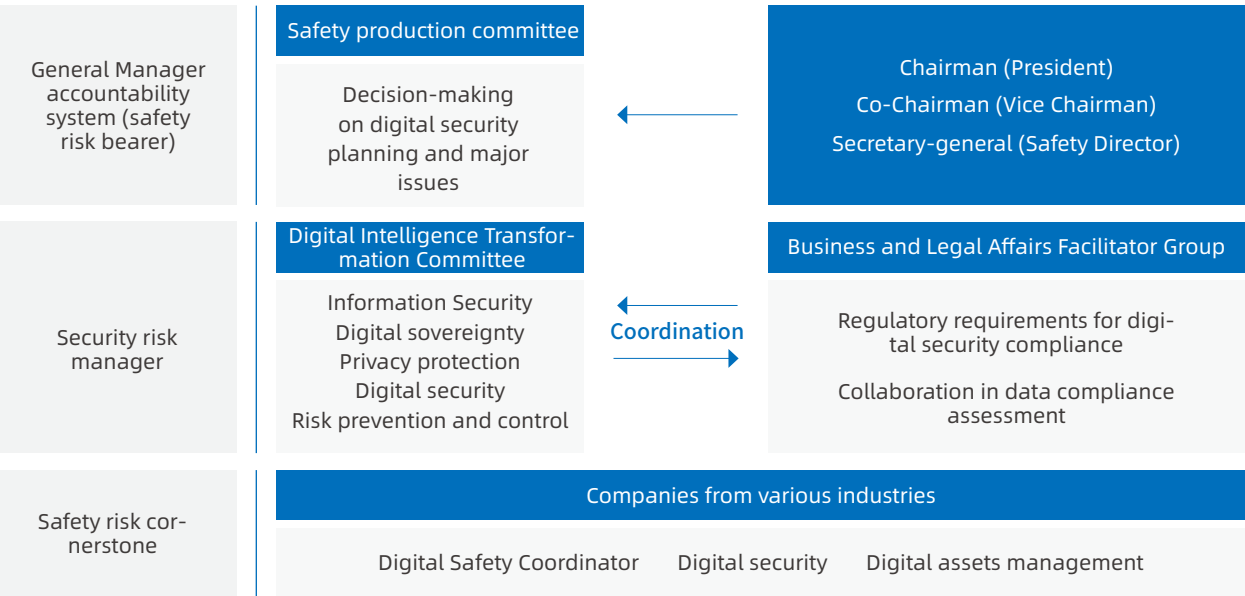
Information Safety

0

Major Cyber Security Complaints or Incidents  
Complaints or Incidents Related to Digital Security and Privacy Protection

Management Structure

With the continuous progress of ENN-NG's digital and intelligent transformation, the Company attaches great importance to network and information security protection. We have established a data security management structure, where the Safety Production Committee at the level of the Board of Directors is the ultimate responsible organization, the Company's President (director) serves as the Chairman of the Committee, and the Security Supervisor serves as the secretary-general, to coordinate in and take charge of internal security matters, with a Digital Intelligence Transformation Committee in charge of digital security and privacy protection, to protect the Company's network and information security effectively .



- ENN-NG's data security management structure



## Privacy protection

ENN-NG places great importance on privacy protection and manages privacy and security risks through digital intelligence products. The Company regulates information collection, use, sharing, storage, and other processes and reviews the compliance of the privacy policy regularly. ENN-NG's privacy policy covers all employees, customers, and suppliers, and formulates specific preventive measures such as desensitization and encryption, firewalls, classification protection, and data backup based on business scenarios to prevent personal sensitive information and important data from leakage and loss. The Company also formulates penalties for violations. In case of the disclosure of personal information, the Company has developed special rules and procedures and technology coordination programs to ensure information security compliance.

### In 2022

ENN-NG updated the on-line and off-line account opening agreements and privacy agreements for its users, and completed the update of privacy agreements for 8 APPs, such as E-car, E-station, SERLINK and Huiyongneng.

We have provided pre-post training and data compliance training for employees, to improve their awareness of customer privacy protection, and enhance their awareness and ability of customer information protection.

Third-party privacy policy compliance audits have been carried out for 12 times, and no consumer data leakage incidents or complaints against privacy violations have ever occurred.

## Third-party Audits and Certifications

In 2022, the Company invited third-party organizations for special auditing and information security testing twice a year on the information security management system:

- Safety testing has been completed for 8 major systems, with a rectification of **100%** percentage for 388 security issues
- Special safety compliance assessment has been completed for 11 APPs, with a rectification percentage of **100%** for 53 security issues
- A completion percentage of **100%** for the management of accounts of all employees, special cleanup of accounts of resigned employees and R&D system code authority management
- ISO 27001 Information Security Management System Certification
- ISO 27701 Privacy Information Management System Certification
- ISO 9000 Quality Management System Certification
- ISO 20000 Information Technology Service Management System Certification
- CMMI3 Software Capability Maturity Model Certification
- Filing of information system security level protection



## Emergency Response

The Company has formulated a response mechanism and a security emergency plan for major security incidents, and has established a joint working mechanism with national and provincial digital intelligence security supervision departments for security alerts and security investigations through joint network security emergency drills, so as to enhance the ability to respond to network security emergencies.



## Cultural Construction

- April 2022 is the Digital Intelligence Safety Month of the Company. Through various means such as posting digital intelligence safety posters, distributing the Guidelines to Digital Intelligence Safety Measures, and organizing off-line digital intelligence safety knowledge quiz shows, the Company has enhanced the employees' awareness of digital intelligence security and professional skills, so as to shape its information security culture.
- The Company has carried out network information security compliance training and assessment, with 2,195 participants, with a coverage and pass rate of key personnel up to **100%**





# 02

## Ensure Operational Safety and Consolidate Development Cornerstone

### Material ESG issues addressed in this Section

- Occupational health and safety
- Customer's health and safety
- Safe and stable gas supply
- Customer satisfaction

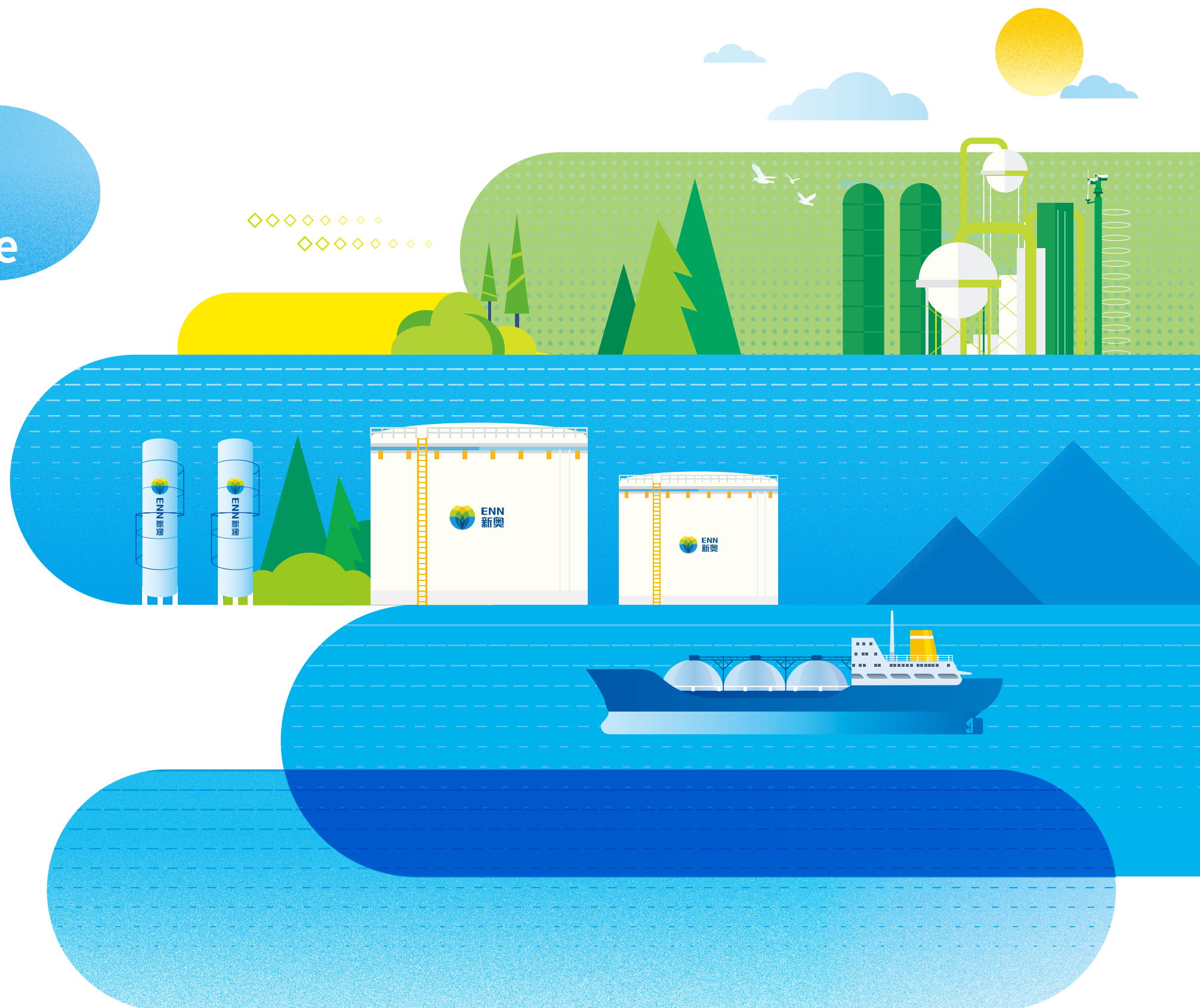
### ESG goals addressed in this Section



### HKEX ESG indicators included in this Section

- B2 Health and Safety
- B6 Product Responsibility

Leveraging safe digital intelligence, ENN-NG has realised a safe and intelligent operation management system that can identify hidden risks, address major risks and effectively manage risks under all business scenarios based on safe digital intelligence that enables a two-way empowerment between production safety and digital intelligence safety, furthering the practice and implementation of “full-scenario safety”, thereby building the Company’s brand in the field of safe production. The Company holds the safety and health of all stakeholders to its responsibility endlessly refining and improving the safety management structure and system construction to provide safe production, and creating a good safety culture atmosphere, to ensure the health and safety for employees, contractors, customers, and local communities.





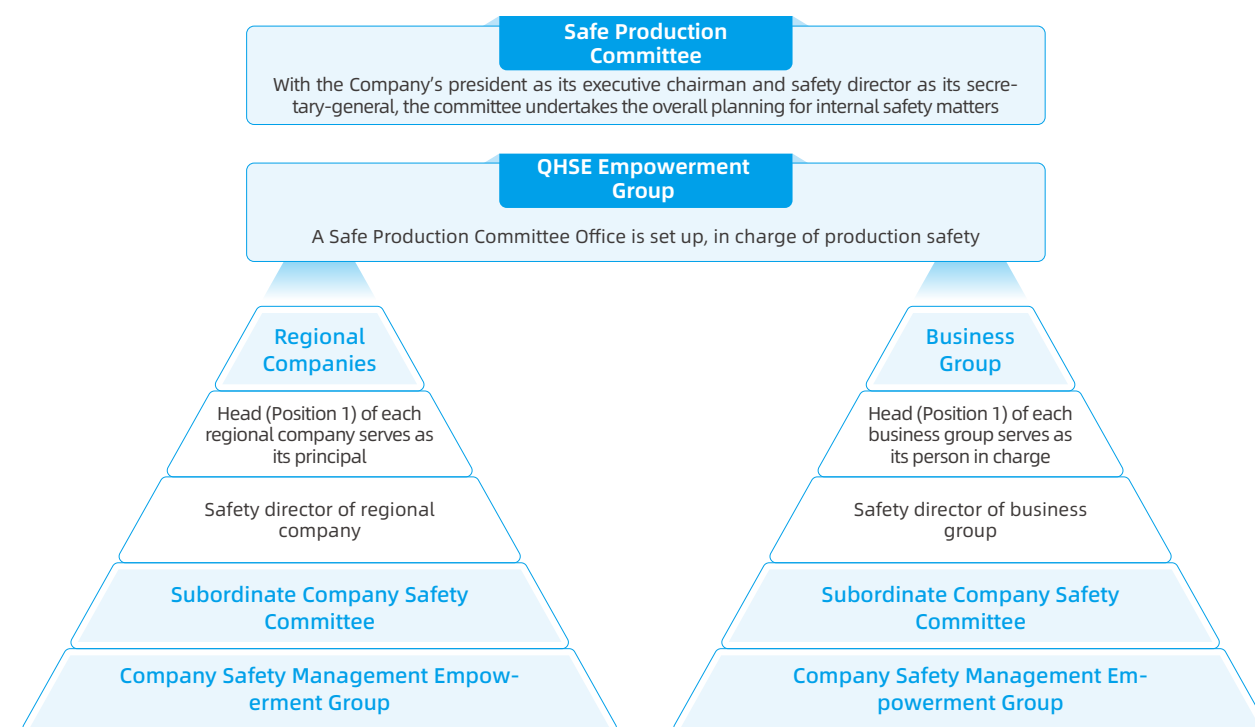
# Ensure Health and Safe Production

Bearing in mind safe production, ENN-NG has put forward various management requirements for safe operation and occupational health, etc., as well as detailed health and safety management plans and implementation paths, used digital and intelligent technology to solve safety problems, and established awareness of risk pre-control, to continuously improve its health and safety performance.

## Digital Intelligence Empowerment Safety Management

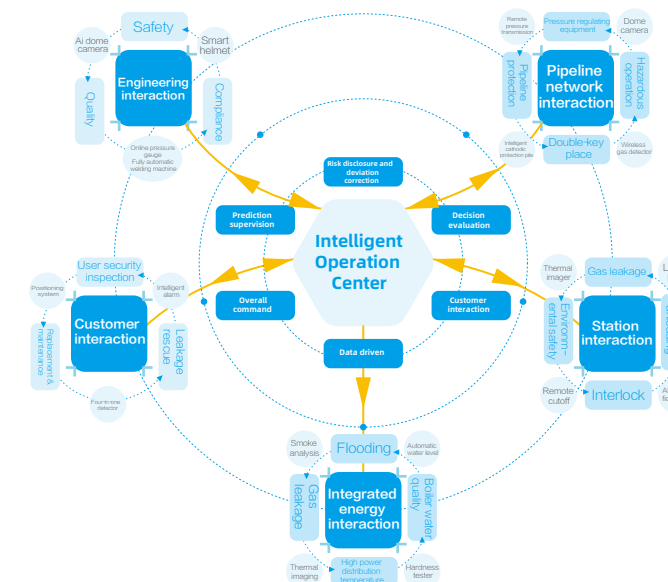
### Digital and Intelligent Safety Management System

With constant efforts to improve its safety accountability management structure, ENN-NG has established a safety committee that direct reports to the board of directors, which has members including the Company's president, Co-CEO, and safety director. Meanwhile, the Company has linked safety performance to the compensation of its directors and officers, effectively enhancing the safety supervision capabilities.



• Safety Management Structure

ENN-NG keeps exploring digital and intelligent safety management, and has built a safety risk control mechanism through digital and intelligent safety technology to further improve its intrinsic safety level. Based on the logic of "LoT Sensing + Production Process Early Warning and Risk Disclosure + Quick Response", the Company has made available safety digitisation and intelligence and created an intelligent product system covering the entire ecological safety management. With the establishment of 5 business scenarios and 108 sub-scenarios embodying pipeline network, station, engineering, indoor, and integrated energy business, and the help of IoT sensing devices, data pertaining to business operations and relevant users' operational behaviour can be transmitted to the intelligent operation center in real time, whereupon key safety risks of the enterprise can be detected through data collection and AI intelligent analysis for early warning, risk disclosure and safety problem correction, continuously improving the Company's safety risk management capabilities.



• Digital and Intelligent Safety Management System "Under the Control of the Intelligent Operation Center Extending to Multiple Business Scenarios"



• Intelligent Operation Center

Member companies with safety operation centers

44

Safety digital intelligence standards and guidelines

182

IoT equipment

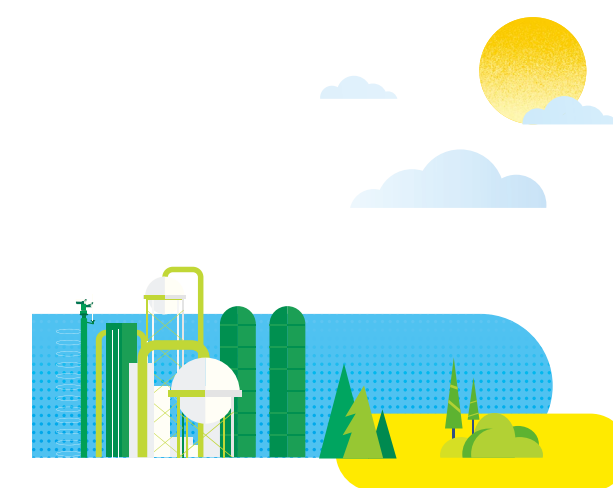
50,000+

Video access

1,400+

Enterprises with digital safety system certification

5



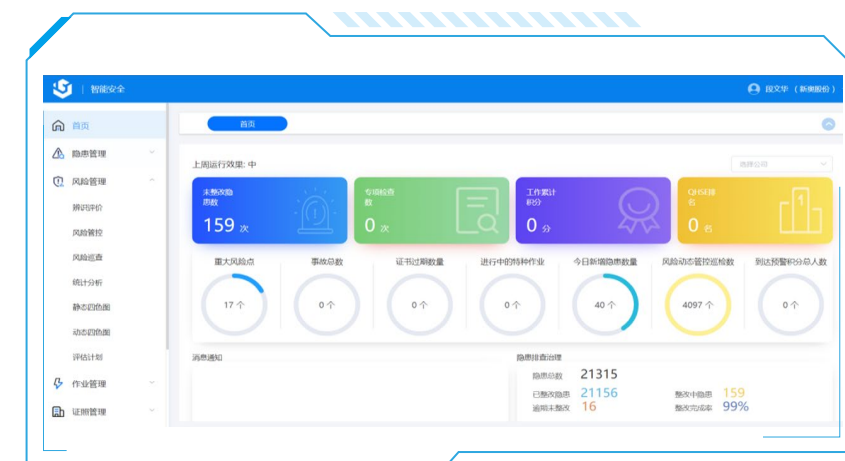


## Optimise and Upgrade the Safety Empowerment and Risk Disclosure System

In 2022, the Company optimised the safety empowerment and risk disclosure platform by adding functions of emergency drill, safety inspection, special task management, and statistic, with which a module giving a list and result summary for the safety performance of 23 roles was launched, the safety accident reporting and other processes were refined, and the safety risk management was enhanced to fulfil the responsibility of guaranteeing safety for all.



- Safety Empowerment and Risk Disclosure System



- ENN-NG Digital and Intelligent Safety Management Platform

By implementing a system of accountability for overall safe production, ENN-NG delved into such targets as safety baseline, key safety task and basic safety assurance level by level, and formulated a safety assessment process specifying the assessment weight and corresponding scores whereby a year-end appraisal will be conducted, taking into account factors including risk control, operation safety, technology safety, hidden hazard investigation and management, ability improvement, and emergency management. A Zero-tolerance policy is adopted by the Company for serious safety accidents, under which, in the event of such an accident, relevant accountable persons will be subject to measures such as demotion, dismissal, and even termination of employment contracts by the Company in accordance with pertinent management rules.

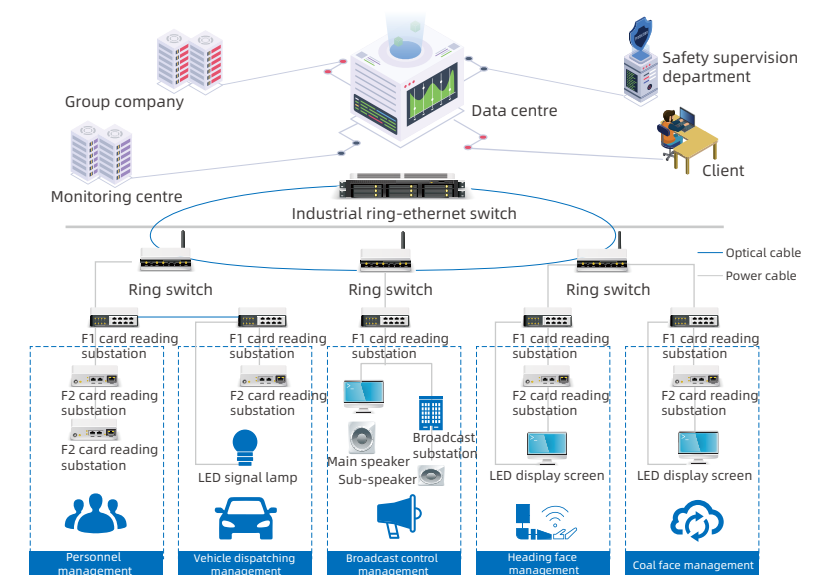
## Digital and Intelligent Safety Management Measures

Always viewing production safety as the lifeline of its development, ENN-NG seeks safety through digital intelligence by promoting the application of digital and intelligent safety products in all business scenarios. We actively identify potential safety risks during production and operation, carry out special operations to eliminate and address potential safety risks, and implement emergency management work for safe production, to resolutely prevent from crossing the safety red line.

## Energy Production Business

Xinneng Energy has adopted an automated control system, AAS advanced alarm management system, laser PTZ, infrared detection and monitoring, and equipment dynamic monitoring system to ensure full-process safety and controllability of production. Meanwhile, it has comprehensively promoted a dual prevention mechanism platform, intelligent video AI identification, special operation computerisation, intelligent patrol, ultrasonic leakage, and personnel positioning both offline and online to well address its challenges on “where there are risks, and how to manage them”, and reinforced the safe production accountability system, thereby improving the efficiency of safety management, and enhancing the level of intrinsic safety management.

Xinneng Mining has implemented an intelligent precise personnel positioning system that enables accurate positioning of multiple vital underground locations with functions such as iris recognition, alcohol inspection and body temperature detection, improving the safety of underground operations through precise location and real-time monitoring. Through intelligent analysis and real-time call, the safety and efficiency of downhole operations are enhanced.



### Improving the level of mine safety management

The precise positioning system enables an accurate monitoring of the precise position and posture of personnel, vehicles, mining and other equipment at any time and place, and further an accurate monitoring of violations, thus improving the level of mine safety management.

### Ensuring downhole safety monitoring

Through the information linkage between the precise positioning system, the mine safety monitoring system, and the communication and liaison system, the downhole safety monitoring can be fully guaranteed.

### Protecting personnel safety

The above-ground monitoring and dispatching personnel is able to quickly select nearby equipment to contact underground personnel based on the location information of the latter, and to conduct rescue command at the first time to achieve accurate and efficient rescue in response to emergency, further ensuring personnel safety.

## Reducing accidents

Vehicle-to-vehicle and human-to-vehicle collision accidents can be reduced through preventing personnel from entering hazardous areas with custom restricted area control.

**Safety effectiveness**

Infrastructure Operation Business

Zhoushan Terminal has launched an online unmanned intelligent shipping system which can, by utilising intelligent access control, integrated card printing machine, weighing metering, filling metering, cameras and other IoT equipment, and in light of such data as arrival plan and driver information from the logistics scheduling platform, provide various functions including electronic listing, self-service card printing, intelligent security inspection and intelligent filling warning through data sharing and intelligent video AI technology, realising intelligent supervision over the entire process of LNG transportation and filling. From the original manual plan verification, card printing, and filling process supervision, to the present unmanned and intelligent management, personnel work intensity has been reduced and on-site operation safety ensured.

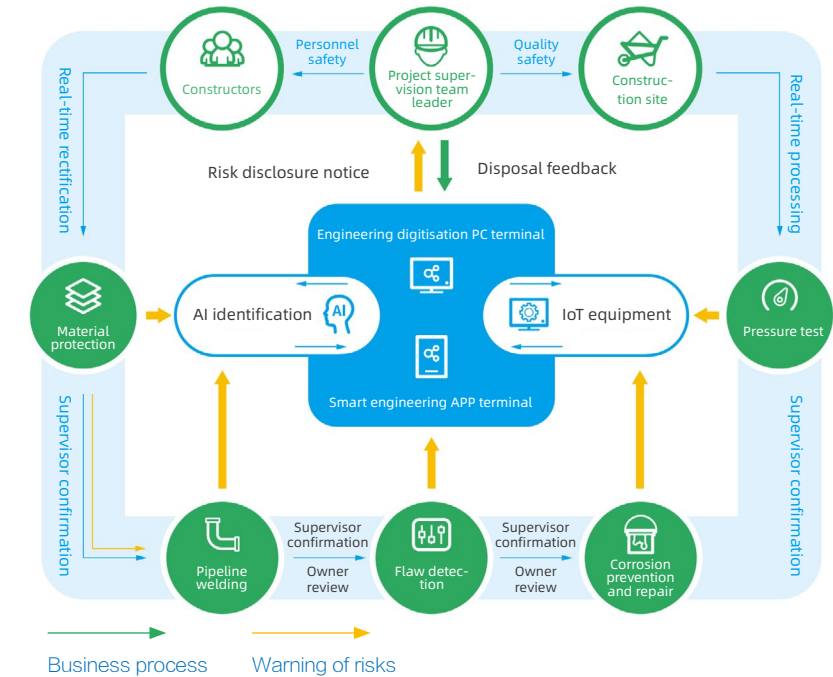


• Online Unmanned Intelligent Shipping System

Engineering Construction Business

Various prevention and control measures have been taken to ensure construction safety:

- Scenario safety standardisation**  
Operation safety standards for civil industrial and commercial households, municipal pipelines, photovoltaic, long-distance pipelines, gas storage stations and other scenarios have been developed and implemented.
- Intrinsic safety facilities construction**  
By analysing the safety facilities for hazardous operations such as temporary electricity use, climbing, and deep excavation, the intrinsic safety construction of temporary electricity facilities, climbing operation facilities, and foundation excavation support facilities, etc., has been carried out and improved to reduce the safety risk exposures to temporary electricity use, climbing, and excavation operations.
- Joint efforts in hidden hazard management**  
A safety management working group has been formed with the provincial gas company to collaborate on safety and quality, etc., improving the competitiveness of the entire region, and laying a solid foundation for building a safety brand and developing internal and external markets.
- Launching a digital empowerment engineering system**  
An all-round control over risk points during construction is conducted to proactively warn and disclose risks, and the safety management of engineers is improved to ensure engineering quality and safety. IoT equipment such as dome cameras, smart helmets, and smart eyes, and technologies such as live engineering broadcast and AI identification are applied to comprehensively monitor key construction processes, and provide real-time monitoring over hazardous work processes, realising visual control and data retention throughout the entire course of engineering scenarios.



• Digital Empowerment Engineering System



• Smart helmets facilitating safety inspection

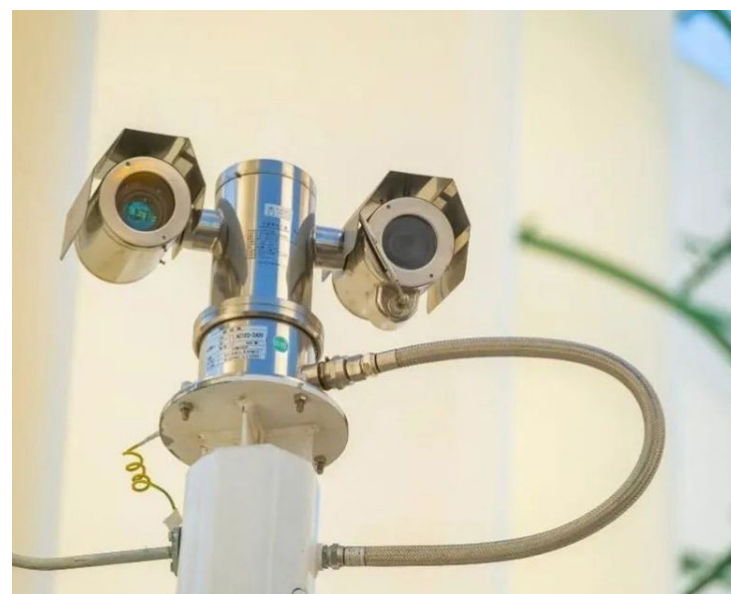


• "Dome Camera + Smart Helmet" for back-office supervision of engineering construction in real time



## Natural Gas Distribution Business

ENN Energy adheres to the realisation of full-scene supervision through the IoT ecosystem, and fulfil safety needs via intel-  
ligent interaction to promote the whole life-cycle safety management for stations and pipeline network.



• Laser PTZ Monitoring Equipment

As of the end of the reporting period:  
PTZ scanning laser combustible  
gas detector

147 sets

Installation of pressure monitoring  
device for pressure regulating equip-  
ment

25,543 sets

Combustible gas detection device for  
valve pit

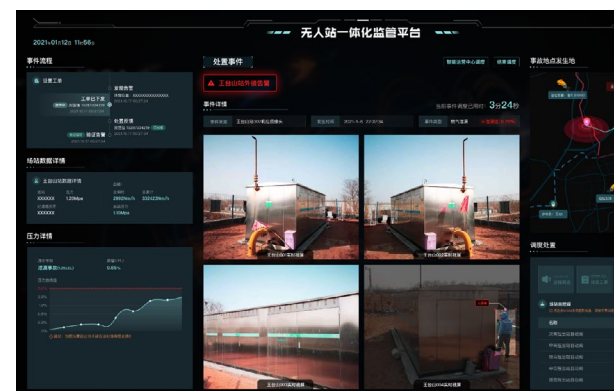
15,476 sets

## Station operation safety management

In response to the difficulties and pains in the transportation, storage, and conversion of LNG, the Company has innovative-  
ly developed and applied the “Unmanned Station Safety Guard” system to promote the construction of digital and intel-  
ligent safe stations. Digital and intelligent products such as laser PTZ, infrared thermal imaging PTZ, and electronic fence  
have been configured by us to achieve around-the-clock and 360-degree seamless monitoring, with which, we are able to  
timely detect small leaks and treat them in a closed-loop manner, helping to efficiently investigate and handle dangers.

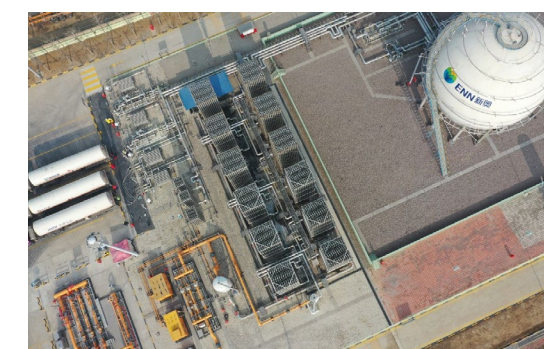


• “Unmanned Station Safety Guard” System



## The LNG Unloading Safety Supervision Solution was Selected as a National IoT Demonstration Project

ENN Energy has developed and applied a LNG unloading smart safety monitoring project, using Qingdao ENN as a pilot site to  
solve the management risks and pain points of personnel supervision, operation, gas-liquid leakage, etc. Through self-devel-  
oped AI technology and intelligent platform, it achieves functions such as full-process monitoring, real-time data transmission,  
intelligent analysis and emergency warning. On June 23rd 2022, “Innovative Application of LNG Unloading Supervision Based  
on AI Algorithm and Intelligent IoT” by Qingdao ENN was selected in the list of national demonstration projects for IoT in 2021  
by the Ministry of Industry and Information Technology (MIIT), winning the title of “Integrated Application Innovation”.

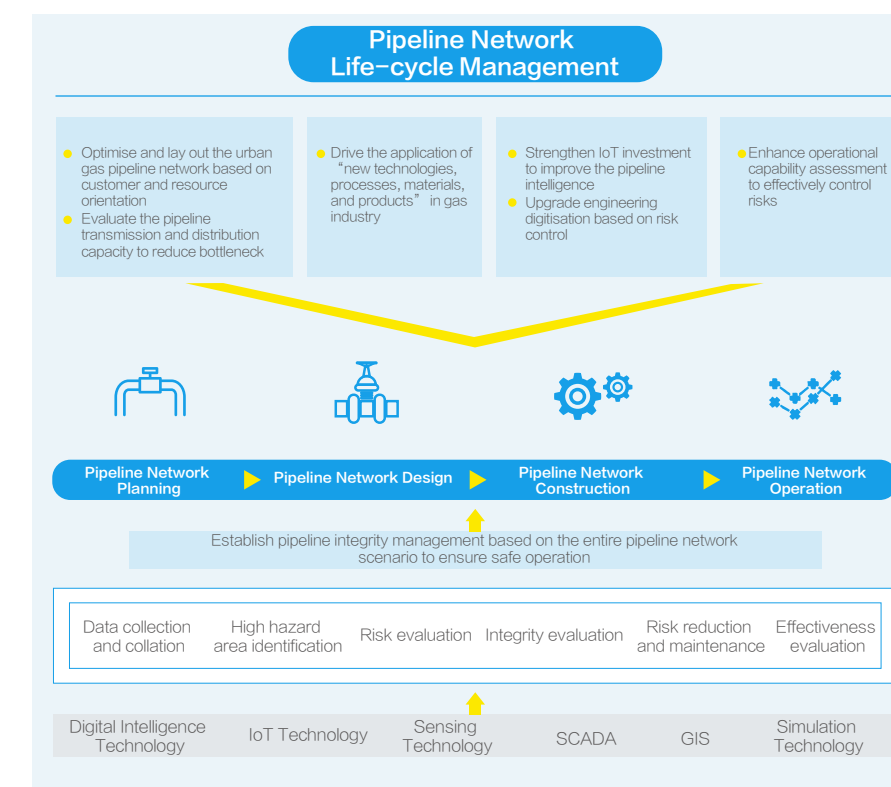


• Qingdao ENN Tuanjie Road Station Giving Effect to “LNG Unloading Safety Supervision Solution”

## Pipeline network operation safety management

In 2022, relying on the intelli-  
gent operation center, ENN En-  
ergy has managed to visualise  
the process of business scenar-  
ios, identify key operations, and  
maintain improving the pipe-  
line network operation site:

- Through measures such as patrol and zoning meas-  
urement, it has efficiently and quickly identified and  
repaired pipeline network  
damages, thereby reducing  
pipeline leakage;
- The application of high-pre-  
cision laser detector was  
reinforced by equipping UAV  
laser inspection, laser detec-  
tion vehicle inspection, PTZ  
scanning laser detection de-  
vice, valve pit leakage online  
monitoring device, etc. for  
different scenarios to improve  
the frequency and accuracy  
of leakage detection, timely  
identify potential leakage  
hazards, and make a quick  
response accordingly.



• Pipeline Network Life-cycle Management



Digital Intelligence Products for Urban Gas Pipeline Network Safety

In 2022, ENN Energy enabled intelligent gas inspection vehicles that could provide detection with a distance of up to 100 meters and a speed of up to 30 kilometers per hour, whereby to realize high-precision monitoring of potential leakage hazards and form visual inspection reports available for upload to the intelligent operation center in real time for timely alerting pipeline network gas leakage risks. Besides, intelligent cathodic protection data acquisition instruments were applied to collect pipeline cathodic protection data in real time to timely detect abnormalities and immediately conduct repairs, effectively preventing the “corrosion damage” to the pipeline network and avoiding pipeline safety accidents.



Intelligent Gas Patrol Vehicle for Urban Pipeline Network Safety

Integrated Energy Sales and Service Business

Based on digital and intelligent means such as IoT, AI identification, environmental detection, and remote risk disclosure, ENN Energy has worked to identify risks on key facilities, environmental safety, and personnel operation, thereby improving the safety risk management and control capabilities for cross-energy scenarios and achieving digital and intelligent energy intrinsic safety. In 2022, disclosure of risk exposures to six sectors i.e. gas leakage, abnormal high temperature, open flame, water flooding, excessive smoke, and personnel violation in integrated biquitous energy scenarios have been realised.

Zhuzhou ENN Promoting the Intelligent Construction of Integrated Energy Stations

By the introduction of IoT equipment such as zirconia analysers, remote power metrs, and gas leakage probes, Zhuzhou ENN has established a risk disclosure regulatory mechanism, witnessing 10 intelligent applications including smoke component analysis, power monitoring and gas leakage detection, thus comprehensively controlling the safety risks to integrated energy stations and ensuring the safe operation of equipment and facilities.



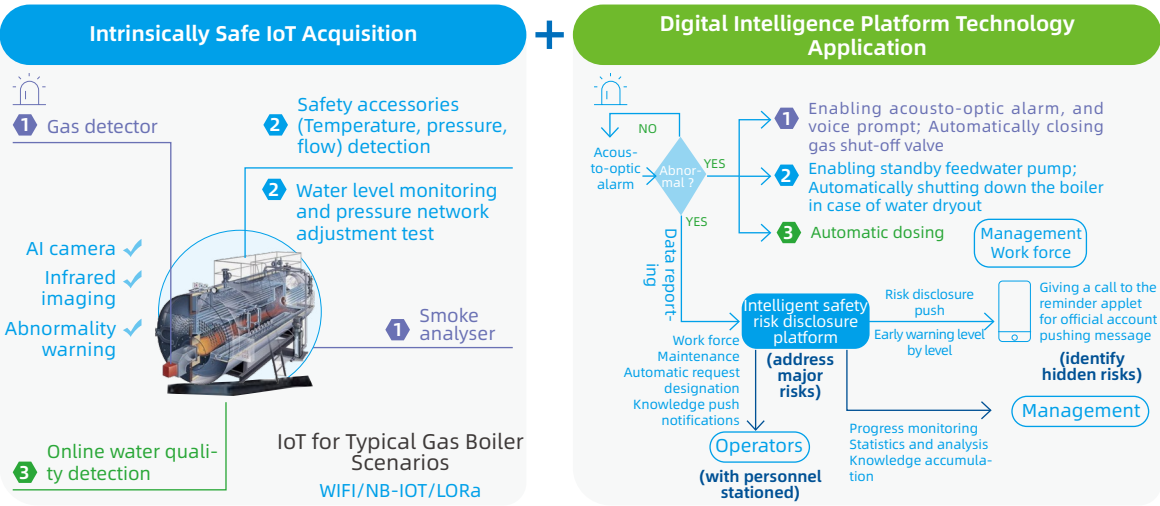
Smoke Component Detector



Hardness Tester

Create a Digital and Intelligent Solution for Gas Boiler Safety

ENN Energy has created a digital and intelligent solution for gas boiler safety based on “Intrinsically Safe IoT Acquisition + Digital Intelligence Platform Technology Application” in response to gas boiler safety scenarios. Under the solution, such functions as boiler body and accessories risk diagnosis, real-time analysis of operation status, timely control, and remote risk disclosure through IOT equipment and the Company’s integrated energy risk platform are made available, effectively ensuring the safety of gas boilers.



Digital and Intelligent Solution for Gas Boiler Safety

Safety Risks Investigation and Management

The Company has been active in carrying out graded risk management and control, as well as hidden hazard investigation and management, to ensure the overall operation safety. In 2022, we have revised our regulations such as the *Accident Report, Investigation and Handling Regulations*, the *Management Measures for On-site Supervision against “Three Kinds of Violations”* in Safety Regulations, and the *Regulations on Safety Risk Grading Control and Hidden Hazard Investigation and Management*, continuously promoting the construction of a dual prevention mechanism embodied by risk grading control, on one hand, and hidden hazard investigation and governance, on the other hand, and organising various enterprises to carry out self-inspection and self-correction.

13 inspection teams have been formed and 116 officers assigned to join the safety supervision action of “Field Investigation Without Notice and Report” on all member enterprises, from which a total of 1,390 safety hazards were found, with a rectification completion rate of 100%.

The “Looking Back” special operation was carried out on 41 enterprises to track their rectification, for which 65 officers were dispatched to complete research over 63 enterprises to ensure thorough rectification of detected safety management hazards.

All member enterprises were mobilised to carry out their own hidden hazard investigation, difficulty summary and special treatment actions.





## Ensure Occupational Health and Safety of Employees through Various Measures

In 2022, the Company revised its indoor work standards in all respects, and formulated and reviewed 18 work standards, including the *Indoor Gas Pipeline Replacement Work Standards*, to ensure construction safety and compliance.

We utilise digital intelligence tools and systems, promote the use of 4-in-1 detectors, intelligent IoT equipment, and intelligent dispatching systems. Additionally, we have adjusted existing operational procedures, testing methods, and workflows to ensure that our frontline employees master correct operational requirements and safeguard their occupational health and safety.



• "4-in-1" Indoor Intelligent Gas Detector

## Occupational Health and Safety of Contractors

ENN-NG places equal importance on the health and safety of its employees and contractors. We require contractors to sign the Production Safety Management Agreement to improve and implement contractor safety management, in a bid to maintain a healthy working atmosphere and safe operating environment for the Company and contractors.

We take Four Must Do's in safety management for all types of suppliers, contractors and LNG road and water carriers:

### Eligibility:

- Submit ISO45001, ISO9001 and other quality management systems, occupational health and safety system certification materials and relevant mandatory certificates during selection

### Pre-work education:

- Establish a pre-shift meeting management system for contractors to provide safety education prior to their work
- Establish 18 sets of form-based management systems for contractors to fully supervise their safety management

### Competency assessment:

- Assess the safety capabilities of contractors' work team and develop targeted capability enhancement programmes
- Establish a contractor honour system, evaluate outstanding contractors and award them certificates during overhauls

### Process supervision:

- Conduct assessment of daily safety points for contractors
- Establish a full-process management mechanism for high-risk operations at night and on holidays
- Carry out special safety management activities for special operations at work sites and the recurrence of violations

### In 2022

ENN-NG's contractors subject to physical examination **100%**

Fatalities **0**

Work-related accidents **3**  
minor injuries

Injury rate for contractors **0.15**  
per million man-hours

ENN-NG's carriers **26.3** million kilometres  
zero personal injury

## The "Red Line for Road Safety" Campaign in the full scenario of transportation capacity

### Carrier Safety Assessment

- Conducted safety assessment of carriers in terms of qualification compliance, safety systems, driver and escort safety, vehicle safety and journey safety
- Adopted dynamic and graded management of carriers, with different cycles of safety reassessment

### Management of Hazards in Unsafe Behaviours

- Formulated the *Measures for Supervision and Management of High-risk Violations by Carriers in the National Capacity Coordination Group* and included smoking, using electronic devices, speeding and blocking cameras in the monthly safety KPI performance assessment of carriers
- Jointly developed the National Vehicle Intelligent Monitoring Platform, a safety digital intelligence product, with Yuntuyun, to quickly and efficiently report speeding and high-risk driving behaviour of partner carriers' vehicles, so that timely management and penalties can be imposed

### Vehicle Safety Hazards

- Organised joint regional vehicle inspections by carriers and carried out random vehicle safety checks

### Enhanced Carriers' Safety Capacities

- Conducted special safety technology training
- Conducted special safety training for key positions with external partners
- Promoted workshop activities designed to enhance carriers' safety capacities

### In 2022

we conducted an assessment for LNG road carriers in China of

**100%**

safety risk and management assessment.

## Investigated and Managed Safety Hazards of Carriers

ENN-NG organized carriers to conduct 3 joint regional vehicle inspections in Zhoushan Zhenhai Service Area, Zhoushan Logistics Park and Jintang Car Park, and conduct 5 random vehicle safety inspections in Guangdong East Terminal Car Park, Zhoushan Logistics Park and Shijiazhuang Luquan Gas Storage Depot, during which more than 30 hidden vehicle safety hazards were identified and rectified.



## Emergency Response

ENN-NG optimized the emergency command and management system, clarified the hierarchical command and emergency coordination mechanism and information release mechanism, strictly implemented emergency preparedness work such as emergency plans, filing, emergency team building, emergency equipment and materials, etc., continuously improved the ability to prevent and deal with emergencies, and carried out relevant drills and training to improve the emergency management and disposal ability of personnel and comprehensively improve its emergency management capability.

### Management System: Clear Division of Responsibility and Response Procedures for Emergency Response

An emergency management system has been established with the general manager as the emergency commander, the business and empowerment organisations as the emergency action team and the production and operation dispatch centre as the emergency command, with a clear division of responsibility for emergency handling and emergency response procedures.

### Management System: Improve the Emergency Management System and Promote Standardized and Procedure-based Emergency Work

Each business unit has established an emergency duty system, an inspection system, a regular meeting system and other emergency management systems, and strictly enforced the information reporting system for emergencies.

The responsibilities of the emergency duty posts have been clarified, which is to further improve the emergency duty post responsibility system and duty system, strengthen supervision of duty work, implement 24-hour duty and ensure smooth communication.

We have improved the procedures for identification of major hazards and risk evaluation and control, established a list of hazards, formulated corresponding measures according to the risk level of the hazards, and implemented key monitoring of major hazards.

### Emergency Plan: Establish an Emergency Plan System

The emergency plan and on-site disposal plan were formulated to address the risk factors of the major risk sources in the production process, forming a comprehensive emergency planning system integrating emergency plans, special plans and on-site disposal plans, which have passed the examination of the local emergency management department.

According to the actual situation, the original emergency plan has been revised to continuously improve its reasonableness and operability, some plans have been added according to needs, and working procedures have been formulated to cover the whole process of emergency command, emergency response and emergency disposal, with clear responsibilities and division of labour, which promoted the standardisation, institutionalisation and proceduralisation of emergency work.

### Digital Intelligence Platform: Improve the Speed of Emergency Response

Through the application of digital intelligence products, we implement uninterrupted monitoring of key aspects to early detect hidden accidents and eliminate them in the nascent state.

## Xinneng Energy Hosted the Hazardous Chemical Fire Accident Drill

In June 2022, Xinneng Energy hosted an emergency drill for fire accidents in hazardous chemical manufacturers in cooperation with the Dalad Banner Fire and Rescue Brigade, which effectively tested the joint response mechanism between the Company and the fire brigade, our emergency response capability for fire accidents and the quality of our emergency rescue team.



• Xinneng Energy Hosted the Hazardous Chemical Fire Accident Drill

### In 2022

ENN-NG's all member  
companies conducted

4,961

emergency drills for fire prevention, chemical explosions, gas leaks, etc.

## Safety Emergency Response Exercise in Zhoushan

In 2022, before the arrival of the typhoons Hinnamnor and Muifa, ENN-NG fully deployed flood and typhoon prevention measures in Zhoushan, implemented emergency plans for flood and typhoon prevention and issued 152 lists of typhoon prevention work. The person in charge of each area checked the availability of typhoon prevention materials against the list of materials and tested emergency equipment in advance to ensure that production safety would not be affected.

During the typhoon's landfall, our leaders and key personnel were on duty 24 hours a day to keep an eye on the situation in all areas of the terminal, while the video monitoring system enabled "PTZ inspection" to monitor the safety status of production equipment and buildings and ensure the effectiveness of the emergency response work.

## Zhoushan ENN LNG Emergency Rescue Team Was Established

In active response to the *Notice of Zhoushan Production Safety Committee Office on the Establishment of Zhoushan Hazardous Chemical Emergency Rescue Team*, the Company applied to establish the "Zhoushan ENN LNG Emergency Rescue Team" and procured key rescue equipment such as pipeline inspection drones and 72m high jet fire engines to improve emergency rescue capabilities.



• Zhoushan ENN LNG Emergency Rescue Team Was Establish Ceremony

## Conducted Emergency Drill for Piped Gas Leakage to Enhance Emergency Response Capability

In 2022, Zhaoqing Gas collaborated with the local government to conduct a joint emergency rescue exercise for sudden gas pipeline leaks, covering emergency response, emergency rescue, emergency security and accident rescue and repair, and debuted new equipment - a remote detection robot in the rescue exercise, the company has demonstrated its professional level of intelligent and secure management to the society.



• Emergency Drill for Piped Gas Leakage



## Building a Safety Culture

ENN-NG continuously enhanced the safety capability of all employees and improved the quality of the safety team.

The Company provided special training for safety-related personnel through monthly trainings, “Safety Guard” special training and safety training programmes ( “An · Xin” and “An · Zhi” ), introduced production safety regulations and systems and disseminated safety knowledge on the use of electrical appliances and machinery and fire and explosion prevention, as well as emergency rescue and prevention of accidents, through workshops for enhancing safety management capacities and special technology seminars, and discussed practical cases, so as to enhance safety awareness and capacity and always keep production safety in mind.

At the same time, we also carried out online safety training such as “Knowing Intelligence Safety in Seconds” and “What We Should Know about Safety” to create a safety culture with all employees engaged in.



• ENN-NG Conducted an Open Safety Course for Key Personnel



• Xinneng Energy Conducted an Open Course on Safety Management for Contractors

## "An · Xin" Pioneer Camp Training

The Company held an “An·Xin” Pioneer Camp safety training activity. In order to build a QHSE (Quality, Health, Safety and Environment) backbone to support safety management under digital intelligence and diversified scenarios, 54 representatives from various business scenarios were selected to participate in the training. The training was designed to enhance the safety mindset of our safety backbone, fill in the gaps in their roles and consolidate their professional safety capabilities.



• “An·Xin” Pioneer Camp Training



## "An · Zhi" Talent Training

In 2022, ENN Energy conducted a 17-hour training to explain solutions and safety knowledge and skills to all current safety leaders of companies in the industry, those who wish to enter the future safety middle and senior echelon, and other safety-related personnel, with a total of 771 participants.



• "An·Zhi" Talent Training Venue

## Continued to Enhance Safety Capacities for Integrated Energy Projects

In 2022, ENN Energy conducted an open course on integrated energy delivery and operations for personnel working in integrated energy construction and delivery and operations management, with a focus on improving their safety capabilities and ensuring operational safety.

Also, to further enhance safety capabilities for integrated energy scenarios, we have formulated the *Implementation Plan for the Independent Growth of Integrated Energy Operators* and carried out internal pre-service certification. We completed the “admission assessment” for the seven business scenarios of integrated energy operators, organised “pre-service certification” as well as “theory + practice” training and examinations, and encouraged employees to enhance the capabilities of operators through external certification in 2022.

Number of participants

**3,840**

Pre-service training and examinations

**2,412persons**

Admission assessment

**1,114persons**

Certification rate for front-line personnel

**100%**



• Admission Assessment of Integrated Energy Safety and Professional Fundamentals



• Pre-service Training and Certification for Integrated Energy Operators



ENN-NG not only prioritizes its own safety culture but also places importance on the safety management capabilities of its business partners. For suppliers and contractors, the company provides training on in-plant safety instructions, in-plant hazards and prevention and control measures, as well as general emergency response knowledge, with the goal of establishing a safe and healthy working environment. Additionally, the company organised seven special training sessions on “Safety Guard” for national carriers, tailored to the safety hazards inherent in high-risk business scenarios. Safety experts from the Research Institute of the Ministry of Transport’s Highway Department conducted special training both online and offline for more than 40 carriers, with the intention of solidifying the safety management foundation of personnel in key positions and enhancing carrier safety management capabilities.

## ENN-NG Conducted Workshops to Enhance the Capabilities of Carriers' Safety Managers

In July, the Company organised the “2022 Seminar on Prevention of Spontaneous Combustion in Transport Vehicles” in Zhoushan, inviting vehicle technicians from core carriers in Zhoushan and Michelin tyre experts to provide professional support and case sharing for the seminar. A total of 78 people attended the seminar both offline and online, including managers of national carriers, drivers and representatives of Zhoushan ENN Logistics.

In August, the Company organised the first Workshop to Enhance Safety Capacity of Carriers in South China at Zhuhai Jinwan Terminal and invited some manag-

ers of CNOOC Jinwan Terminal to participate in the discussion, so as to raise safety management awareness of carriers in South China and address their weak links in safety management.

In September, the Company organised a special training on Occupational Health of Drivers and Escorts & LNG Leakage in Zhoushan, with the Director of Neurology at Aidebao and the Safety Head of QHSE Group at Zhoushan ENN Terminal as instructors. A total of 67 participants from 34 logistics fleets across the country participated the training offline and on-line.



- South China Carrier Safety Capacity Enhancement Workshop Held at Zhuhai Jinwan Terminal



- Capacity Enhancement Training and Special Technical Seminar for Safety Managers of Carriers in Zhoushan

## Safe Gas Supply with Guaranteed Quality

Relying on the digital intelligence safety management system, ENN-NG attaches great importance to the safety and health of its customers and endeavors to satisfy the needs of its customers for a safe and quality life while meeting its own safety requirements.

### Customer Safety Management

The Company managed hidden safety hazards of customers, developed digital intelligence safety products for customer service scenarios and promoted the construction of customer safety culture, so as to guard the safety of people’s livelihoods.

### Customer-specific Hidden Hazards Management

For residential users, we have comprehensively investigated and rectified the risks and major hidden hazards in households in strict accordance with the requirements of the safety management code. We have built a model for measuring the risks in households from two dimensions: the likelihood of failure of safety facilities and the consequences of such failure, and optimised and adjusted our safety inspection strategy.

For commercial and industrial users, we have implemented the “100-day Action” to improve the city-gas safety and rectified potential safety hazards for commercial and industrial users, so as to ensure their safety in using gas.

#### In 2022

The Company’s comprehensive safety inspection rate and correction rate for Class I air leak hazards reached

**100%**

The Company organised all regions to inspect hidden hazards of all industrial and commercial users

Leak alarm cut-off devices retrofitted or rectified

**30,652**

Other hidden hazards rectified

**10,619**

Hidden dangers in stove flame failure protection devices rectified

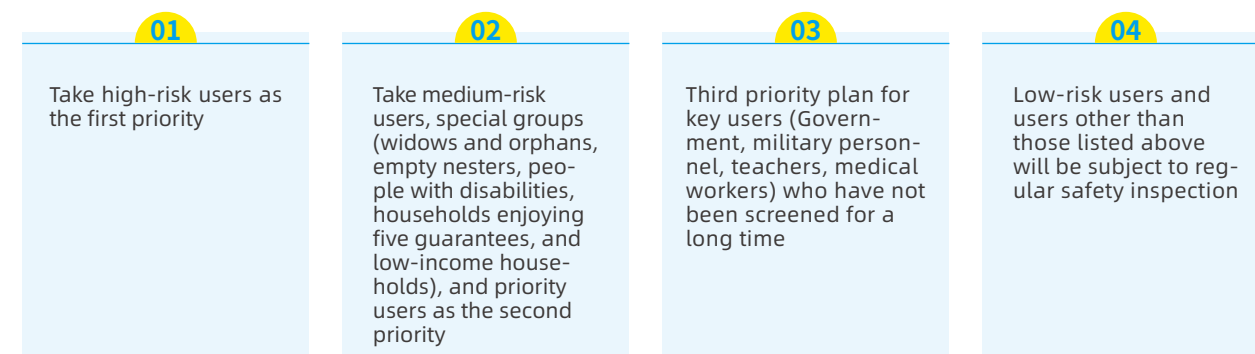
**5,980**





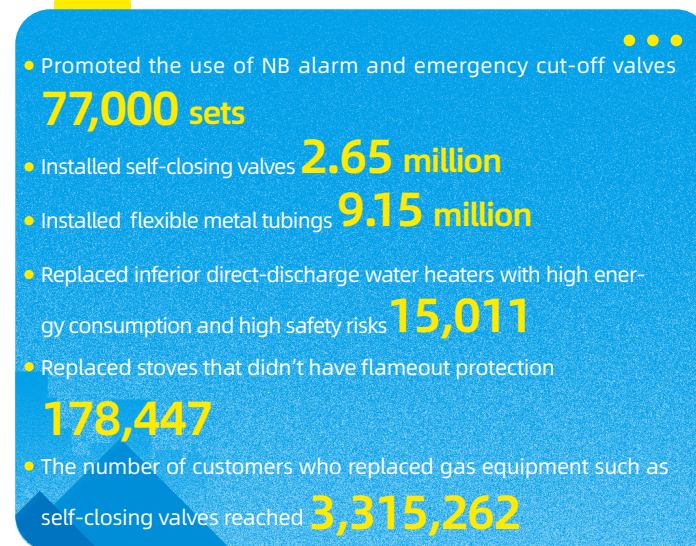
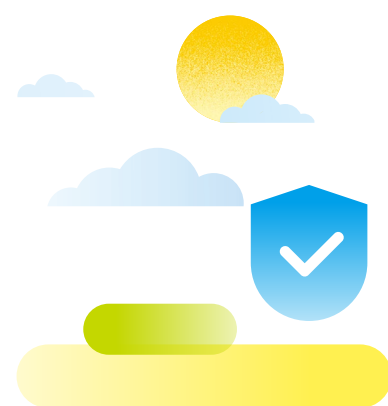
## Indoor Digital Intelligence Safety Products

The Company has developed digital intelligence safety products such as indoor risk maps by establishing risk degree algorithm models, which can accurately realise such functions as indoor risk forecasting, early warning, pre-control, prevention and intelligent emergency disposal. By measuring customer risks through digital intelligence tools, we clarified the prioritisation strategy of security inspection and carried out risk indication at government, enterprise, district and community through indoor safety risk map tools to ensure the safety and health of customers.



• Indoor Safety Inspection Prioritisation Strategy

The company is resolute in empowering its customers with digital intelligence, promoting IoT products such as self-closing valves, flexible metal tubings, gas-burning appliances with flameout protection, and digital intelligence safety application technologies. It has implemented a variety of emergency connectivity functions, including leakage alarm, intelligent window alarm linkage, exhaust fan linkage, SOS intelligent alarm linkage, and remote alarm. As soon as an accident occurs, it is notified on the intelligent IoT platform, which then provides alert services to customers via SMS, voice message, external calls, mini-program push, etc., and instantly dispatches emergency personnel.



• Indoor Risk Map for Real-Time Safety Status

## Promoting a Safety Culture

The company places a high value on educating customers about gas safety and continues to conduct safety culture promotion activities aimed at enhancing customers' safety awareness. In 2022, we used various channels, including WeChat, video accounts, and enterprise WeChat, to promote gas usage knowledge among customers. We achieved this by releasing gas safety videos and introducing gas-saving tips, with the objective of raising customers' safety awareness when using gas.



• "On Safety" Official Account

• "Tighten Gas Safety Valve, Build a Safety Firewall" Campaign

## ENN Energy Promoted Safety Knowledge at Seven Premises

In 2022, ENN Energy promoted safety knowledge at seven premises, such as enterprises, schools, institutions, communities, rural areas, homes and public premises, with its all branches conducting training, on-site publicity, drills, display boards and other forms of publicity at the frontline, so as to increase awareness of gas safety in local communities.



• The Event Site of Safety Promotion Campaign

During the year, we held

a total of  
**2,252**  
events to promote safety  
knowledge

**145**  
safety training sessions

**1,800**  
on-site promotions

**122**  
drills

**96**  
safety awareness panels

**89**  
publicity in other forms

Safe and Stable Gas Supply

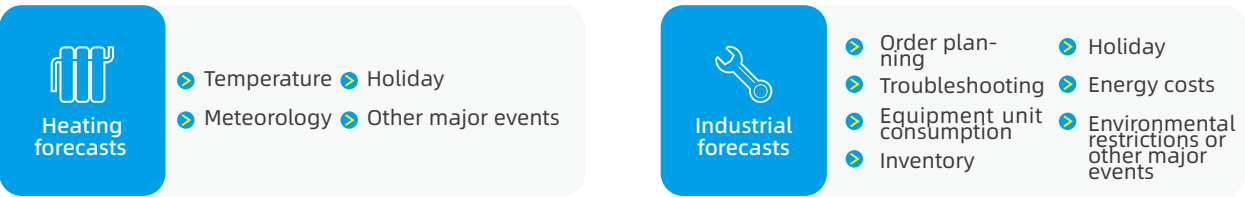
As the supply of natural gas plays a critical role in people's well-being and social development, ENN-NG has made stable gas supply a top priority in fulfilling its social responsibility. The company has optimised its gas procurement structure by integrating digital intelligence technology, strengthening its ability to forecast customer demand, and coordinating the deployment of gas resources across the board to meet the needs of both residential and commercial and industrial customers. By doing so, ENN-NG provides a safe and reliable energy source, which is essential for social and economic development.

The company continues to enhance its resource coordination and scheduling capabilities, having established a forecasting, matching, monitoring and full-scenario delivery operation mechanism to dynamically track contract execution and demand and supply gaps. ENN-NG has created a natural gas resource pool and optimized its flow through operational differences between companies. By taking advantage of national infrastructure development, the company has acquired capacity and resources such as coastal terminals and underground gas storage. Furthermore, we have endeavoured to create value by using trade tools and developing terminal anti-peak customers to regulate peak demand.

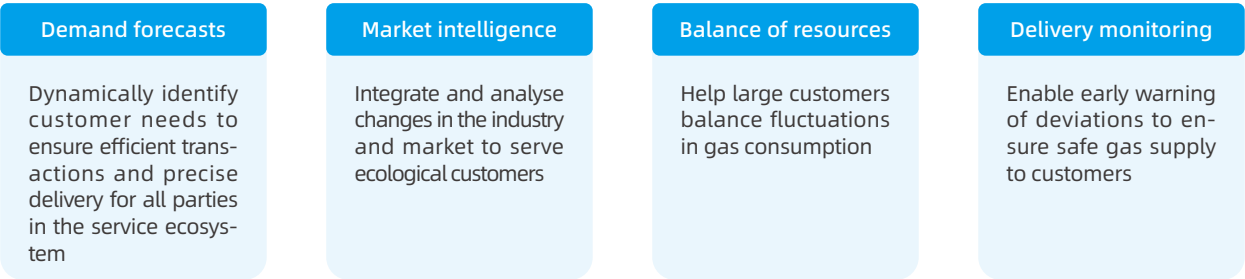


Measures for Integrated Management of Gas Resources

By analysing the energy demand of various customers, we improved our customer portraits based on their characteristics, industry attributes and other features, deeply explored their demand for gas supply and implemented customer grading management. At the same time, we continued to improve our demand forecasting models and iteratively upgraded our gas supply management platform in line with changes in upstream policies to reasonably match demand and supply.

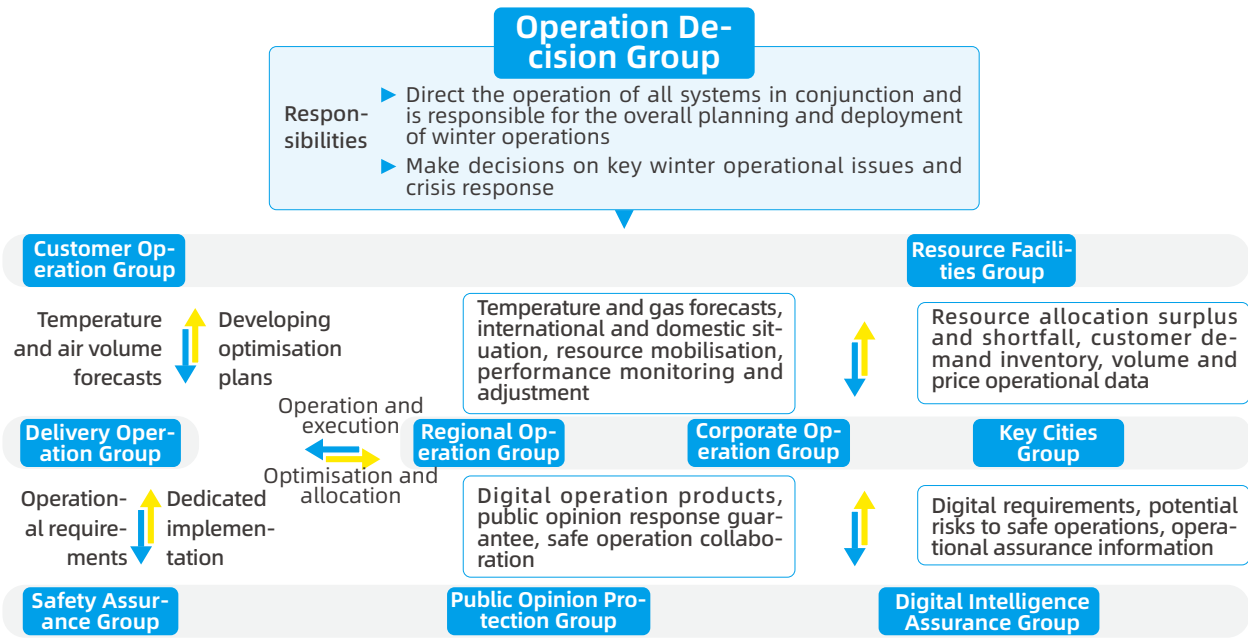


Reference Factors in Demand Forecast Models (Partial)



Measures to Enhance Supply Assurance Capability in a Digital Intelligence Manner

In the face of gas supply pressures and challenges during winter, ENN Energy is committed to enhancing its regular winter supply assurance system and organisational management. In 2022, we optimised our winter operation security measures by extending gas supply security efforts from the headquarters to the regional companies. We carried out resource security, digital intelligence, safety, and public opinion management comprehensively, providing a solid foundation for smooth winter operations and gas supply. At both the headquarters and regional levels, we have established two levels of emergency plans for winter supply assurance. We issued a Notice on Strengthening the Safe and Stable Operation of Gas Infrastructure in Winter, formulated emergency plans, and conducted emergency drills. Furthermore, we continue to improve our emergency response capabilities to address unexpected situations at plants and stations, and to manage third-party pipeline damage.



Organizational Structure for Winter Operations

Enhance Customer Services

We have strengthened the overall quality of our customer service team to deliver professional and high-quality services to our customers. We have optimised our customer complaint handling mechanism and implemented the "customer satisfaction" management principle. This principle requires the complaint investigation process to follow the requirements of objectivity and truthfulness, as well as closed-loop supervision of the processing time, processing process, and processing rules. In addition, we have implemented a policy of 100% return visits to all complaint cases and collection of final customer comments, with the aim of improving the overall customer experience. To achieve this goal, we have optimised the Voice of the Customer 2.0 system. This system tracks all time points and processes of complaint handling, and we review the results of complaint investigations through a system + manual approach to ensure timely issue resolution.

In 2022, we also engaged a third-party professional consultancy to conduct a full-scenario customer satisfaction survey for residential users as well as industrial and commercial users, and to analyse the weaknesses based on the survey results and then optimise the quality of subsequent services and products. The survey was conducted through a combination of telephone and online assessments, covering 71 business entities owned by ENN Energy, with a total sample size of 15,688.

Customer satisfaction	Number of customer complaints	Customer complaint rate	Prompt complaint handling rate	Complaint resolution rate	Satisfaction rate for complaint handling
95%	374	0.19‰	91%	100%	94.6%



# 03

## Drive low-carbon Development for a Cleaner Environment

### Important ESG issues addressed in this Section

- Waste management
- Water resources management
- Energy conservation and circular economy
- Biodiversity conservation
- Climate change and carbon emission reduction
- Renewable energy and clean energy

### Sustainable Development Goals (SDGs) Addressed in This Section



### HKEX ESG Indicators Involved in This Section

- A1 Emissions
- A2 Use of Resources
- A3 Environment and Natural Resources
- A4 Climate Change

With the green development philosophy in mind, ENN-NG has been fully responsive to the carbon peaking and carbon neutrality goals and energy transformation strategy, continuously improved its environmental management capability and resource use efficiency, maintained biodiversity conservation and local ecology, and constantly strengthened the sense of responsibility for environmental management. Meanwhile, the Company focused on the climate change issues, performed full identification, assessment and management of various climate change risks, and fully explored the solutions for low-carbon energy and clean energy in combination with the business scope of ENN-NG so as to make contribution to the harmonious development of energy, economy, society and environment.

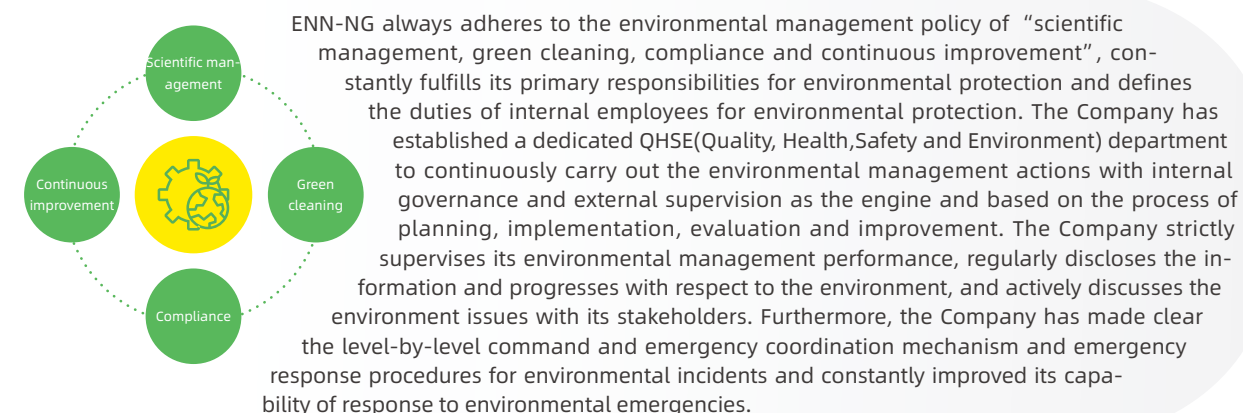




# Environmental Protection and Green Operation

ENN-NG strictly complies with the national laws and regulations and continuously improves its whole-process environmental management system. Meanwhile, the Company actively advocates Green Office Program and employs digital-intelligent means for environmental monitoring and energy consumption management so as to minimize the consumption of environmental resources and energy and implement the concept of sustainable operation.

## Environmental Management System



## Environmental Management Structure

### Board of Directors

Responsible for the matters related to environmental management of the Company

### Safety Production Committee

To implement the state laws and regulations on environmental protection

To organize and formulate the environmental protection development strategies, rules, regulations and work plans of the Company

### QHSE Department

Responsible for supervision and evaluation of the environmental protection performance of companies in various industries

To examine and approve the construction plans and implementation schemes for key environmental protection and governance projects

To coordinate major issues on environmental protection for ENN-NG and companies in various industries

To regularly report progresses to the Protection Safety Management Committee and adjust strategies

### Other Departments and Subsidiaries Concerned

To establish the organization’s management systems, standards, planning and annual work plans for environmental protection

To refine the measures and prevention and control responsibilities for environmental management, and carry out environmental statistics, training and publicity of the organization

To formulate the organization’s emergency plans and on-site disposal plans for environmental pollution and ecological damage, and organize training and drills

### As of the end of the Reporting Period

ENN-NG and subsidiaries

**66** entities

has been certified for the ISO 14001 Environmental Management System, covering

**35** % entities

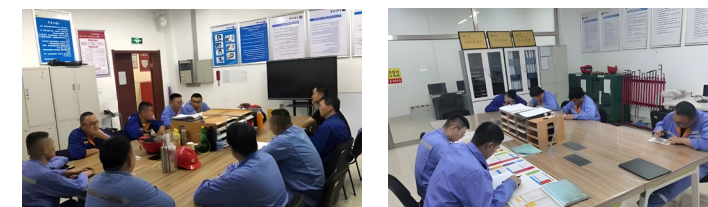
**Zero event**

has occurred in the Company resulting in lawsuits or punishments due to the violations on environmental issues

In order to achieve effective environmental management, ENN-NG has continuously promoted the employee training in respect of environmental management and environmental awareness. The Company implements differentiated environmental management training depending on the business responsibilities of different positions so as to fully enhance the capability and quality of workforce.

## Annual Environmental Protection Training by Xinneng Energy

In April 2022, Xinneng Energy conducted its annual environmental protection training. The training involved safety management systems for radioactive sources, duties and responsibilities for radiation positions, the Law on the Prevention and Control of Environment Pollution Caused by Solid Wastes, the National Catalogue of Hazardous Wastes, etc. with 144 participants, effectively enhancing the environmental protection management team’s understanding of laws and regulations.



• Environmental Protection Training Site

## Energy Consumption Management

Energy consumption management is an important part of the Green Action of ENN-NG. We have observed the Energy Conservation Law of the People’s Republic of China and other laws and regulations, and procured all subsidiaries to formulate their respective regulations on energy conservation and consumption reduction, and carried out refined management on energy consumption by means of digital intelligence so as to continuously improve energy use efficiency.


### ENN-NG Energy Consumption Status in 2022

Total natural gas consumption	10,000 standard cubic meters	1,842.13
Total gasoline consumption	10,000 liters	783.56
Total diesel consumption	10,000 liters	591.72
Total coal consumption	10,000 tons	89.89
Total electricity consumption	10,000 kWh	88,756.10
Total comprehensive energy consumption	10,000 tons of standard coal	242.87



# Energy Consumption Targets

In 2022, ENN-NG has set the energy consumption reduction target based on the actual situation of each subsidiary:

Dimension	Target		
<div> Direct sale of natural gas</div>	We aim to gradually increase our usage of green power at Zhoushan Terminal, with a target of consuming no less than 268,000 kWh of renewable electricity by 2023.		
<div> Energy production</div>	Energy consumption per unit product to reduce by	Energy consumption per unit product to reduce by	Energy consumption per unit product to reduce by
	1.3 % at Xinneng Energy in 2023	3 % at Xinneng Mining in 2023	0.2 % at ENN Qinshui in 2023
<div> Integrated energy</div>	Overall energy consumption of energy production facilities to reduce by		
	5 % by 2030		
<div> Low-carbon trade and transportation</div>	Unit energy consumption of self-owned transportation vehicles to reduce by		
	0.2 % in 2023		
<div> Green office</div>	Energy consumption per unit area of office buildings to reduce by		
	10 % by 2025		

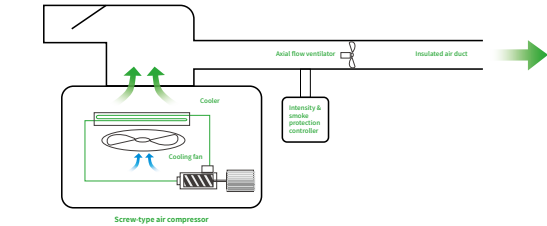




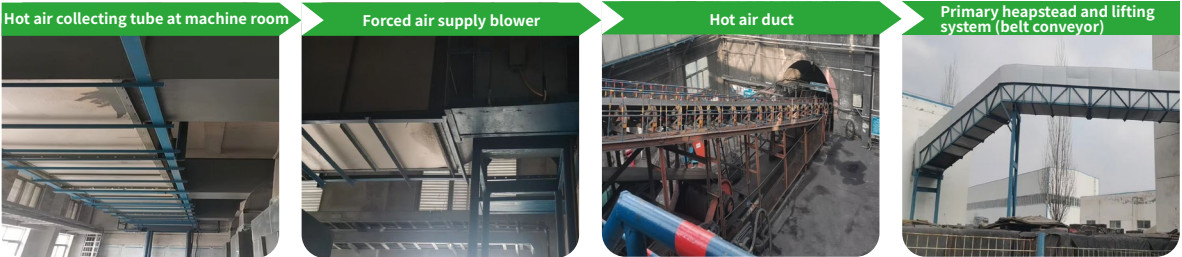
In 2022, ENN-NG vigorously promoted the revamp of highly energy-intensive equipment by applying various types of heat energy collection equipment and further explored ways of energy conservation by fully tapping and utilizing waste heat resources.

## Air Compressor Waste Heat Utilization Project at Xinneng Mining

- Renovation of cooling air flow system for air compressor: The air compressor waste heat is introduced in-doors to provide suitable temperature for the operation of equipment in winter the appropriate temperature, not only shortening the equipment maintenance cycle, but also creating a good operating environment for maintenance personnel and reducing the safety hazards.
- Renovation of air compressor cooling system: The waste heat is utilized to supply hot bath water for 1,200 people in the whole mine, replacing traditional coal-fired boilers and significantly reducing the use of coal and carbon emissions.



Process Flow Diagram for Renovation of Cooling Airflow System for Air Compressor



Facilities Added after Renovation

## Nitrogen Compressor Waste Heat Collection Renovation Project at ENN Qinshui

In 2022, ENN Qinshui completed the nitrogen compressor waste heat collection renovation project which transferred heat from the outlet of three-stage compressor to the heating system and thus achieved waste heat collection. During the heating supply in winter, the equipment can be used as a backup heat source to supply heat for the heating system and conserve heat, thus saving nearly 420 cubic meters of natural gas per day and reducing about 300 tons of carbon emissions per year.



Shell-and-tube Air-to-water Heat Exchanger Added after Renovation



## Use of Clean Energy

All business organizations at ENN-NG, based on their resource endowments, actively explore the feasibility of photovoltaic and cold energy power generation and strive to maximize the utilization of solar resources from the roofs, sheds, available ground and other areas within the plants and cold energy resources at the terminals.

In 2022, we implemented self-owned building PV projects at several locations with a total installed capacity of

The coverage of distributed PV generation system in our office operation areas

In 2022, the total use of renewable energy is

**4.25** MW **Over 50 %** **5.31** million kWh

### Integrated Energy Business

By 2030, the proportion of energy occupied by renewable and zero-carbon energy will rise to

**36 %**

## PV Projects Put into Operation in 2022

- PV sheds at Zhoushan Terminal with designed annual energy output of 536,000 kWh, annually reducing about 424 tons of CO<sub>2</sub>e of carbon emissions
- PV sheds at ENN Qinshui with designed annual energy output of 126,000 kWh, annually reducing about 110 tons of CO<sub>2</sub>e of carbon emissions
- Distributed PV generation system at ENN Lianyungang with designed annual energy output of 330,000 kWh, annually reducing about 260 tons of CO<sub>2</sub>e of carbon emissions
- Distributed PV generation system at 3# Energy Station of ENN Yuhang with designed annual energy output of 190,000 kWh, annually reducing about 150 tons of CO<sub>2</sub>e of carbon emissions



• PV Sheds at Zhoushan Terminal



• PV Sheds at ENN Qinshui



• Distributed PV Generation System at ENN Lianyungang



• Distributed PV Generation System at ENN Yuhang

## Commissioning of LNG Gasification and Cold Energy Dual-loop Power Generation System at Zhoushan Terminal has Commenced

The integrated utilization system of LNG gasification and cold energy at Zhoushan Terminal is independently researched, developed and manufactured by ENN with its own intellectual property rights. It is the first LNG gasification and cold energy dual-loop power generation system in China. After the system is put into operation, it can gasify 100 tons of LNG per hour, annually generate about 23 million kWh of green electricity and achieve about 18,000 tons of CO<sub>2</sub>e of annual carbon emission reduction.

Upon the project is completed and put into operation, Zhoushan Terminal will initially establish a multi-energy system featuring “cold energy power generation + solar power generation + wind power + energy storage + differential pressure power generation” on the production side to significantly reduce the usage of grey electricity within the plants, maximize the utilization of local renewable energy on the energy consumption side, and promote the local consumption of green electricity.



• LNG gasification and cold energy dual-loop power generation system

## Green and Low-carbon Office

In 2022, guided by the *Green Action 2030 - ENN-NG Journey to Net Zero*, in active response to the Double Carbon strategy and in order to implement the philosophy of green development, energy conservation and carbon emissions reduction, the Company developed the *Guiding Opinions on Efforts for Low-carbon and Green Office* which required all subsidiaries to have an in-depth study of knowledge on carbon emission reduction, tap the potential of low-carbon and green office based on their actual situation of production and operation, and jointly build a low-carbon and energy-saving green office ecology so as to support the completion of strategic objectives of the Green Action.

### Administration of Energy Conservation in Office Buildings

- Existing lamps are replaced continuously with energy-saving LED lamps
- Priority is given to the use of Class 1 energy-efficiency air conditioners for improved insulation performance of buildings subject to the air conditioning temperature control standards.
- Smart sockets, time-control switches and other devices are installed to reduce energy consumption and promote intelligent control of energy use.
- The office building energy system in self-owned parks is prioritized to improve the energy utilization efficiency.
- More distributed PV generation systems are arranged for roofs, parking sheds, etc.

### Promoting low-carbon travel

- Priority is given to new energy and clean energy vehicles during purchase of non-production vehicles.
- Sharing bicycles are encouraged for park commuting to reduce the use of motor vehicles.
- Public transportation, car pooling, cycling, walking and other means are encouraged for commuting.
- Going upstairs and downstairs by steps is advocated, the use of elevators for movement is minimized within three floors, and number of working elevators is reduced during off-peak hours.

### Creating a green operation model

- priority is given to environment-friendly and energy-saving materials.
- The use of green office supplies is encouraged such as recycled paper, degradable garbage bags and recyclable item.
- Paperless office, online conferencing and other electronic office methods are comprehensively promoted to simplify the internal conference configuration.

### Advocating healthy and low-carbon life

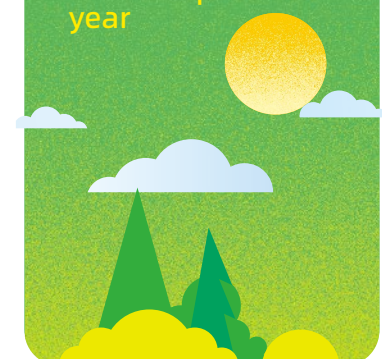
- The reduced use of disposable items is advocated such as mineral water, plastic bags, chopsticks, paper cups, paper towels and batteries to develop the green, recycled and low-carbon behavior habits.
- The principles of necessity and frugality are followed for means and “Clear your plate” campaign is rolled out.
- Garbage classification is promoted to facilitate waste reduction and resource recycling.

As at the end of the Reporting Period

The electricity consumption per unit area of the self-owned office buildings has decreased by

**9.51 %**

from the previous year





## Energy-saving transformation and energy efficiency improvement

Based on its own experience in clean energy and energy efficiency management, the Company applies digital-intelligent technology to reduce office energy consumption.

### Achieve the following goals by 2025

the PV power generated  
at self-owned office  
buildings will account for  
of power consumption

5 %

The energy manage-  
ment system installed at  
>10,000m<sup>2</sup> self-owned  
office buildings covering

100 %

can reduce the energy con-  
sumption by

10 %

Energy consumption can be  
reduced by

5 %

at < 10,000m<sup>2</sup> leased office  
buildings through energy  
use management



## Low-carbon Renovation for Langfang Headquarters Building

ENN Energy has made continuous efforts to promote energy conservation and consumption reduction for many years to mitigate the impact of its operations on the environment. In 2022, we comprehensively improved the use efficiency of resources and energy at the headquarters building through such energy saving and consumption reducing measures as application of energy management system for equipment energy-saving optimization and photovoltaic modules retrofit.

### • Energy use management system

The energy management system has been continuously promoted in the self-owned office buildings to reduce energy consumption from the electricity demand side.

### • Equipment energy-saving optimization

ENN Energy evaluates the energy consumption level at the headquarters office building on a regular basis and carries out energy-saving transformation for those sections with room for improvement:

(1) The water heaters are installed with time controller to reduce electricity consumption when it is idle, saving 50% energy compared with energy consumption before installation.

(2) The direct-fired units are installed with VFD cabinet to dynamically match actual demand and thus reduce energy consumption.

(3) Main air conditioning ducts are installed with remote heat meter to make accurate adjustment based on air temperature and thus reduce energy consumption during heat supply.

### • PV modules retrofit

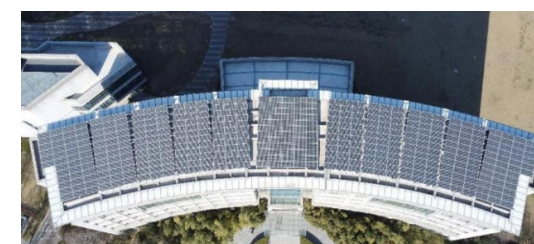
In 2022, ENN Energy carried out large-scale renovation for its headquarters building roof to significantly increase the overall installed capacity. Compared with that before retrofit, the gross power generation of the existing units increased by more than 20 times. As at the end of the Reporting Period, a total of 242,000 kWh of power was generated and it was expected to reduce about 658.65 tons of CO<sub>2</sub>e of direct carbon emission throughout the year.



• Real-time water heater monitor (left) and remote heat meter (right)



• VFD cabinet



• PV equipment retrofit for Langfang headquarters building

## Multiple Measures Taken by Xinneng Energy to Promote Green and Low-carbon Office

In 2022, ENN Energy took several measures to reduce electricity consumption at office scenes, saving 11.09 million kWh of electricity throughout the year:

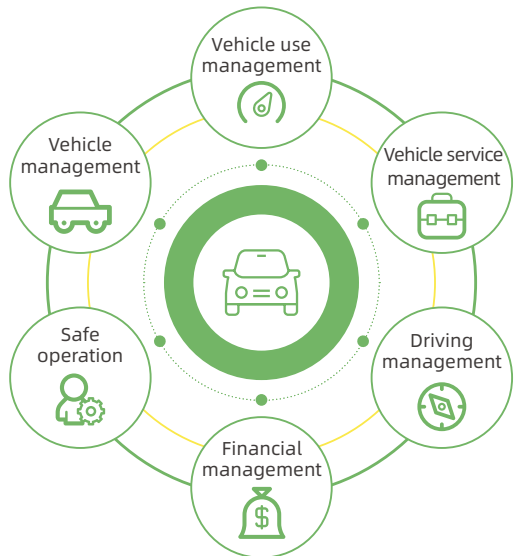
- The rules on safety management of non-production electricity were implemented to optimize the allocation and regulation of electricity for production and office.
- The lamp on/off duration and quantity of lamps used are specified and unauthorized connection of wires or power strips is prohibited.
- Intelligent induction LED lamps are installed for street lighting and process inspection access so that the lamps will be on when people come and off when people leave.



Low-carbon transport and smart travel

The Company plans to gradually replace non-production vehicles with new energy vehicles to reduce energy consumption and carbon emissions. In addition, the Company relies on digital-intelligent technology to develop vehicle-mounted smart connection product, thus significantly improving the operating efficiency of vehicles and support the smart and low-carbon transportation.

- Vehicle-mounted smart connection platform



Nearly **30 kg**  
of paper used for trucking orders  
can be saved



Enabling digital intelligence to achieve efficient office

ENN-NG is committed to the promotion of digital office, lowering the demand for paper and reducing the use of printers, paper, toner cartridge and other resources by electronic files, online meetings and other paperless office means.

- Electronic seal service is promoted and improved to avoid paper-based examination by document circulation.
- Highly energy-consuming scanning equipment is replaced with HD low-energy digital equipment.
- The subsidiaries are required to realize electronic filing of internal documents and meeting minutes.

(4)Electronic signature by clients



Electronic seal service

In 2022  
the number of toner cartridges procured by the  
headquarters reduced by more than

**28 %** compared with that in 2021

(5)Electronic agreement produced



Popular support for low-carbon culture

The Company has continuously strengthened the staff's awareness of energy conservation and environment protection and rolled out a low-carbon and green office campaign. All subsidiaries are required to organize various activities with low-carbon and energy-saving themes so as to promote the staff to develop a low-carbon working and living habit.



Cover of "Green and Low-carbon Initiative" Promotion Video



Green and Low-carbon Initiative Poster

Coverage of environmental  
labels in office spaces

**> 90 %**



New version for 2022 Green and Low-carbon Initiative Labels

In order to enhance the staff's awareness of food conservation, the Company has released a "Notice on Civilized Dining" and set the target of the annual kitchen garbage reduction by 20% per capita.

At the end of the Reporting Period  
wastes have been reduced by

**25 %**



## ENN Energy Engages in Low-carbon and Energy-saving Technology Exchange

In June 2022, ENN Liaoning participated in the Shenyang City Energy Conservation Week event, sharing energy-saving knowledge and enhancing the cohesion and fit between ENN Energy and Shenyang City in the low-carbon energy-saving field. Together, they promote low-carbon energy conservation and green environmental protection to help facilitate society's green development.



• Energy Conservation Publicity Week Opening Ceremony

## Water Resources Management

ENN-NG attaches great importance to the water resources management, abides by the relevant national regulations on water resources management, and establishes a systematic mechanism for management of water resources. The ENN-NG Board of Directors is the highest responsible body for the Company's water resources management. The Company formulates a water resources management system and explicitly requires each business unit to apply for the water intake permit to ensure water use in compliance with laws and regulations. Furthermore, ENN-NG makes an overall planning for the use of water resources, and strengthens the conservation, protection and scientific utilization of water resources. As of the end of the Reporting Period, the Company has not committed any violations relating to the use of water resources.

**We are expressly committed to maximally recycling water resources in the Company's Health, Safety and Environment (HSE) Policy to improve the water resource utilization efficiency.**

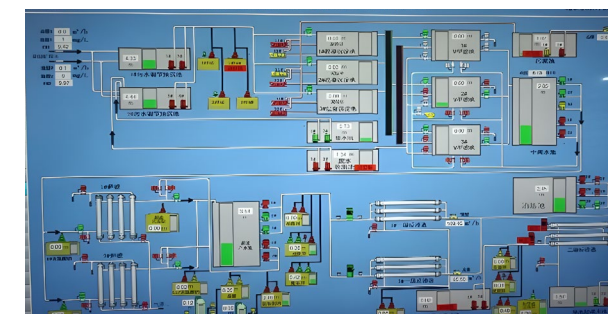
In order to better mitigate the water resources risk faced by the company, ENN-NG takes the following measures mainly for its subsidiaries located in the areas with extremely high water risks:

- A smart water system is applied for automatic reading of water intake data used to analyze the use of water resources by the Company.
- Rainwater recovery and reclaimed water equipment is applied to supplement water supply by collecting and treating rainwater and production water suppl.
- The water supply and water consumption equipment are regularly inspected and maintained to reduce waste of water resources due to leakage.
- Green spaces are increased in peripheral areas to exert vegetation transpiration effect, adjust regional precipitation and improve the resilience of water resources at the location of operation.

Indicator		Unit	2022
Use of water resources	Total water consumption	10,000 tons	1,308.18
	Water consumption density	10,000 tons/RMB 1 billion of revenue	8.49

## Xinneng Mining Implemented the Project for Comprehensive Utilization of Water Resources

In 2022, Xinneng Mining implemented the Project for Comprehensive Utilization of Water Resources to further optimize the water resources use efficiency. A mine water treatment station with treatment capacity of 10,000 m<sup>3</sup>/d, pre-treatment capacity of 13,000 m<sup>3</sup>/d and daily advanced treatment capacity of 10,000 m<sup>3</sup> was completed. It was also equipped with domestic sewage treatment system, mine water treatment system, water recycling facilities and mine drainage system, realizing 100% cyclic utilization of mine wastewater.



• Water Treatment Process Flow Diagram of the Project for Comprehensive Utilization of Water Resources

## ENN Linping Water Recycling Project

Two 135t/h reverse osmosis systems are installed in the water treatment workshop at Hangzhou Linping ENN Energy Development Co., Ltd., allowing the company to produce 15 percent recycled water. Using an autonomous hydraulic level control system, we transport the recycled water to a storage tank before distributing it to local businesses who can use of it as a heat source.



• Reclaimed water delivery pump installed

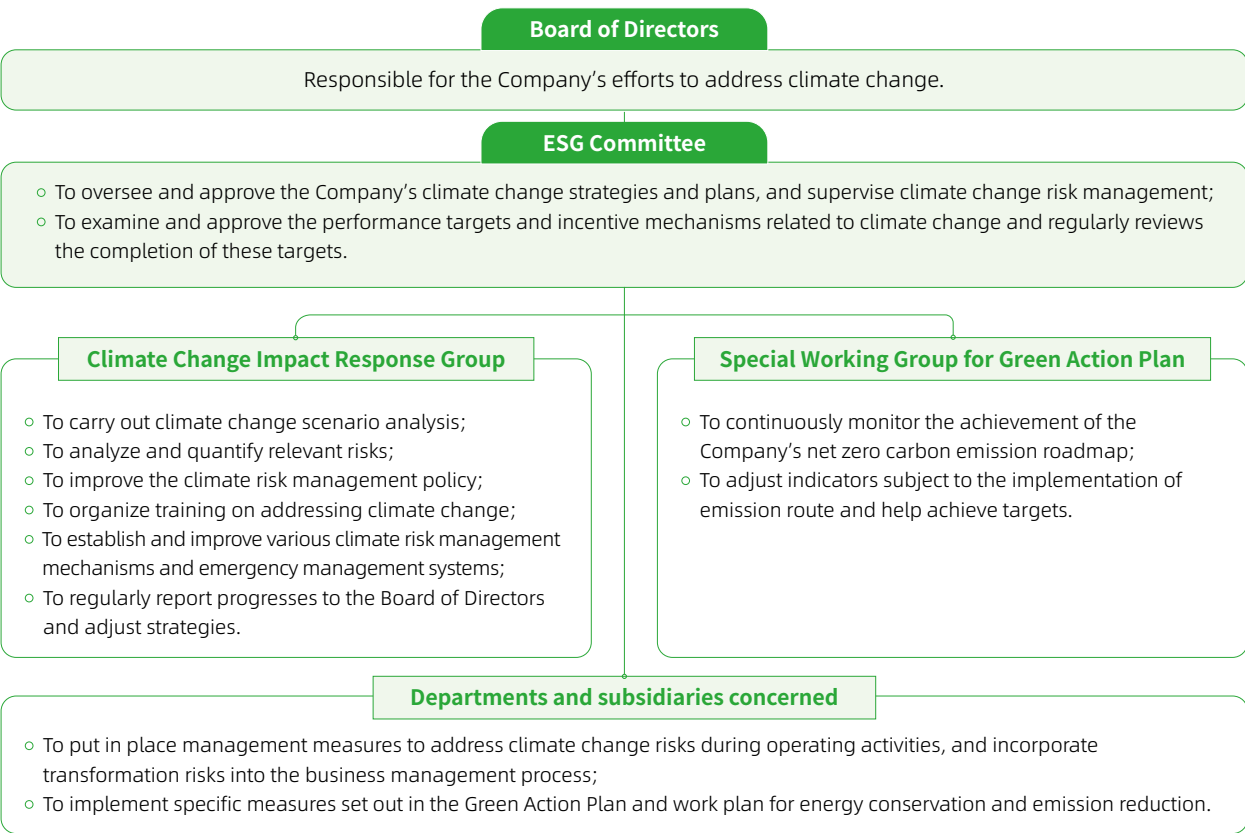
# Pragmatic Climate Governance to Realize Dual Carbon Targets

Upholding the concept of green development, ENN-NG carries out climate risk management from four dimensions of governance structure construction, strategy design, identification of risk and opportunity, and efforts to address climate change subject to the disclosure framework and management recommendations of the Task Force on Climate-Related Financial Disclosures ( “TCFD” ).

## Climate Change Governance Mechanism

ENN-NG keeps improving its climate change governance mechanism and incorporates climate change and transformation risks into strategic decision-making and day-to-day operation management. The ESG Committee at the Board level oversees the strategic planning on climate change, and a special group is set up to promote climate risk management.

Climate Change Governance Structure



ENN-NG has linked the relevant indicators of climate risk management with the remuneration of its directors, management and each business team and set up a Climate Change Impact Response Group at management level to ensure the effective implementation and supervision of relevant work.

In addition, in order to enhance the professional capability of employees in addressing climate change risk, ENN-NG actively organizes relevant training on addressing extreme weather and the risks of enterprises in green and low-carbon transition to systematically acquire knowledge about relevant national policies and regulations on “double carbon”, climate change risk and impact, corporate carbon inventory and management. In March and November 2022, ENN-NG organized online carbon neutrality LNG-related business training for the personnel from Zhejiang regional market and the regional market of supply chains. At the same time, online training courses on “carbon neutral natural gas” were recorded for all employees.

## Climate Strategy

ENN-NG pays particular attention to climate change risks and takes green and low-carbon transition as an important part of its strategy. The Company takes the lead in releasing the Green Action 2030 ENN Journey to Net Zero Panorama and Net Zero Carbon Emission Roadmap, setting out the 2050 carbon neutrality targets, short-, medium- and long-term emission reduction targets and implementation paths covering all scenarios and operations. Furthermore, we review and adjust the targets every three years to ensure that they are scientific, reasonable and time-efficient. We constantly focus on the disclosure requirements and guidelines of Science Based Targets initiative (SBTi) for the oil and gas sector in preparation for setting more scientific and stringent carbon targets within the Company.

ENN-NG overall targets of green action



## Management of Risks and Opportunities





ENN-NG carries out climate change risk management in strict compliance with the duties, methods and processes specified in its risk management system, incorporates assessment and management of climate change risk into its strategy, and gradually establishes a closed-loop management system for climate risk identification, assessment, control and supervision.





### Management Process for Risks Related to Climate Change



ENN-NG identifies and assesses relevant climate change risks and develops response measures by analyzing the national “double carbon” and climate change policies and types of natural disasters in combination with its operations so as to enhance the Company's business resilience in addressing the climate change risks. During risk identification involving significant issues, the Company actively communicates with all stakeholders to understand the risk types concerned and guarantee the comprehensiveness of climate change risk identification.



Risk Type	Risk Classifi- cation	Risk Source	Risk Description	Countermeasures
Trans- forma- tion risk	Policy risk	 Climate policies	<ul style="list-style-type: none"> <li>The climate policies will drive low-carbon transition which may lead to lower LNG demand</li> <li>Stringent environmental protection requirements lead to increased operating costs of coal mines</li> <li>Climate policies may raise requirements for environmental protection and energy consumption of construction projects, leading to higher costs</li> </ul>	<ul style="list-style-type: none"> <li>Expand diversified business, explore new energy market and actively promote low-carbon transition</li> <li>Strengthen environmental protection and improve energy utilization efficiency</li> <li>Promote R&amp;D and application of green building technologies</li> </ul>
	Technology risk	 Costs of low-carbon technology	<ul style="list-style-type: none"> <li>Low-carbon technologies are costly and have promotion difficulty</li> <li>Low-carbon technologies are costly in application and require long-term investment</li> <li>Low-carbon technologies need large R&amp;D investment and have difficulty in application</li> </ul>	<ul style="list-style-type: none"> <li>Reduce the cost pressure on low-carbon transition by policy encouragement and guidance</li> <li>Explore the cooperation model between ecological partners and enterprises to share the R&amp;D and promotion costs of low-carbon technologies</li> <li>Strengthen cooperation and explore the multi-party cooperation model to reduce the R&amp;D cost and promote the popularization and application of low-carbon technologies</li> </ul>
	Market risk	 Change in market demand	<ul style="list-style-type: none"> <li>The LNG price is subject to significant fluctuation as the market changes, resulting in possible profit decline</li> <li>Along with increasing market demand for clean energy, coal demand gradually decreases</li> <li>Market demand changes quickly and there are market risks in project construction</li> </ul>	<ul style="list-style-type: none"> <li>Increased market sensitivity, flexibly adjust pricing strategies and enhance the anti-risk capability.</li> <li>Carry out diversified layout, develop clean energy, extend industry chain and reduce dependence on traditional coal</li> <li>Improve project management capability, flexibly adjust project plans based on the change in market demand, and expand new business areas</li> </ul>
	Reputation risk	 Stakeholder concerns	<ul style="list-style-type: none"> <li>The LNG business has high requirements regarding environment and safety and may easily cause stakeholder concerns should an incident occur</li> <li>Coal mines result in severe environmental pollution and may cause social concern easily, and thus damage the image of the Company</li> <li>Project construction may be objected by local residents and stakeholders, thus increasing project risk</li> </ul>	<ul style="list-style-type: none"> <li>Strictly abide by relevant laws and regulations, strengthen measures for safety management and risk prevention, and enhance the sense of safety and trust of stakeholders</li> <li>Actively carry out environmental protection and take measures to reduce the pollutant discharge and improve the environmental quality</li> <li>Strengthen communication with local residents and stakeholders to raise the social acceptance of the projects</li> </ul>

Risk Type	Risk Classifi- cation	Risk Source	Risk Description	Countermeasures
Physical risk	Acute physical risk	 Typhoon, extreme rainfall and flood	<ul style="list-style-type: none"> <li>It may cause damage to LNG terminals and vessels, and delay in transportation</li> <li>It may result in impediment to coal mine transportation, equipment damage and interruption of production</li> <li>It may hamper construction and increase safety risk</li> </ul>	<ul style="list-style-type: none"> <li>Conduct risk assessment and adjustment with respect to transportation route and selection of ports in order to reduce areas and facilities that may be affected</li> <li>Formulate contingency plans, enhance equipment maintenance and strengthen construction safety measures</li> <li>Strengthen water conservancy measures and take flood control measures in risk areas</li> </ul>
		 Extreme hot and cold weather	<ul style="list-style-type: none"> <li>It may cause damage to LNG terminals and vessels, and delay in transportation</li> <li>It may result in the invalidation of ventilation equipment at coal mines and difficulties in production and operation</li> <li>It may hamper construction and increase safety risk</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen ventilation measures such as arrangement of vents, installation of air conditioners and use of air purifiers</li> <li>Take appropriate measures for temperature adjustment, enhance equipment maintenance and strengthen construction safety measures</li> <li>Monitor the parameters including temperature and pressure by using digital-intelligent monitoring system</li> </ul>
	Chronic physical risk	 Rise in average temperature	<ul style="list-style-type: none"> <li>High temperature weather may lead to bad meteorological conditions during berthing such as storm and rainstorm, and thus cause delay in departure of vessels from the port and blockage of berth</li> <li>High temperature weather may affect the production of coal mines and health of employees</li> </ul>	<ul style="list-style-type: none"> <li>Apply digital-intelligent means to develop planning for routes and berths in advance for high temperature weather, thus avoiding blocked berths or vessel delay due to meteorological reasons</li> <li>Strengthen heatstroke prevention and provide adequate drinking water and medical security for employees</li> <li>Reserve construction time to avoid impact from high temperature on construction progress</li> <li>Heatstroke prevention measures should be taken during construction to avoid harm to health of workers due to high temperature weather</li> </ul>
		 Sea level rise	<ul style="list-style-type: none"> <li>Sea level rise may lead to increased risk of flood disaster at sites such as LNG terminals</li> <li>Sea level rise may cause rise in nearby underground water level, increase the risk of water level rising inside coal mines, which could lead to problems such as water surge</li> <li>Sea level rise may affect project construction at coastal areas</li> </ul>	<ul style="list-style-type: none"> <li>Build higher piers, dykes and other protective facilities to ensure normal operation of LNG terminals</li> <li>Monitor and manage the underground water sources that may be involved and take timely measures to prevent the occurrence of problems such as water surge</li> <li>Take corresponding reinforcement measures for construction projects in risk areas, and carry out regular inspection and maintenance for completed buildings</li> </ul>

ENN-NG Climate  
Change Opportunities

Coupled with the above risks caused by climate change, it also provides historic growth opportunities for ENN-NG. Driven by the “Double Carbon” targets and supporting policies, the energy structure is facing reform opportunity. ENN-NG vigorously develops its integrated energy business, continuously promotes clean technology innovation and low-carbon energy transition, and works together with upstream and downstream supply chain partners to meet the challenges and opportunities brought about by climate change.

Identification of climate opportunities

Future Trend	Description of Opportunity
Low-carbon transition of energy structure	<ul style="list-style-type: none"><li>Promote green and intelligent transformation of coal mine enterprises to improve the resource utilization efficiency</li><li>The natural gas is replacing coal and other high carbon emission sources faster</li><li>Development opportunities of renewable energy construction and integrated energy projects</li></ul>
Low-carbon digital-intelligent technology innovation	<ul style="list-style-type: none"><li>The digital-intelligent technology can improve the efficiency of coal mines and LNG business</li><li>The intelligent monitoring technology can enhance safety and reliability</li><li>Low-carbon digital-intelligent technology is applied in project construction to reduce costs and increase efficiency</li></ul>
Growth of carbon emission trading market	<ul style="list-style-type: none"><li>The carbon emission trading market provides opportunities for enterprises engaged in coal mine, LNG and other business to reduce carbon emissions</li><li>Carbon emission reduction projects may benefit from carbon market</li><li>The emergence of carbon trading market provides access to financing and reduces the cost of funds for enterprises</li></ul>
Low-carbon development of industry chain	<ul style="list-style-type: none"><li>The energy industry chains such as coal and LNG is embracing obvious low-carbon development trend</li><li>Low-carbon requirements drive the development of industries such as new technology and new materials</li><li>Green and low-carbon project construction solutions go mainstream</li></ul>

Optimization of Demand Prediction Model for  
Acute Climate Risks

In 2022, ENN-NG optimized its demand prediction model to deal with the demand fluctuation caused by acute climate risks. We build a mathematical prediction model for the effect of temperature change on the volume of heating gas, and select some typical cities including Changsha and Shijiazhuang as the pilot cities to simulate the scenarios such as residential heating in southern area and centralized heating. We conduct model training and optimization by historical data treatment, analysis of relevant factors, temperature prediction under meteorological network and IOT data verification to continuously improve the prediction accuracy of the demand prediction model, effectively manage climate risks and provide scientific and effective prediction support for winter operation guarantee.

Development of “Digital-intelligent Price  
Information” Product for Climate Change Risks

In 2022, relying on years of experience in natural gas industry, based on climate change prediction by professional institutes and combined with the supply and demand of natural gas, ENN-NG developed the “Digital-intelligent Price Information” product which can fully show relevant data on the impact of policy changes and climate change on price in relation to piped gas by accumulation and visualization of price and transaction data regarding piped gas so as to enable the functions such as query and application.

Efforts to Combat Climate Change

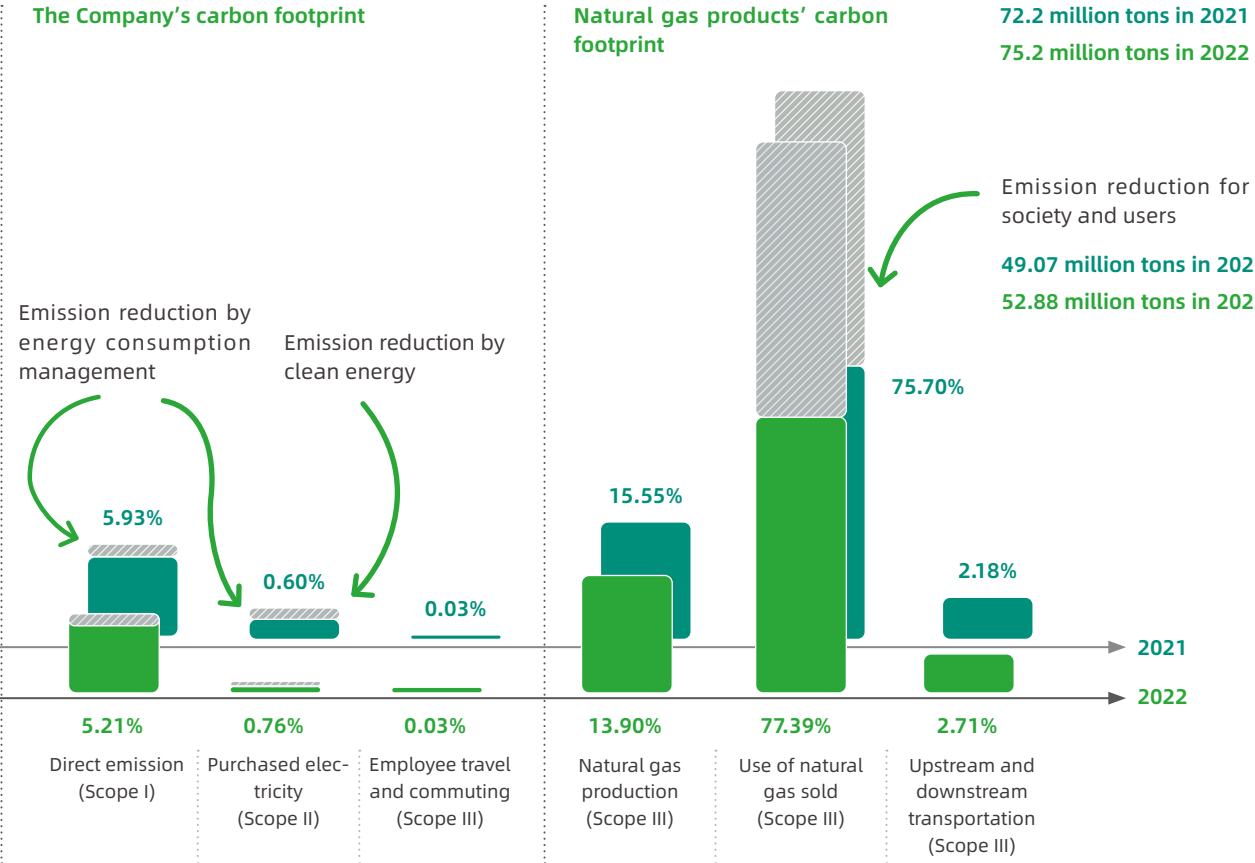
We are guided by the overarching goals as set out in the *Green Action 2030 - ENN-NG Journey to Net Zero* and highlight the principle of action and planning. In 2022, ENN-NG has vigorously promoted the greenhouse gas (GHG) emission management such as carbon inventory and methane emission reduction in addition to the measures to improve the energy utilization benefit and promote the use of clean energy. The Company's carbon emissions from its operations reduced by 200,000 tons of CO<sub>2</sub> equivalent over the previous year, providing strong support for the achievement of the strategic goals of carbon peaking and carbon neutrality.

The Company's carbon emissions from its operations reduced by

200,000 tons  
of CO<sub>2</sub> over the previous year

Carbon Inventory

ENN-NG continues to procure all subsidiaries to conduct carbon inventory and realize refined management over energy consumption and carbon emissions by identifying the GHG emissions level of these enterprises to further consolidate the foundation for their efforts in energy conservation and emission reduction. In 2022, ENN-NG worked with an international authoritative third-party consulting agency to carry out the measurement of calculation of the carbon emissions Scope III. The next step taken by the Company is to develop a targeted energy saving and carbon reduction plan based on the current emissions to keep promoting GHG emission reduction.





## Methane Emission Reduction

ENN-NG actively promotes methane emission control in the whole process of operation and uses its best efforts to recover the boil-off gas (BOG) generated during storage, transportation, transmission and distribution of gas so as to minimize the emission and leakage of natural gas in the course of the project construction and operation and the impact of methane emission on the surrounding ecological environment.

We widely apply digital-intelligent measures to monitor methane emissions on a real time basis to improve the reliability of monitoring data.

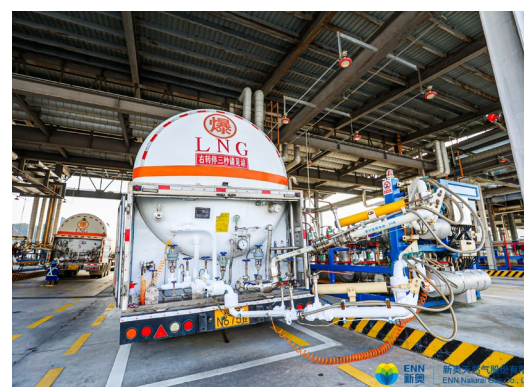
By the end of the Reporting Period,  
**ENN energy station has  
been achieved a full cov-  
erage of the laser plat-  
form monitoring system**

## Strict Control over Methane Emissions by Taking Various Measures

- The LNG tanker residual pressure relief device is installed and put into operation for the safe relief of low-temperature boil-off gas generated in the LNG tanker and avoiding the active relief of boil-off gas due to excessive pressure in the tanker.
- The overhaul scheme is optimized to reduce BOG evacuation due to overhaul by taking measures such as pre-cooling discharge pipelines of boil-off gas from storage tanks.
- The operation mode of flare pilot burners is optimized to reduce the BOG combustion quantity by reasonable control over the number of working pilot burners, provided safe and stable operation must be assured.
- The third-party entity is regularly appointed to detect potential leakage points at on-site processing devices and flange connections by applying LDAR technology, timely identify, repair and replace leaking components, and reduce methane leakage emission.
- BOG export is under control with the export mode adjusted rationally as per the export plan, and BOG output from storage tank is under reasonable control by operation of low temperature compressor + high pressure compressor to avoid flare venting.
- The unloading measures are optimized to reduce the amount of BOG generated during unloading by coordinating with the shipper to extend the time of pump starting, reducing the tank pressure in advance, and optimizing the feeding means.

## Tanker Pressure Relief Recovery System

Zhoushan Terminal is installed with four tanker pressure relief recovery devices to unload low-temperature BOG from the LNG tanker into the BOG system in the Terminal through the unloading arms and pipelines by connecting the BOG recovery system with the BOG header pipe in the Terminal so as to effectively recover the residual BOG in the tanker and reduce the safety risk of tanker bunkering. About 0.11 ton of natural gas is recovered for each tanker on average. With 75 tankers for pressure relief and recovery per day, about 8 tons of natural gas can be recovered each day, and the direct emissions of natural gas can be annually reduced by 2,630 tons and carbon emissions by about 70,000 tons equivalent.



• LNG Tanker

## ENN Putuo LNG Bunkering Vessel Achieving “Zero Emission” of Methane

ENN Putuo bunkering vessel is equipped with a gas combustion unit (GCU) with residual boil-off gas treatment capacity of 300 kg/h to recycle the BOG produced during bunkering other than those generated due to engine consumption. After over half a year of verification, the gas combustion unit was proved to satisfy the regulatory requirements regarding technology, safety and environment and realize zero emission of methane.

## Measurement Research on Methane Emissions in Gas Filling Station Scenario by ENN Energy and China University of Petroleum

Taking ENN Qingdao as the pilot site, the methane emissions in various urban gas scenarios were measured, and a methane emission research report was prepared and published to promote the exchange of academic research information and share of resources.

### Methane emission control research result:

- Perform methane measurement for 6 LNG filling station scenarios and 2 gas station scenarios and prepare relevant measurement reports
- Take a part in preparation and publication of academic papers related to methane emission from LNG filling stations
- Support the formulation of national and industrial standards based on the methane measurement conclusions



• Methane Measurement Site



# Stringent Emission Management for Efficient Pollution Control

The Company observes the related laws and regulations to ensure the stable operation of pollutant disposal facilities, up-to-standard discharge of pollutants discharged and proper treatment of various wastes.

## Wastewater and Exhaust Gas Management

The wastewater of the Company mainly includes production wastewater, domestic wastewater and mine water. Following the principles of “separation of clean water and sewage, separation of rainwater and sewage, and multiple uses of water”, we enhance the wastewater utilization rate and vigorously promote the realization of the goal of “zero discharge” of wastewater. The Company requires all subsidiaries to apply for and obtain the pollutant discharge permit at its locality in strict accordance with relevant regulations and to standardize the construction of wastewater treatment system pursuant to the pollutant discharge permit and discharge standards.

ENN-NG strictly controls the discharge of air pollutants. For the sulfur dioxide, nitrogen oxides, soot and volatile organic compounds generated during the operation of all subsidiaries, the Company adopts special treatment plans, insists on the control over air pollution sources, and continuously reduces the exhaust emissions by means of upgrading and reforming waste gas treatment facilities and applying advanced prevention and control technology.

## Waste Management

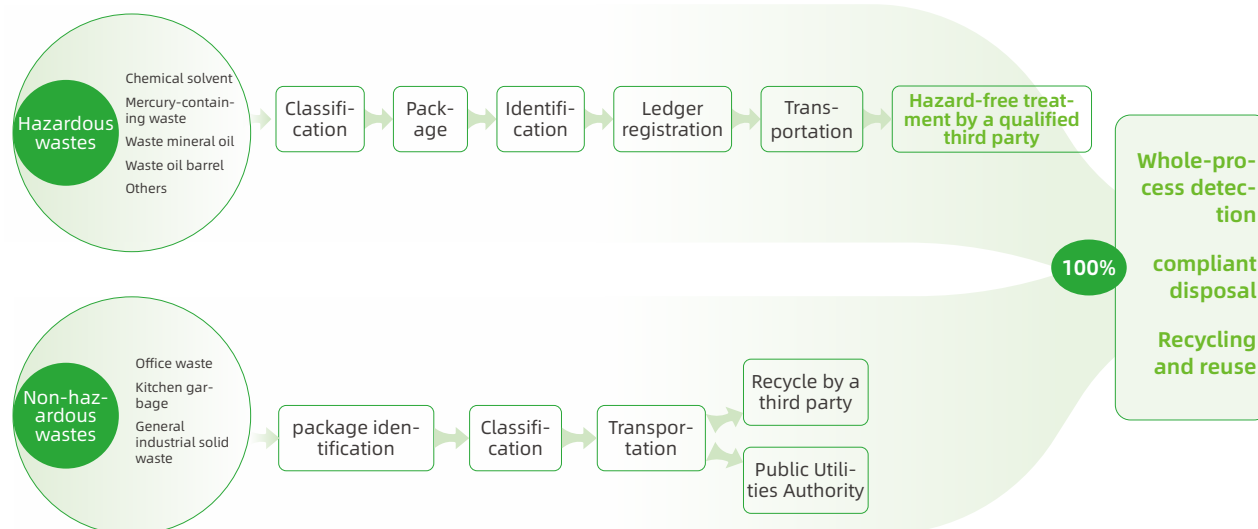
ENN-NG strictly complies with relevant laws and regulations, follows the waste disposal principles of “reduction”, “recycling” and “hazard-free disposal”, and promotes the standardized management of wastes. We set the annual management target of 100% compliant disposal of hazardous wastes, require all subsidiaries to prepare disposal plans for hazardous wastes and dispose of hazardous wastes in strict accordance with such plans. Backfill of hazardous wastes is prohibited. Besides, all subsidiaries of ENN-NG set the annual reduction target for various wastes and take multiple means to reduce the amount of wastes generated.

By the end of the Reporting Period, the Company has **Zero** Occurrence of water pollution accidents or violation of regulations on the disposal of wastes

We set the annual management target of

**100 %**  
compliant disposal of  
hazardous wastes

Whole-process detection  
100% compliant disposal  
Recycling and reuse



## Waste Sorting at Zhoushan Terminal

Zhoushan Terminal set up a leading group for waste sorting, organized regular training sessions, arranged classified points and bulletin boards, entered into removal agreements, and achieved waste sorting and recycling utilization in the plant. In 2022, it was awarded as the “Advanced Unit of Waste Sorting in Zhoushan Hi-tech Industrial Park of the Year”.



Waste Sorting Poster



Waste Sorting Training Site



Certificate of Honor for the “Advanced Unit of Waste Sorting”

## Noise Management

The Company requires the QHSE management department of each subsidiary to regularly monitor the noise at boundary and ensure that the noise meets the national standards so as to mitigate the interference from production to the surrounding environment.

### Measures taken by the subsidiaries to reduce noise

#### Xinneng Mining

- The vibration equipment is installed with a vibration reduction base;
- Make reasonable planning layout, adopt noise elimination and insulation measures, and select low noise equipment;
- Complete and put into use noise enclosures for south and north air shaft fans.

#### ENN Qinshui

- ENN Qinshui adopts low-noise products subject to the satisfaction of process requirements;
- Install soundproof sponge at the pressurized end of expansion machine and silencers at the inlet and outlet of air compressor to reduce noise;
- Equipment with large noise is placed indoors for sound insulation, and doors, and windows and masonry are made of sound insulation and sound absorption materials to prevent the diffusion and transmission of noise;
- Change the original open cooling tower to closed cooling tower, thus greatly reducing the noise.

#### ENN Energy

- Set up noise monitoring points to dynamically monitor the sound environment;
- Use low-noise mechanical equipment, and install sound insulation devices such as soundproof screens and mufflers for high-noise equipment;
- Reasonably arrange construction machinery operating time, and schedule high-noise operation activities during periods that do not affect social life.

#### Zhoushan Terminal

- Noise isolation panel is arranged on the south side of air compressor room.



# Upholding the Red Lines for Ecological Protection

ENN-NG attaches great importance to the biodiversity conservation, carries out biodiversity assessment in all scenarios of its business, and insists on a more ecology-friendly construction method to reduce the impact on ecological environment and realize the harmonious coexistence of its business development and natural environment.

## Biodiversity Management


In 2022, the Company released its *Biodiversity Conservation Policy* and encourages all subsidiaries to formulate relevant ecological protection systems based on their actual business development, insist on science-based construction and actively take such compensation measures as conservation and restoration to minimize the impact on ecological environment in the process of operating.

As the highest responsible organization for biodiversity conservation, the ESG Committee at the board level continuously promotes and oversees the work and progress in biodiversity conservation. With the goal of “No-net Loss” (NNL) of biodiversity and “Net Positive Impact” (NPI) on environment, ENN-NG takes biodiversity into consideration in project planning and sets an ecological red line (ERL). The Company collects environmental assessment reports from its corporate members on a regular basis, conducts potential impact assessment of biodiversity on an ongoing basis, and takes the results of ecological protection initiatives such as frequency and area of ecological restoration and frequency and quantity of plants and animals protection as the biodiversity management indicator for annual assessment, management and disclosure to safeguard our green China.




**Sustainable management of natural resources and raw material use**

- Promote the utilization of renewable energy and the development of biomass energy technology;
- Adopt energy saving and environmental protection concepts and actions throughout the business chain;
- Implement waste sorting management and ecological protection requirements and urge the suppliers to fulfill their ecological protection obligations.



**Restoration of disturbed land and habitat**

- Selection of project site is under strict control and no site shall be located within the ecological conservation red lines (ECRLs);
- The target and scope of excavation should be confirmed, and the vegetation surrounding the construction area cannot be damaged without authorization;
- Ensure the timely restoration of land surface and soil after the completion of projects, and encourage the public welfare projects on biodiversity conservation, afforestation, habitat and wetland restoration, etc.



**Respect for indigenous people and reduction of impacts on communities**

- Respect the informed consent right of indigenous people and communities, and comply with legal, public and customary rights in the land;
- Establish an open and transparent consultation procedure and properly address emergencies, complaints and conflicts;
- Strictly control building construction noise and flowing dust pollution, reasonably arrange operation duration, and set up barriers to protect nearby residents.







## Biodiversity Actions

### Impact assessment

The Company appoints a third-party professional agency to analyze the potential ecological risks and impacts from its business and prepare a biodiversity risk analysis table. Meanwhile, we implement environmental impact assessment and biodiversity due diligence following the requirements of national laws and policies to fully identify potential biodiversity risks in each project.



Potential Biodiversity Impact Assessment

Potential Impact	Impact Description	Upstream Development	Operation	Downstream transportation
 Potential death of individual animals and plants	Ecological changes are caused due to construction and project construction, affecting the survival of biological beings	Low	Low	Low
 Air pollution, radiation, noise and light pollution	The construction results in removal of local vegetation, air pollution, noise pollution, personnel interference and other impacts on floral and fauna	Low	Low	Low
 Introduction of alien species, pests and pathogens	Possibility of species translocation or spread during construction and operation	No significant impact	No significant impact	No significant impact
 Species loss	The construction and operation of infrastructure have impacts on some species, such as birds and aquatic animals around coal mines and terminals	Medium	No significant impact	No significant impact
 Habitat fragmentation	Changes in land use and permanent presence of facilities in natural areas may cause damage to the affected biology habitats	Medium	Low	Low
 Habitat change	Changes in the local environmental conditions at the locality of biology	Low	Low	No significant impact

### Environmental Impact Assessment of Zhoushan Terminal Construction Project Phase III

Water intake and discharge for the Zhoushan Terminal LNG Tank and Ancillary Facilities Project Phase III may have impacts on the surrounding marine environment. The Company therefore organized marine environment impact assessment which mainly involved survey of current regional marine environment, analysis of the impact from water intake and discharge for production on surrounding marine environment in the operation period and prevention & control countermeasures, and survey of public opinions on project environmental impact. Based on the results of multi-party analysis, the Project has passed the environmental feasibility assessment by the Bureau of Fishery Administration in the East China Sea, the Ministry of Agriculture.

Protective Measures

The Company systematically takes into account the potential biodiversity risks before commencement, during construction and after completion of projects, and formulates biodiversity conservation initiatives to mitigate the biodiversity impact on the operation areas following the principles of “avoidance, reduction, restoration, offset and compensation”. We will set up a separate biodiversity management plan for the link evaluated to be highly risky to maximize biodiversity conservation.

Green Construction Principles

Before commencement

- Strictly comply with the *Law on Environmental Impact Assessment* and other relevant laws and standards to conduct comprehensive environmental assessment for the atmospheric environment, water environment, acoustic environment and soil environment
- Carry out study on project environmental protection plan, analyze the present environmental quality in the area where the project is located, and identify the ecological environment elements
- Set stringent assessment criteria for ecological protection areas such as water sources and animal habitats
- Strictly prohibit construction in such areas as nature reserves, ecological functional areas, forest parks and dense forest areas

During construction

- Put into practice the concept of green construction so as to minimize negative impact on the environment while ensuring safety and quality
- Carry out comprehensive environmental monitoring based on digital-intelligent technology to accurately identify environmental risks and take effective management measures
- Select low-noise equipment
- Delineate special routes and lanes
- Avoid excavation of vegetation and trees
- Minimize the possibility of intruding on animal nests
- Arrange a special storage area for planned wastes, take anti-seepage measures and conduct uniform non-hazardous disposal for these wastes

After completion

- Restore the original state in a timely manner and make ecological restoration efforts
- Transplant the plants that cannot be avoided during construction excavation and conduct compensatory planting after the completion of construction



Mining Vegetation Restoration at Xinneng Mining

In order to restore the ecological vegetation in Yijinhuluo Banner mining area and improve the functions of ecological system of mining areas, Wangjiata Coal Mine of Xinneng Mining Co., Ltd. organically integrated the land reclamation for subsidence area and comprehensive utilization of drained water following the principle of “one policy for one mine” to realize the comprehensive utilization of resources and develop ecological agriculture and animal husbandry according to the local conditions.

In 2022, were planted on  
56 mu of land

5,600 trees

Farmland

100 mu

Grassland

130 mu

Annual carbon emis-  
sions may reduce by

148 tons



• Before and After the Restoration at Yijinhuluo Banner Mining Area

Release of the first *Biodiversity Conservation Report*

In 2022, ENN-NG released the first *Biodiversity Conservation Report* in the industry by reference to the *Taskforce on Nature-related Financial Disclosures* ( “TNFD” ) guidelines, systematically disclosing its practice and value-created achievements in the field of biodiversity conservation. The Report covers all-scenario business of ENN-NG and sort out the ecological impacts caused by its business operations from five dimensions of land-use change, climate change, pollution, overdevelopment, and species invasion to adjust the biodiversity conservation initiatives according to local conditions. In addition, if any operating site is closed down, we will undertake to carry out ecological restoration and endeavor to promote the protection of ecological environment.





# 04

## Empower Talents and Create Value Together

### Important ESG issues addressed in this Section

- Equal employment
- Employees' development and training
- Protection of employees' rights and interests
- No forced labor and child labor

### ESG goals addressed in this Section



### HKEX ESG indicators involved in this Section

- B1 Employment
- B3 Development and Training
- B2 Health and Safety
- B4 Labour Standards

ENN-NG deems employees as a cornerstone of its sustainable development. Through the main talent inspiration line of "I have opportunities, I have resources, I have sharing, and I have growth", it has built and improved on its digital intelligence platform three major talent inspiration systems, including "Value creation identification - Evaluation - Sharing", "Talent Labeling" and "Role and Ability". We fully protect the legitimate rights and interests of our employees, improve various remuneration and benefit protection plans, attach much importance to training and development for employees, and help each employee achieve their value. Meanwhile, we pay attention to the demands of our employees and their physical and mental health, and keep improving their satisfaction. We are committed to enabling each employee to create value, receive care and love, grow up and share in a diversified, fair and harmonious working environment.





# Where Talents Meet Unlimited Opportunities

ENN-NG adheres to the principle of “fairness, openness and impartiality” in talent introduction, protects legitimate rights and interests of employees, and is committed to providing each employee with an equal and inclusive working environment.

## Attracting Talents to Create the Future Together

ENN-NG follows the principle of “openness and equality”, clarifies the employment standard, and manages the entire process of recruitment, promotion and resignation. We avoid child labor, ineligible employment and dishonesty by establishing qualification standards, adopting a multiple-round interview system and engaging third-party agencies to verify information of candidates. Meanwhile, we actively promote the employment of the disabled and provide them with living security, fully protecting the employment rights and interests of the disabled.

In 2022, ENN-NG carried out extensive corporate presentations for different businesses and different positions, and introduced diversified talents in an open, equal and merit-based manner through campus recruitment, social recruitment, and on-line recruitment. We have also improved the standard for talent introduction to provide jobs for outstanding fresh graduates and job seekers, vigorously empowering our talent pool.

4,546

Total number of  
new employees

3,974

Total number of new  
employees from social  
recruitment

572

Total number of new employees from campus  
recruitment

20%

Proportion of employees from “Double First-rate”  
colleges and QS Top 100 colleges\*



• ENN-NG campus recruitment



• ENN-NG-Tsinghua metaverse mutual selection job fair



\* The data do not include ENN Energy

## ENN-NG Air Presenta- tion Job Fair

ENN-NG carries out campus recruitment events on multiple platforms by on-line presentations, providing an in-depth explanation of its strategic direction, business situation and recruitment demands, and publicizing from platforms, career opportunities, benefits and other aspects, to attract outstanding talents.

The presentation reached around 2,000 views, with a good publicity effect.



• ENN-NG air presentation career talk

In 2022, ENN-NG carried out HR capital risk assessment and analysis based on the Company’s business strategic objectives, providing strong support for the effective establishment of a talent pool. Through the analysis of employee turnover and talent structure, we have sorted out our main direction in the introduction, cultivation, deployment and appointment of strategic talents.

To reach the full potential of employees, the Company implements and keeps optimizing an independent turnover management mechanism, to create more opportunities and attract more talents, fully match employees with positions, and enhance the organization’s vitality and employees’ enthusiasm. Based on talents’ abilities, experience, value creation and other data, we promote outstanding talent resources to key positions, relying on talent labels formed by digital intelligent products. To break organizational boundaries, we have established a sharing mechanism of on-demand gathering and separation teams based on value creation objectives, actual value creation outputs and capability evaluation, to ensure the positive turnover of employees and help them find suitable positions, so as to improve their satisfaction and promote the growth of middle-level leaders in leadership and professional skills.

## Right Protection, Diversity and Integration

ENN-NG strictly follows requirements under state laws and regulations, formulates a number of internal management policies, and protects the basic rights and interests of employees.

- We support international initiatives related to labor rights and insist on equal employment, without any discrimination on the basis of gender, region, ethnicity, religion, age, pregnancy or marital status, disability, or political affiliation in the recruitment, promotion and dismissal of employees. We also resist employment of child labor and forced labor in any form.
- We have Halal windows in our canteen for minority employees, to protect their rights and interests.
- We hold a zero-tolerance attitude towards any form of harassment, abuse or coercion in our workplace and in any work-related environment outside the Company. We have clear specific measures to prevent sexual harassment in our policies and have incorporated them in our management, to protect employees, especially female employees, from injustice and retaliation.
- We provide employees with a full range of protection, including an improved labor complaint due diligence process, and implement internal management rules to carry out investigation, evidence collection, follow-up and reporting to government agencies, to ensure effective supervision of rights and interests of employees.

## OPENDAY Campus Re- cruitment Event

In July 2022, ENN-NG launched the OPENDAY event, to fully demonstrate the advantages of its platforms. The event was attended by Zheng Hongtao, President of ENN-NG, and the Chief Talent Inspiration Director. By providing Company visits presentations, free exchanges, camping and other activities to students, ENN-NG effectively promoted its brand and successfully recruited a number of outstanding college students.



• OPENDAY campus recruitment event



In 2022, there were

no

employment discrimination, harassment, child labor or forced labor in ENN-NG, and our labor dispatch complies with state regulations.



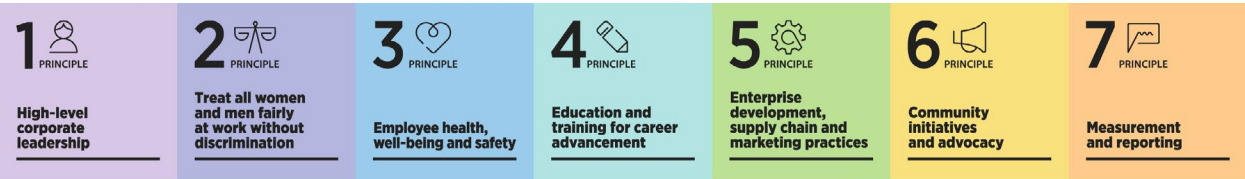
We value the role and contribution of female employees in the Company, and we support the growth and development of female employees by providing them with fair pays and benefits, career development opportunities and training. To further practice and maintain a diversified working environment, the Company conducts audit on employee diversity on a regular basis, including the ratio of female executives and the proportion of male and female employees.

In support of

**WOMEN'S  
EMPOWERMENT  
PRINCIPLES**

Established by UN Women and the  
UN Global Compact Office

Yu Jianchao, Vice President and Co-Chief Executive Officer of ENN-NG, signed "Women's Empowerment Principles" of the UN Women. The Company will actively implement the principles of the UN Women's empowerment declaration and make unremitting efforts to achieve gender equality. ENN-NG will implement the initiative with other signing parties and members of the United Nations Global Compact, and ENN-NG has thus become the first company in the A-share gas industry to sign the initiative.



**Women's Day**

The Company organizes health knowledge lectures and free clinics, guides female employees to maintain a healthy lifestyle, and provides professional knowledge support for physical and mental health of employees.



• Health knowledge lecture

ENN-NG female partners with successful careers are interviewed, who share valuable working experience and insights into a happy life.



• Video of interviewing the most beautiful ladies

The Company organizes special cultural and sports events for female employees, such as planting flowers and trees, handmade salons and outdoor sports, to reduce their work pressure while help them exercise both physically and mentally.



• Women's Day activity for female employees

**Where Teams Collaborate to Thrive**

**Value Assessment**

ENN-NG assesses the performance of each employee in a comprehensive manner according to their characteristics at work through the "work style label". By carrying out value creation assessment for all employees, the Company allows them to formulate and review on a regular basis their personal development achievements, so as to help them grow effectively.

The Company continues to deepen its talent cultivation, and evaluates and sorts out the capabilities and development of employees at all levels through a general plot of role competency, a 360-degree reviews and other tools on a regular basis, facilitating its talent selection and career development of its employees.



综合评分				
人员	个人得分%	总体平均分	分偏差	详细报告
	9.22	8.79	0.43	个人测评报告
	9.39	8.79	0.6	个人测评报告
	9.61	8.79	0.82	个人测评报告
	8.16	8.79	-0.63	个人测评报告

• Results of 360-degree performance review

**Remuneration and Benefits**

ENN-NG continues to create a scientific and reasonable remuneration and benefit system, adheres to the principle of equal pay for equal work, implements an incentive policy where remuneration incentives and non-remuneration incentives are both implemented, and provides a remuneration structure including fixed salary, year-end double pay, project bonus and year-end incentive. In 2022, we conducted an external market remuneration data survey for key positions, adjusted our remuneration strategies in a timely manner, and provided our employees with remuneration packages that were competitive in the industry.

ENN-NG has improved and implemented its value creation and sharing system, inspiring the initiative and self-motivation of the employees to the largest extent. We continue to promote the implementation of medium and long-term incentives, and formulate a restrictive stock sharing plan for medium and long-term incentives. During the reporting period, 59 people, including directors, senior officers, core management/business personnel, et al. of the Company (including its branches and subsidiaries), were entitled to incentives thereunder.

The Company pays social insurances and housing funds for employees in strict accordance with state policies and regulations, and provides employees with critical illness insurance and other commercial insurances as well as maternity allowance, heat-stroke subsidy, etc., for a comprehensive coverage of multiple benefits.

ENN-NG provides all its employees with holidays and benefits that comply with national and local laws and regulations, safeguard their rights under a comprehensive working hour system and a paid annual leave system according to law, as well as their normal leave rights such as maternity inspection leave, maternity leave, breastfeeding leave and nursing leave. In 2022, the Company revised the "ENN-NG Administrative Measures for Attendance and Leave", where parental leave, third-child maternity leave, parental leave, etc. were added therein in accordance with the latest national policy. To better care for the physical and mental health of our employees, we adopt a flexible working from home policy in accordance to the work duties and needs of the employees, so as to help them create value by themselves under the premise of health and safety.

By 2022, the social insurance coverage of our employees reached

100%



## Where the Greens Take Root to Blossom

ENN-NG understands that its employees are an inexhaustible driving force for it to achieve sustainable development. We actively create a clear, flexible growth path, and promote our employees to maximize their personal value, committed to realizing the common growth of the employees and the Company.

The Company formulates talent development strategies, sorts out organizational capabilities in various business scenarios, and formulates talent and capacity building objectives. We prepare capability maps, role tags and capability improvement plans in various business scenarios, to ensure talents available at the moment, and at the same time build a talent pool to achieve sustainable development of talents.

Committed to providing our employees with all-rounded training that meets job requirements and career planning, we build a multi-level training platform for our employees, to gather core motivation for the Company's development. In 2022, the Company improved its training management system and resource building, covering 9 major product directions and 120 courses, with accumulatively 8,500 times of learning and a construction completion rate up to 100%.

### ENN-NG Training System

#### ● Talent Cultivation Programs

- Elite Program
- Grit Leadership Development Program
- Job Shadowing Program For Newcomers

#### ● Business Development Programs

- National Intelligent Operation Training Program
- ECO Business Talent Development Program
- Soaring Wings Program
- Construction Scenario Designer Development Program
- ...

#### ● Advanced Improvement Programs

- New Financial Manager Program
- Anxin Pioneer Camp
- Xin'an People Program
- Training On Carbon Management
- Training On Carbon Peaking And Carbon Neutrality
- Training On Carbon Neutrality LNG Business
- On-line Training Course On Carbon Neutrality For Natural Gas
- ...

#### ● Job skill programs

- Serial O Skill Level Certification In Production And Operation Scenarios
- ...

### Training on the Writing of Full-scenario Official Documents for the Energy Sector

In September 2022, ENN-NG launched the "Training on the Writing of Full-Scenario Official Documents for the Energy Sector", fully covering the Company's energy sector. More than 1,300 participants have successfully had their ability to write official document improved for various organizations in the energy sector with standardized use of language and accurate expressions, which helps them to create value efficiently.



● Scene of ENN-NG "Training on the Writing of Full-scenario Official Documents for the Energy Sector"

## "New Financial Manager" Development Program

In July 2022, ENN-NG launched a half-year "New Financial Manager" program to develop financial rising star, where high-potential young talents from various business departments were selected to build a financial talent team supporting business transformation and upgrading. Focusing on the two main lines of learning & development and behavior transformation, the program provided special learning and community interaction in mentality, thinking, key professional improvement, individual and team practice and other aspects, to support the upgrading and transformation of the financial management team and accelerate the enhancement of the comprehensive capabilities of the "financial managers".

### 新奥股份新财人-财运骨干培养项目



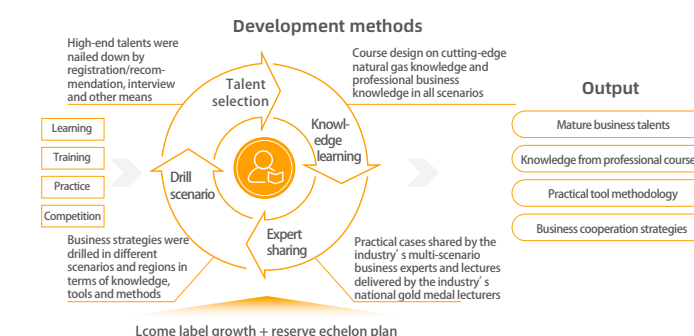
● Scene of the "New Financial Manager" event

## ECO Business Elite Development Program

Covering over 120 natural gas business staffers, the training developed a group of business elites with a vision of the entire natural gas industry chain, who are able to aggregate ecological resources in multiple scenarios.



● Site of the ECO Business Elite training



● ECO business elite training model



## Where Staff Feel Appreciated and Cherished

ENN-NG cares about the physical and mental health of its employees, and keeps improving their sense of identity, sense of belonging and sense of happiness by festival activities, care for employees, health stations and other means.

### Communication with Employees, with Altruism and Symbiosis

By surveys on voices of the employees, face-to-face forums between top level officers and employees, and trade union chairman's interview of the grassroots and other means, the Company has built democratic communication channels to understand the voices, challenges and programs of grassroots employees. The Company has established various complaint channels for the employees, such as the compliant hotline, complaint email and discipline inspection committee in the grassroots party organization, to ensure that employees are free from restriction and safeguard their rights and interests. Meanwhile, we give timely feedback on any questions raised, and give clear answers within 3 business days, and for any issue that cannot be resolved as scheduled, we will track it and explain the reason, so as to ensure timely response to the employees' appeals and reinforce the supervision by employees.

The Company supports the employees' rights of free association, assembly and joining trade unions according to law. In 2022, ENN-NG's collective bargaining agreement covered 100% of its employees.

### ENN-NG Held a Forum with Young Employees

In September 2022, the Company organized a forum between top level officers and young employee representatives, to help with the fast growth of new college students and young talents. The event gathered more than 20 representatives of new and old employees to have a face-to-face communication. The old employees talked about their growth journey and gave advice based on their past experience, providing a direction for the young employees to deeply integrate into the team and accelerate their business recognition.



• Scene of ENN-NG forum with young employees



In 2022, we launched an employee voicing digital intelligence platform. The employees may submit personal demands, reasonable suggestions, safety hazards and other information through the employee voicing module at any time, which help realize the goal of "response to every question and resolution for every problem". In 2022, we received 937 effective suggestions in total, and resolved 897 suggestions in total in 12 categories, including logistics support, salary and benefits, team atmosphere, excellent operation, employee care, digital intelligence upgrading, etc.

In 2022, the Company conducted an employee survey, to fully understand the employees' satisfaction with the Company's low-carbon development, digital empowerment, work value and working environment. This event covers the high-level and middle-level management, front-line team leaders and grassroots employees, with a participation ratio of 60.7% and an average satisfaction degree of 4.26 (out of 5). Besides, we analyzed, discussed and summarized the survey results, formulated and implemented an improvement plan, and continuously improved employee satisfaction throughout the year.

### Caring for Employees, and Sharing Warmth

ENN-NG has continued to provide warm caring measures for employees, revised the "'Five Must-visits' and Exceptional Poverty Subsidy Management Measures of ENN-NG Natural Gas Co., Ltd. ", and expanded from "Three Must-visits" to "Five Must-visits" (marriage visit, disease visit, childbirth visit, employee bereavement visit, and employee family bereavement visit), to enhance the employees' sense of belonging and sense of happiness through physical and mental health care, assistance for employees in need, recreational and sports activities, epidemic caring and many other measures.

The Company has established an exceptional poverty relief plan, and continued to conduct the "Half-day Donation" event for employees to help each other. The Company has helped relieve the pressure from medical expenses for employees or their family members that are seriously ill by providing relief funds for condolences.

employees under mutual aid in 2022

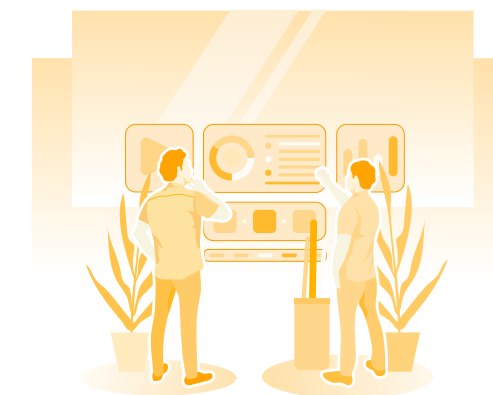
139

Employee partici-  
pation ratio

60 %

Consolation money

590,000 RMB



• Employee voicing digital intelligence platform

Employee participa-  
tion ratio

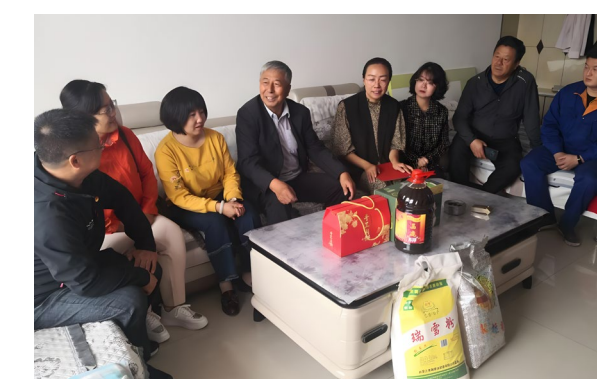
60.7 %

Average satisfac-  
tion degree

4.26



• ENN-NG assists its employees in handling the "Filing for Urban Employees in Need"



• ENN-NG gave condolences to employees in need



## Key Employee Care Activities Conducted by the Company in 2022

### ENN-NG Moon Festival

“Moon Festival” is ENN-NG’s unique festival, as a tacit agreement between ENN-NG and families of outstanding employees during the Lantern Festival each year. On February 15, 2022, the headquarter of ENN-NG Group organized the 28th Moon Festival event with the theme of “Draw a dream with unity on the auspicious moon”.

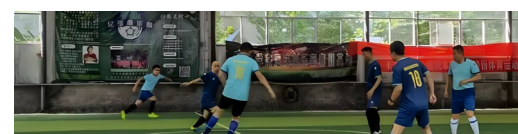
ENN-NG’s Co-Chief Executive Officer Yu Jianchao, President Zheng Hongtao, Party Committee Secretary Wang Shihong, Trade Union Chairman Fu Jiguo and some conveners of the empowerment group participated in a family forum, where outstanding employees and family representatives gathered together, communicated with each other, listened to voices of the family members, and celebrate the Moon Festival together.



• Scene of the 2022 ENN-NG Moon Festival

### Various sports activities

In July 2022, ENN-NG organized the “4th Sports Month of ENN-NG”, including soccer, basketball, table tennis and badminton, with 174 participants in the event.



• Scene of Sports Month

### ENN-NG launched the “Mid-Autumn Garden Party”

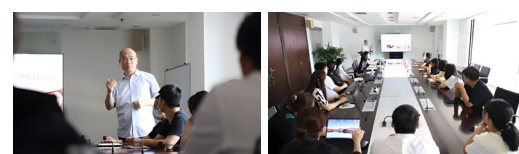
In September 2022, the Company launched the 2nd Mid-Autumn Festival Garden Party with the theme of “The moon in the hometown is the brightest, admired by designers together”. The garden party provides various activities, such as a variety of entertainment games, DIY snacks for the Mid-Autumn Festival, etc., helping everybody relax after the busy work, promoting the communication between them, and making everyone feel the warmth of the big family.



• Scene of ENN-NG “Mid-Autumn Garden Party”

### Free clinic

ENN-NG’s trade union organized the free clinic for employees in the third quarter, inviting a therapist from the Psychology Department of Sanliao Health to deliver psychological counseling lectures. The therapist started the event with a hypnosis game, promoting the participation of the participants, and explained the “Festinger’s Law” in detail, helping everyone to learn how to adjust their mentality in the face of pressure and changes, so as to solve problems easily.



• Scene of free clinic

### Driver health corner

As needed for drivers, ENN-NG has set up a driver health corner, to provide drivers with small fitness equipment and massage devices, helping them solve problems such as immobility due to the nature of their special job, so as to give them more care and promote their health for value creation.



• Scene of free clinic

## Led by Party-building, Staying True to the Mission

ENN-NG has continuously improved the construction of its Party organization, and strengthened the construction of its Party-mass system and process. The ENN-NG Party Committee consists of 5 Party committees, 30 Party branches, 11 Party groups, a total of 800 official Party members, and 25 Youth League organizations. Most of the grassroots Party organization secretaries are members in the business decision-making group, who can actively promote the organic combination of Party-building work and the operation of the Company, to ensure the implementation of grassroots Party-building work. Furthermore, the Company attaches great importance to the organization and construction of trade unions, and has fully implemented a trade union system, with 34 trade unions established, with a coverage of trade unions up to 100%, bringing the Party-masses organization to the grassroots level, and implementing the Party-mass work effectively. In 2022, we actively carried out a number of Party-building activities, such as “Celebrate CPC’s 20th National Congress and forge ahead on a new journey”, led the Company to achieve comprehensive high-quality development with first-class Party-building work, and developed a team of industrial workers who are self-driven, innovative and down-to-earth, professional and skilled.



• Watching the opening ceremony of the 20th National Congress

Trade union coverage

100%





# 05

## Embrace Digital Intelligence for a Green Industrial Chain

### Critical ESG issues addressed in this chapter

- Sustainable supply chain
- Intellectual property protection
- Product and technological innovation
- Community public welfare activities
- Community relations and impacts

### SDGs addressed in this chapter



### Stock exchange ESG indicators covered in this chapter

- A3 environment and natural resources
- B5 supply chain management
- B6 product responsibility
- B8 community investment

ENN-NG is committed to low-carbon development, invests in the R&D of frontier technologies of low-carbon energy, and relies on digital intelligence ecology to provide low-carbon energy utilization solutions with “energy and carbon integration”. While realizing the low-carbon transformation of its own business, the company provides customers with more low-carbon and cleaner products and services, becoming an explorer and active promoter of green development.

The company actively engages in industry exchanges and works with elite schools in industry-university-research corporations. In addition, we focus on community development, public aid to schools, and other areas to continue to give back to society and promote sustainable social development.



# Digital Intelligence Empowers Ecology

In order to seize the opportunity of energy system reform and steadily advance the strategy of “intelligent natural gas operation platform”, ENN-NG has built a smart platform for the natural gas industry to accelerate the aggregation of demand, resources, delivery, and reserve ecology of the natural gas industry as well as innovate and develop digital intelligence services. With digital intelligence, it supports all-scenario business, aggregates industrial ecology, and creates value for customers. The company links the ecology of all parties in the industry and propels the digital intelligent upgrading of the natural gas industry, empowering the natural gas industry with intelligence, value, and energy.

## Intelligent natural gas operation platform, empowering the all-scenario natural gas transaction

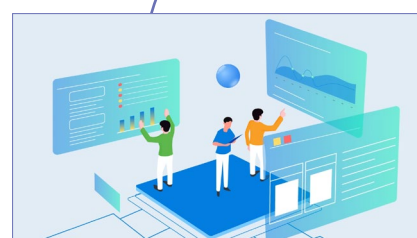
The company continues to build and iterate the platform, covering various scenarios from border transactions to smart delivery and from smart operation to energy utilization services, meeting the digital intelligent needs of ecological partners in multiple scenarios. Six major products were launched in 2022:



**Client:** provide commercial and industrial customers with online natural gas transactions + full life cycle gas services.



**Smart transaction:** provide the entire process of online closed-loop transaction services to improve transaction efficiency and user experience.



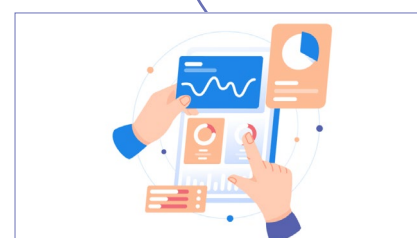
**Multi-role workbench:** solve the pain spots of resource procurement, delivery, and operation roles and rapidly adapt to users' work needs for personalized scenarios.



## Intelligent natural gas operation platform



**Smart liquid delivery:** smart route planning for IoT tankers, navigation for hazardous goods, real-time tracking, and electronic handover.



**Demand forecast:** provide data support for distributors to procure resources, balance demand and supply balancing, and allocate resources.



**Smart gas delivery:** real-time monitoring of the operation status of pipeline networks and stations, as well as delivery balance dynamics and inventory resources.

Pipeline gas packages of nationwide delivery within seven days are traded online to satisfy customers' flexible gas consumption needs.

In addition, the company focuses on customers' diversified energy utilization needs, enhances its energy smart operation and maintenance capabilities, improves customers' energy utilization efficiency, and efficiently promotes low-carbon industrial development.

In 2022, the company further upgraded its smart operation and management platform:

- Smart energy efficiency engine based on the benchmarking analysis of industrial energy efficiency standard library
- Explore potentials in multiple aspects, such as energy efficiency improvement and operation and maintenance
- Formulate and track energy efficiency optimization plans to improve the operation and maintenance and management of energy facilities

## Digital Intelligent Heat Supply Management

The company has applied digital intelligence products for heat supply consisting of two modules: “few on duty” and “energy-saving operation”, to comprehensively improve energy management capacity and enhance the quality of energy supply while reducing customers' energy costs.

Enterprises applying

11

Energy consumption reduction

15%

### “Few on duty” module

- IoT remote control
- Online equipment management

### “Energy-saving operation” module

- Energy compliant with prediction
- Cloud-based command issuance



## Full Life Cycle Low Carbon Digital Intelligent Efficiency Management Solution

Through “energy and carbon digital platform + reclaimed water use + power services”, the company offers customers tailor-made full life-cycle low carbon digital intelligent efficiency management solutions. It provides functions such as online monitoring, smart diagnosis, management optimization, and effect evaluation while simultaneously optimizing the operation strategies of both supply and utilization and adopting advanced energy-saving and carbon-reducing technologies to improve the operation efficiency of equipment and facilities. Thus, it helps users reduce energy costs and carbon emissions.

A glass product company saves operating costs of

RMB 1.6 million/year

Reduce carbon emissions of about

4,000 tons

A silk technology company reduces energy costs by

5%



## Green Product and Low-carbon Development

With years of professional R&D and practical experiences in the energy field, ENN-NG provides customers with a variety of clean energy solutions adaptable to local conditions, including carbon-neutral LNG, hydrogen energy, photovoltaics, and biomass, with digital intelligence technology as the cornerstone of services. Apart from improving customers' utilization rate of renewable energy, saving energy, and reducing emissions, it maximizes the economic benefits of energy, improves the energy efficiency of society, and contributes to the green and low-carbon development of the value chain.

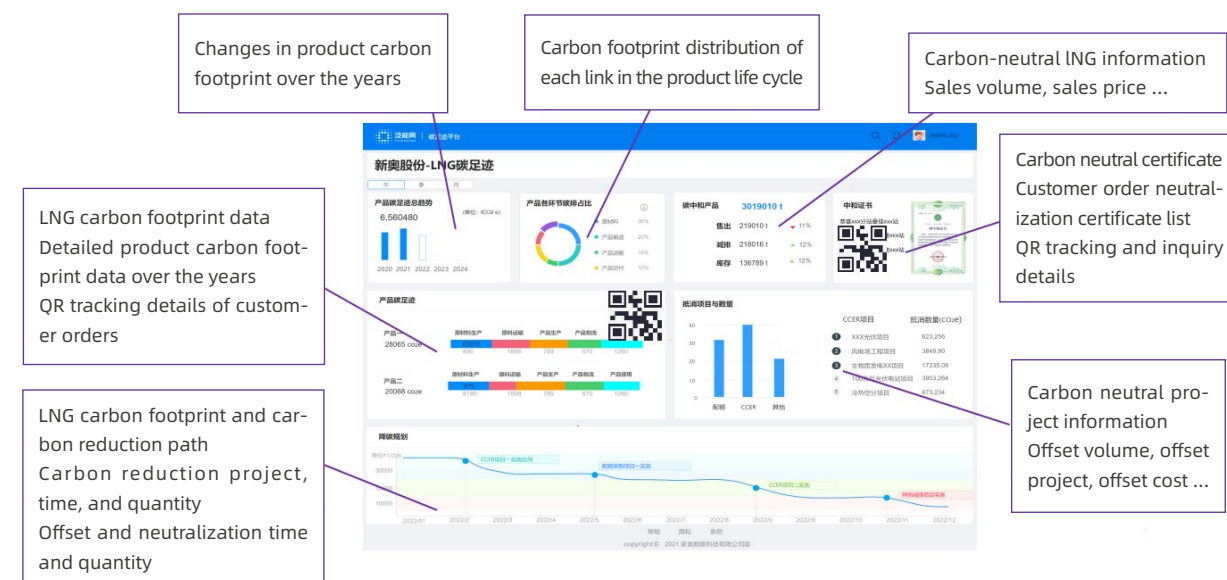
### Carbon-neutral LNG

We are deeply involved in the all-scenario ecology of natural gas, benchmarking with the industrial and international carbon-neutral energy products and the development of carbon-neutral LNG business, persistently promoting carbon accounting and emission reduction research of the entire LNG industrial chain, and actively exploring the carbon neutrality of LNG throughout its life cycle.

As the main leading unit, ENN-NG Zhoushan Terminal has participated in the preparation of the group standard *Carbon Neutral Evaluation Requirements for Natural Gas Products*. The first draft has been completed, which is expected to be reviewed and released in 2023.

### Carbon-neutral LNG Transaction Program

In 2022, the company made every effort to build a digital intelligence platform for the natural gas industry and drove the development of carbon-neutral LNG digital products. Initial testing of the product has been completed, and the online transaction function of carbon-neutral LNG is expected to go online in the first half of 2023. The product can deliver LNG products with full-footprint carbon labels and carbon-neutral LNG customization services to customers.



### ENN-NG and Cheniere Energy Fully Implemented the LNG Long-term Agreement

ENN-NG signed with Cheniere Energy the *Cooperation Framework Agreement to Address Climate Change*, which marked the start of their in-depth cooperation in the natural gas fields, such as LNG cargo carbon labeling, methane emission control, carbon-neutral LNG cargo, and carbon sequestration project investment.

In July 2022, the first LNG shipment of this corporation between the two companies was loaded and delivered in Port of Sabine, Texas, USA, as scheduled. Both sides agreed that this cooperation model was innovative and was committed to continuing to tap the cooperation potential in more extensive dimensions.

### Hydrogen Energy

ENN-NG has been actively laying out the entire industrial chain of hydrogen energy and continuously investing in R&D. The company has achieved some results in hydrogen production process research and production, hydrogen storage and transportation, as well as hydrogen energy project engineering construction.

#### Technology

With technological R&D, process design, and equipment manufacturing as traction, the company has formed efficient hydrogen production solutions of different scales and processes. We are actively promoting the accumulation and application of hydrogen production technology and have 14 patented technologies by the end of 2022.

- Hydrogen production with fossil raw materials

The first large scale non-catalytic partial oxidation hydrogen cracking technology for natural gas to be commercialised in China.

Breakthrough in natural gas catalytic conversion and steam reforming hydrogen production technology.

- Hydrogen production with industrial by-products

Coke oven gas to hydrogen technology has been applied in many projects

- Hydrogen production with electrolysis of water

In strategic cooperation with the 718th Research Institute of CSIC, the company has built the leading hydrogen production with electrolysis of water project in China.



Projects

The company has experience in more than 40 hydrogen production projects, covering all mainstream hydrogen production routes, including hydrogen production with coke-oven gas, hydrogen production with natural gas, and hydrogen production with electrolysis of water.

Shanxi JinYE Coke  
Oven Gas Comprehen-  
sive Utilization Project

- Use coke oven gas to produce hydrogen and LNG to promote the low-carbon application.
- Annual production capacity of 148,800 tons of LNG and 16 million cubic meters of hydrogen.



Huafeng Hydrogena-  
tion Integrated Energy  
Service Area Project

- Four-in-one integrated energy station of “hydrogen, electricity, oil, and gas”.
- Integrated delivery of “core technology + plan-ning and design + integrated equipment + EPC construction”.



Hydrogen blending

The company is exploring technologies in the field of natural gas blending to provide customers with integrated energy solutions such as hydrogen and natural gas.

- Research on hydrogen blending technolo-gy for natural gas

Research has been conducted on HCNG tech-nology at home and abroad, and a multi-sce-nario R&D program of hydrogen mixing has been completed.

- Hydrogen blending project in Jiangsu

10% of industrial by-product hydrogen was mixed into the natural gas pipeline of the local industrial park, which is ex-pected to reduce carbon emission by 48,600 tons per year for the customer.

Photovoltaics

Supported by digital intelligence, ENN-NG is dedicated to providing customers with photovoltaic energy supply solutions to maximize the economic benefits of energy while improving customers’ utilization rate of renewable energy, saving energy, and reducing emission reduction, thus contributing to green low-carbon development.

1,000+ MW

Cumulative annual contract size

850 MW

Investment and evaluation scale

430 MW

Construction and grid-con-  
nected scale

Photovoltaic technology application projects

Project name	Project introduction		
 Photovoltaic power plant project of a food factory	ENN Energy work with a food company in Guangdong Province on natural gas supply, central heating, and PV projects. We use a digital intelligence platform to realise digital intelligence-based operation and comprehensive energy management for the factory and built it into a benchmark low-carbon factory in the food industry.		
	Gas and heat supply capacity	Standard coal saved	
	116 million kWh/year	44,000 tons	
	Carbon emission reduction	Nitrogen oxide reduction	
	117,000 tons	283,000 tons	
 Distributed photovoltaic project for a dairy company in Hubei	Leveraging its digital intelligence platform, ENN Energy provided boiler hosting and operation services to a dairy company in Hubei Province. Through a series of energy-saving transformation measures and operation and maintenance management, we achieved energy conservation and consumption reduction.		
	Installed capacity of photovoltaics	Annual power generation capacity	Carbon emission reduction
	2.5 MW	2.4 million kWh	2,000 tons
 Battery plant PV project in Liaoning	Energy-side services provided by this project include market-oriented power trading, bill management, a smart energy management platform, distributed photovoltaics(PV), and green factory certification in order to satisfy the client's demand for efficient and effective management of their energy resources. With ENN Energy's support, the client has been included in the sixth group of Liaoning's green manufacturers.		
	Installed capacity of photovoltaics	Carbon emission reduction	
	4 MW	5,000 tons per year	





## Biomass

With more than ten years in biomass energy supply services, the company is experienced in biomass fuel collection and storage management, technology design, equipment selection, and investment operation. According to the policy requirements and resource endowment of utilizing biomass resources in different regions, we provide customers with customized technical solutions such as biomass direct combustion, semi-gasification, and full gasification to solve their multi-scenario application needs.

Number of biomass projects

11

Installed capacity

431 MW

Energy supply

935,800 tons

### Hainan Yangpu Low Carbon Park

Yangpu Economic Development Zone contributes about 40% of the industrial output of Hainan Province. With the continuous growth of industrial projects under construction and going into operation, there is a tremendous demand for electricity and steam energy.

In response to the park's issues, such as the low utilization rate of energy facilities and its inability to satisfy the new energy demand of customers, the company provides green steam services for the park's customers, comprehensively deploying various energy solutions such as biomass and photovoltaics to realize the stepped utilization of steam at different pressures and temperatures.

Steam production capacity

1.9 million tons

Biomass usage

800,000 tons

Equivalent to standard coal

267,000 tons

Annual carbon emission reduction

700,000 tons

## Energy Storage

In 2022, the company increased the infrastructure construction of energy storage projects, invested more in energy storage facilities, complemented the power distribution network, and carried out dynamic regulation through energy storage. Adopting the "clean energy + energy storage" model, it built a new regional power system, enhancing the power network's ability to consume renewable energy and promoting low-carbon energy transformation.

Energy storage project presentation

Project name

Project scale

Project introduction



Energy storage  
project of Anhui Xu-  
ancheng incremental  
power distribution  
network

2 MWh

By providing additional energy storage and multi-station integrated extension services, this project created the first low-carbon park incremental power distribution network with integrated source-grid-load-storage in China. Meanwhile, it has further improved the power network's stability and reduced electricity costs for customers by building the energy storage power station.

Project investment

RMB 4+ million

Cumulative discharge

917,000kWh

Electricity cost saved

RMB 55.5 million



Energy storage  
project of Huanghua  
International Airport

2 MWh

This project adopted the lithium iron phosphate energy storage system to meet the demand of regional energy consumption and the power network's peak-load shifting demand, relieve the pressure of the power network's peak load regulation pressure, and optimize the allocation of power resources. Together with the energy supply system of multiple devices, such as direct-fired engines and electric cooling units, and the smart energy management platform, it can effectively reduce energy consumption and carbon emission.

Energy saving rate

33 %

Reduction of  
standard coal use

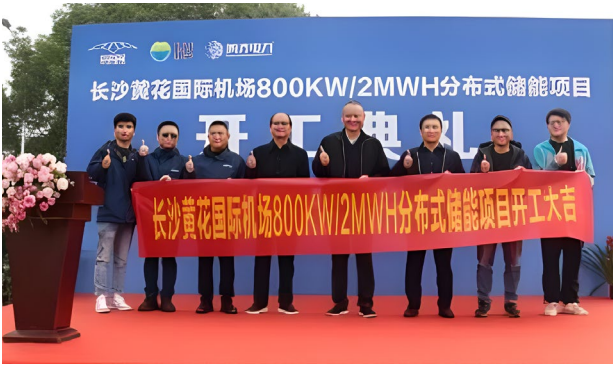
2,900 tons

Carbon emission  
reduction

7,000 tons



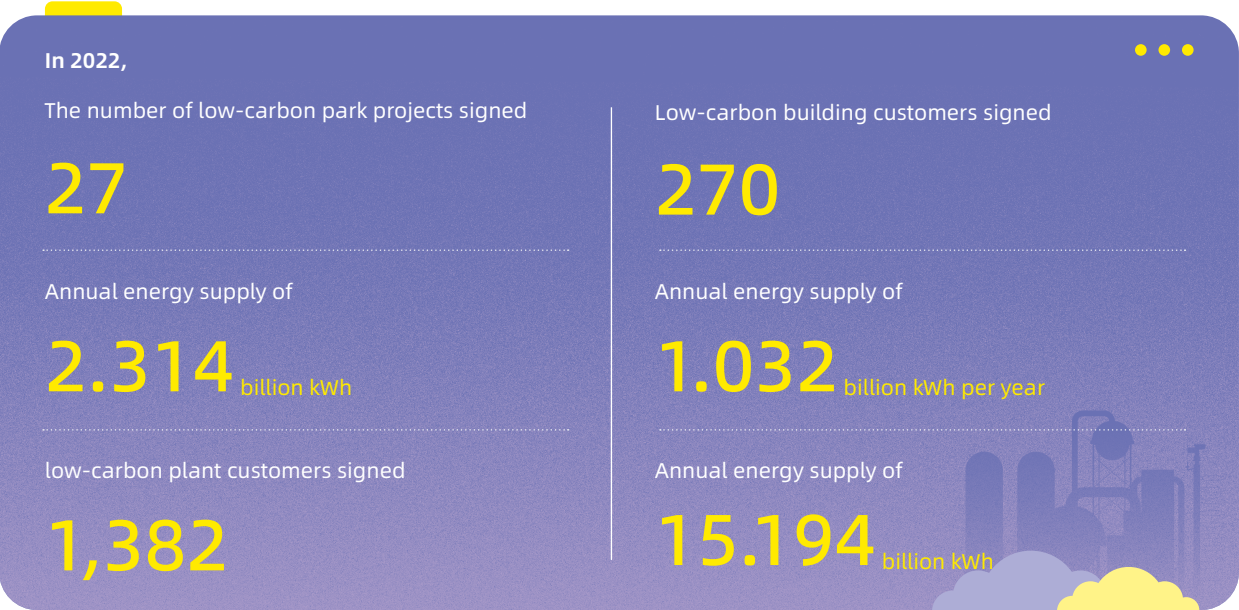
• Energy storage project of the incremental power distribution network



• Launch ceremony of the energy storage project at Huanghua Airport

## Integrated Energy Services

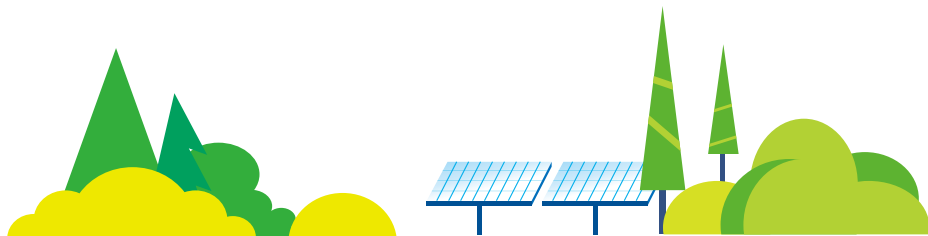
Based on the needs of corporate customers and parks, with the development of the entire value chain of energy as the core, ENN-NG creates smart low-carbon solutions tailored to local conditions that prioritize clean energy and has multiple energy sources as complements. It has become a vital force in the implementation of the “carbon peaking and carbon neutrality” blueprint of parks.



## Zero-carbon Demonstration Project of the Civic Service Center of Langfang Airport Economic Zone, Hebei

The Civic Service Center of Langfang Airport Economic Zone is the first iconic urban complex put into use in Langfang Airport Economic Zone. It performs various functions such as government services, planning and exhibition, conference holding, and corporate operations. ENN Energy has invested in ground source heat pumps, waste heat recovery heat pumps, electric cooling units, distributed PVs, and air source heat pumps powered by green electricity, which can satisfy the needs of domestic hot water, cooling in summers, winter foundation, and peak regulation and heating in the

business area. The roof of the entire Civic Service Center and the promenade are equipped with PV panels, and the micro wind power system has been built by using the PV-shielded area on the north side in combination with the resource conditions of the ventilation corridors. At the same time, the company has customized a zero-carbon solution for the Civic Service Center relying on its advanced digital intelligence technology fruits and operational experience, aiming to achieve net-zero carbon emissions during the usage of the Civic Service Center.



## Resilient Ecological Value Chain with Digital Intelligence

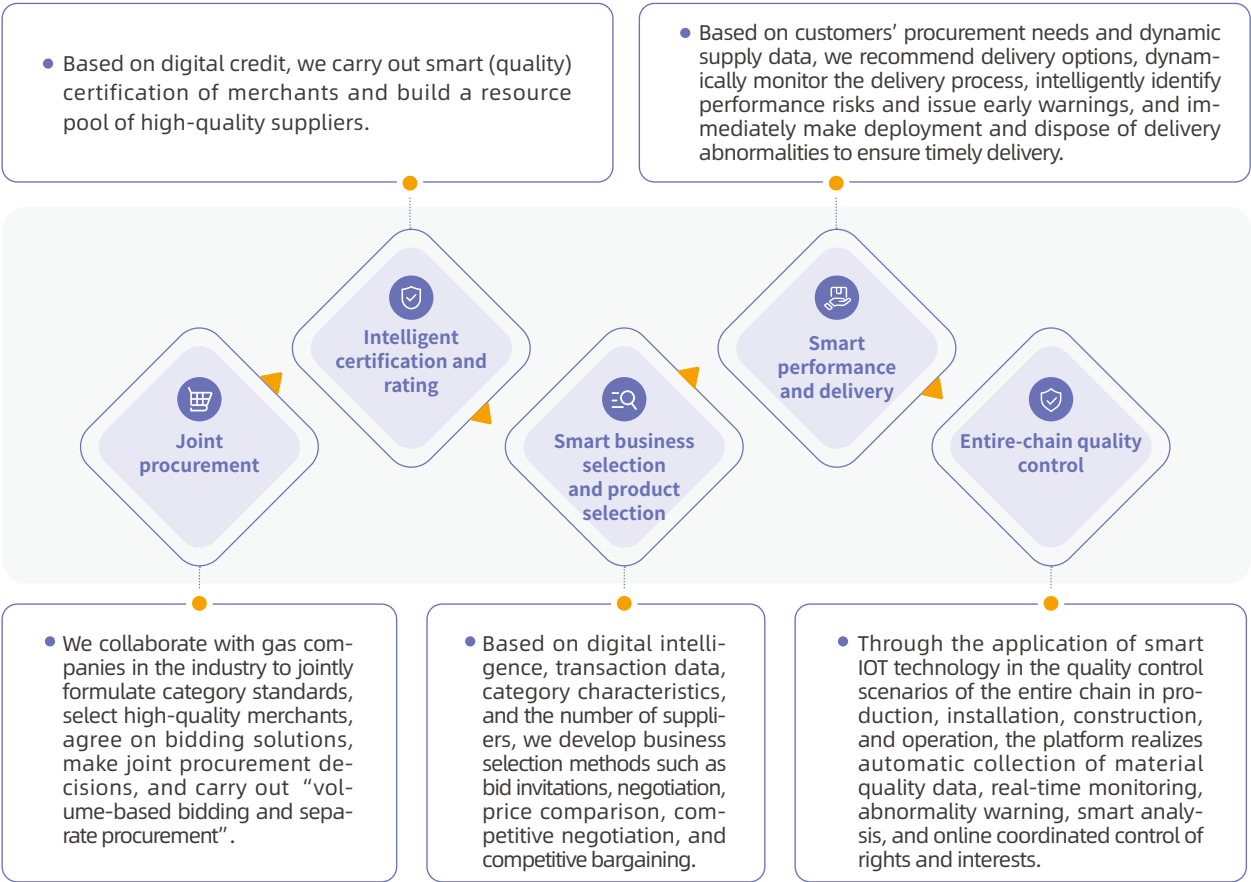
ENN-NG integrates responsible procurement into supply chain management, continuously improves the supply chain management system, and optimizes the supplier governance structure. Through the construction of digital intelligence and management capabilities, we will work together to build a green, environmentally friendly, healthy, and sustainable value chain, create a benign competitive environment for suppliers, maintain the stability of the supply chain, and drive sustainable development.

## Digital Intelligence Supply Chain Management

In 2022, the digital intelligence procurement platform focused on building a supply chain ecological platform centered around the quality control of the entire chain, featuring joint procurement and covering all scenarios of procurement. In November 2022, the platform released the rules of merchant certification and factory inspection to standardize the certification process for merchants to join the platform as well as procurement and operation.



Digital intelligence procurement platform





Multiple measures have been taken to reduce the material procurement risks:

- Released three documents, such as *Material Procurement Management Regulations*, to regulate the compa-ny's management process of material procurement and quality;
- Released the monthly report on procurement, the quarterly report on technological quality, and the quarterly report on warehousing to summarize and inform the problems found and suggest solutions;
- Continuously reviewed and revised rules such as material procurement rules, strengthened personnel train-ing, and further reduced the management risk of material procurement.

Carried Out Training and Inspection on Hidden Problems in Material Management

In March 2022, the company organized training sessions on material procurement, quality inspection, and storage management for important material managers. More than 800 people were invited to attend the training online.

From July to October 2022, several inspections were carried out on material management, and work was done to rectify hidden problems. Responsibility was identified, and punishment was given as responsible persons for hidden problems in material management of 15 enterprises were admonished and talked to, personnel was transferred to other positions, and their performance-based reward was deducted.

Supplier Classification Management

The company reasonably classifies suppliers according to the material properties and annual procurement volume and di-vides them into three categories of Class A, B, and C suppliers.

Material supplier classification and Classification of material suppliers and corresponding data

Type	Definition	Quantity
<div>Class A</div> <div>Supplier (key)</div>	Suppliers of materials that constitute the main part or key part of the final product and directly affect the use or safety performance of the final product; or suppliers of materials that account for 60% of the total annual procurement amount.	129
<div>Class B</div> <div>Suppliers (significant)</div>	Suppliers of materials that constitute secondary parts or non-key parts of the final product and have a rela-tively great impact on the quality of the final product; or suppliers of materials that account for 10%-30% of the total annual procurement amount.	872
<div>Class C</div> <div>Suppliers (general)</div>	Suppliers of auxiliary materials that have little im-pact on the quality of the final product; or suppliers of materials that account for less than 10% of the total annual procurement amount.	2,950

Resident suppliers in mainland China

3,951

Percentage of procurement amount of top ten material purchasers

45%

Supplier ESG Risk Determination and Management

We continuously conduct ESG risk assessment and determination before supplier admission and identify potential risks in the entire material supply process, including material procurement, supplier evaluation, supplier communication, and ma-terial storage. Meanwhile, we set up corresponding control measures:

- List suppliers with major violations, breach of contract, breach of trust and high ESG risk behavior on the list of high-risk suppliers, and regularly report the list of ESG high-risk centralized procurement projects to the board of directors;
- Improve the performance of such suppliers in ESG through multi-party evaluation and rectification inspection;
- Blackout suppliers who still have high risks after rectification, and reduce the incidence of major violations in the supply chain.

Supplier access management

The company asks its suppliers to comply with national laws and regulations in the manufacturing process, pay attention to environmental protection, and protect and safeguard their employees' legal rights and interests as well as social wel-fare.

- All suppliers are required to comply with the *Code of Conduct on Corporate Social Responsibility for Suppliers* and the *Health, Safety, and Environment (HSE) Agreement for Suppliers*. Meanwhile, they have to sign the *Commitment of Integrity and Self-discipline*, including specific requirements such as preventing the use of child labor, anti-discrimination, health and safety, working environment and anti-corruption.
- Suppliers' certifications of qualification systems (such as ISO 14001, ISO 45001, ISO 9001, etc.) are included in the assessment criteria so that suppli-ers with the relevant certifications can obtain higher access scores.
- The comprehensive strength certification stage clearly requires suppliers to submit quality management system, occupational health and safety system, and environ-mental management system certification materials, as well as the corresponding certifi-cates made mandatory by the state. Meanwhile, it acquires the relevant qualifications of manufacturers through the tripartite website and con-ducts automatic verification.

The company's risk department will monitor the entire procurement process and provide designated complaint channels to ensure that the procurement process is compliant.

Proportion of approved suppliers with the qualification of the environmental management system

>90 %

Proportion of approved suppliers with occupational health certifica-tion

>80 %

Signing rate of the *Commitment of Integri-ty and Self-discipline*

100 %

## Supplier audit and evaluation

With the help of the digital intelligent procurement platform, we can take multiple measures to effectively manage the entire process of supplier access, management, assessment, and withdrawal:

- Conduct at least one comprehensive evaluation and performance assessment of Class A and B suppliers every year;
- Carry out irregular online, on-site, and surprise inspections and third-party inspections and timely disclose assessment results;
- Rank the total evaluation score of suppliers supplying similar materials and eliminate the supplier in the last place;
- Establish a “supplier blacklist” management mechanism, and suppliers suspected of falsifying and malicious operation in the certification or factory inspection processes will be “blacklisted” and publicized.

Number of suppliers  
for factory inspection

80

Number of suppliers  
inspected on site

54

Batches for third-party verification

200+

## Supplier violation rectification and withdrawal mechanism

The company is “zero tolerant” towards supplier violations and carries out standardized management of supplier violations and subsequent handling processes.

- Release documents, including supplier violation management rules and complaint management rules, to guide management.
- Once a supplier is found to have serious violations during the review process, the supplier will be rectified, frozen, fined, required to make financial compensation, or blacklisted pursuant to management regulations.
- Dynamically manage suppliers on the platform, and suppliers who fail to meet the requirements of qualified evaluation after assessment and evaluation are urged to make improvements. A three-month improvement period will be set, and re-evaluation will be done at the end of the improvement period.
- Suppliers who fail to meet the expectation after the rectification will be dismissed.

## Grow Together with Suppliers

We grow and develop alongside our suppliers with an open, cooperative, equal, and reciprocal mentality. In 2022, the company introduced all suppliers to the digital intelligence procurement platform and trained them through online methods to help them complete the transformation of digital intelligence procurement better and faster.

### Assist Suppliers in Improving Product Quality Management

In July 2022, a team from ENN Energy visited and exchanged with an equipment supplier in Chongqing. They conducted comprehensive on-site communication and confirmation on the key links of the gas equipment manufacturing process, quality control, finished product testing, laboratory management, and raw material quality control and made suggestions for improving product tracking management and raw material inspection batches to help the supplier improve product quality management.



- Supplier on-site communication and site visit

## Green procurement

In 2022, the company issued the *Notice on ENN Sustainable Development Strategy*, incorporating indicators related to supplier sustainability into the strategic objectives, requiring suppliers to choose recyclable packaging materials and energy-saving and environmentally friendly products, and imposing carbon emission targets on suppliers to promote green development in the supply chain.

### Use of Steel Pipes to Reduce Environmental Pollution from Coatings

In 2022, 37 member companies, including Changsha Xin'ao, Zhaoqing Xin'ao, and Zhanjiang ENN, used 2.34 million meters of FBE anti-corrosion steel pipes for their overhead transmission and distribution pipelines. The on-site coating of traditional overhead steel pipes causes environmental pollution due to paint depletion. In comparison, FBE steel pipe coating is done inside the closed special equipment, which increases the utilization rate of paint from 50% to 95% and can recover the diffused powder through the recycling system, thus significantly reducing the environmental pollution.



## Joint Effort for a Digitalized Tomorrow

ENN-NG insists on innovation and research, continues to improve the innovation management system, and strengthens the management of intellectual property protection. At the same time, we also actively engage in industrial exchange activities, carry out diversified industry-university-research cooperation, and devote ourselves to promoting industrial development.

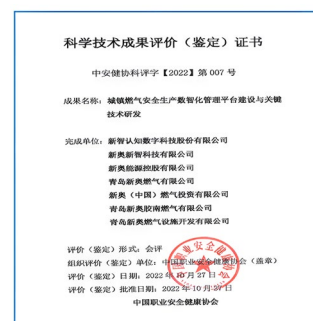
### Innovative R&D

Through advanced technology R&D and product innovation, ENN-NG continues to seize new industrial opportunities. In February 2022, the company further revised and released the *Science and Technology Innovation Incentive Scheme of ENN Natural Gas Co., Ltd.* to motivate our employees in science and technology innovation and accelerate technology R&D and innovation value creation.

In 2022, the company explored the application of methanol fuel in Zhejiang on the basis of a thorough study of the alcohol-based fuel market and completed the first renovation project of printing and dyeing boilers, successfully realizing the substitution of methanol fuel. This has further expanded the supply categories and scale of energy products, promoting the diversified development of the methanol industry.

### Construction and Key Technology R&D of Digital Intelligent Management Platform for the Safe Production of City Gas

It has passed the appraisal of the China Occupational Safety and Health Association: overall, it has reached the advanced international level. Its big data for gas safety, which separates perceptual intelligence and cognitive intelligence, and the artificial intelligence algorithm technology are leading internationally.



- Obtained scientific and technological achievement evaluation certificate

### Intellectual Property Rights

ENN-NG attaches great importance to the protection of intellectual property rights and patents, complies with the management process to regulate intellectual properties, such as patents and trademarks in the intellectual property system, and strengthens the ability to prevent and control intellectual property risks. The company also pays attention to the quality requirements of the acquisition of intellectual property rights, requiring quality control throughout the entire process, from patent mining, searching, and commissioning to final draft submission. Meanwhile, it employs professionals to provide intellectual property protection services for technology R&D and regularly organizes corporate experts to offer guidance in the process of related technological innovation work. At the same time, we have actively developed IP management system products to store key data of the entire life cycle of IP creation, management, operation, and risks into the platform. We set up the appraisal and award mechanism for applications of outstanding patents, standards, and papers to encourage innovation culture construction within the company.

During the reporting period  
the company did not have any intellectual property  
infringement incidents

### A National Patent Has Been Secured for the Steel Silo's Four-corridor External Circulation Device

In order to improve the local environmental quality and prevent dust pollution, Daqing Boyuan, a subsidiary of ENN Energy, re-located two large steel silos with a capacity of 63,000 cubic meters about 200 meters away from the plant site to meet the fly ash storage needs of 2x480t/h units for six months. The installation of steel silo ash storage warehouses improves the local environmental quality, prevents air and groundwater pollution accidents caused by improper storage of solid waste, and contributes to the development of the local green economy. The device has obtained the national utility model patent certificate and is an advanced technology in the industry.



- Patent certificate of steel silo's four-corridor external circulation device

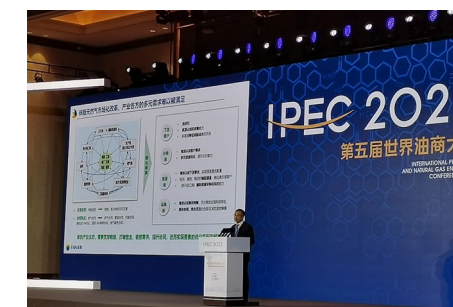
### Industrial Exchanges

ENN actively participates in various industrial exchange activities. Through keynote speeches, round-table discussions, and online seminars, it facilitates cooperation and communication between ENN and its many ecological partners to establish a good brand image in the industry.

### ENN-NG Attended the International Petroleum and Natural Gas Enterprises Conference and Worked Together to Create a Smart Ecology for the Natural Gas Industry

In August 2022, the 5th International Petroleum and Natural Gas Enterprises Conference was inaugurated in Zhoushan, Zhejiang Province. ENN-NG President Zheng Hongtao attended the conference and delivered a keynote speech, sharing ENN-NG's exploration and practice in constructing the Internet platform for the natural gas industry and discussing the future of the petroleum and gas industry with the participants.

ENN-NG expounded on the concept of industrial Internet and introduced to the participants the Internet platform for the natural gas industry, with examples of smart transactions, smart delivery, smart operation, and other functions. It proposed a development initiative to build a common platform, create a common ecosystem, and share value with all parties in the natural gas ecosystem.



## Gastech Exhibition & Conference

In September 2022, Mr. Zheng Hongtao, President of ENN-NG, attended the Gastech Exhibition & Conference in Milan, Italy, and delivered a keynote speech. At the conference, he introduced the company's business development and experience accumulated in the natural gas field and presented the company's LNG industry layout throughout the entire industry chain, including production, storage and transportation, trade, and services.



• Gastech International Natural Gas Conference Onsite

## Innovative Carbon Reduction Mechanism to Drive ESG Development

In his keynote speech at the 2022 ESG Global Leaders Summit on "Chinese Enterprises' Innovative Practices to Enhance ESG Competitiveness", Mr. Wang Yuluo, Chairman of ENN-NG, proposed to drive ESG development through innovative carbon reduction mechanisms, using low-carbon consumption to drive low-carbon production and low-carbon energy development. Carbon plans, carbon footprinting, and carbon trading are needed to address ESG issues and achieve the goal of sustainable human development for both enterprises and the public.



• 2022 ESG Global Leaders Summit • Keynote speech by Chairman of ENN-EG

## Industry-university-research Cooperation

ENN-NG continues to deepen the industry-university-research integration, conduct technical exchanges and cooperation with universities and research institutes, integrate the scientific and technological strengths and technical support of enterprises and schools, tackle difficulties together, and build cooperative relationships between industry, university, and research.

## Zhoushan Terminal and Zhejiang Ocean University Cooperated on the Project of Constructing the Hazardous Chemical Monitoring Platform

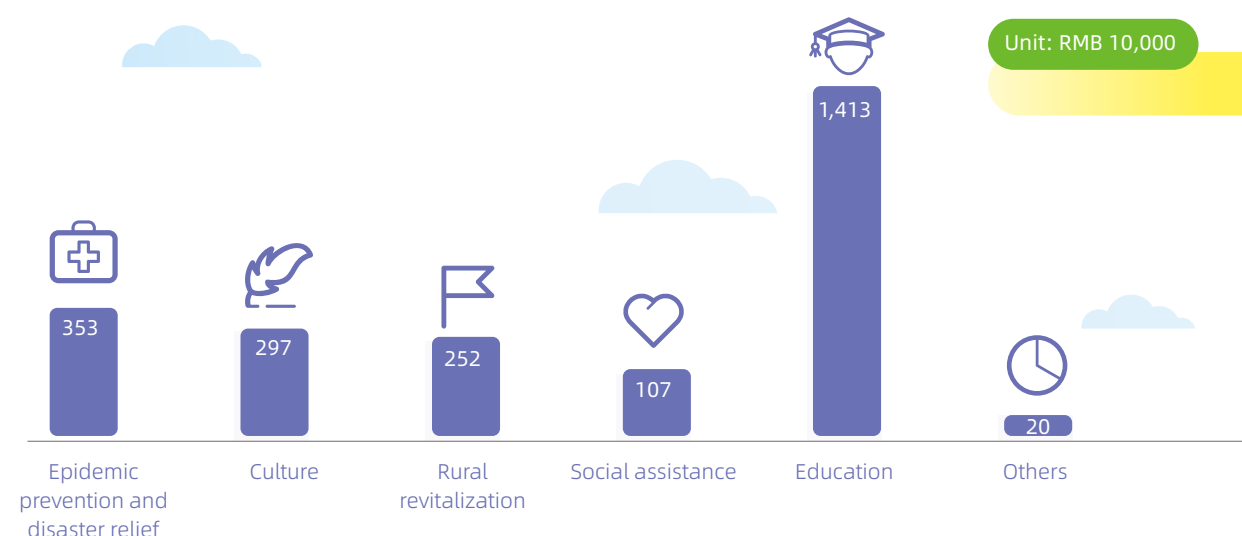
The company cooperated with Zhejiang Ocean University to complete the "R&D of Smart Monitoring, Warning, Emergency Decision-making System for Hazardous Chemical Production Accidents". The project used technologies such as smart video monitoring, multi-data aggregation, big data, artificial intelligence, cloud computing, and complex system modeling to develop and integrate smart monitoring of dangerous operations, build a smart system platform, and realize unattended shipment of LNG tanker loading and smart identification and early warning of loading process violations so as to intelligently control hazardous chemicals enterprises in the whole area and in the whole time. It improves the safety of the transmission and distribution of hazardous chemicals and the production system, lowers losses from accidents, and improves emergency response and accident rescue capability. With significant social and economic benefits, it is worth promoting.

# Social Engagement and Corporate Social Responsibilities

Adhering to the concept of "creating value for the society", ENN-NG shoulders its missions and responsibilities, shares the fruits of development with society, and earnestly fulfills its corporate social responsibility.

The company has carried out a number of public welfare charity projects with green projects, school construction projects, inspirational projects, and quality projects as the core and actively participated in rural revitalization initiatives.

ENN-NG and its subsidiaries have invested **RMB 24.42 million** in public welfare and charity projects



## Empowering Education with the Spirit of "Teaching How to Fish" to Promote High-quality Development

As a private enterprise that has developed and grown during China's reform and opening up, ENN often thinks about its root of development and is always grateful. It always considers strengthening the country and enriching the people as its own mission, gives back to society with due diligence, and strives to fulfill its corporate social responsibility.

### Consolidate the foundation, lay the groundwork for education

The "ENN-Gardener Program" has been donating RMB one million per year to each of Bazhou No.4 Middle School and No.8 Middle School for ten consecutive years to strengthen the schools' teaching reform and inspire teachers. With the support of the Gardener Program, the two schools selected sent more than 170 teachers for training throughout the year. After returning to the schools, the teachers participating in the training carried out six secondary training programs to broaden the horizons of more teachers in the schools. With the support of high-quality educational resources, Bazhou No. 4 Middle School has gradually increased its college entrance rate and entered the ranks of model high schools in Hebei Province; Bazhou No.8 Middle School, as a rural middle school, has a college entrance rate of 90% and has won the honorary title of Advanced Collective of the national education system.



## “Gather Love and Paint Children’s Dreams” Campus Fundraising and Assistance Activity

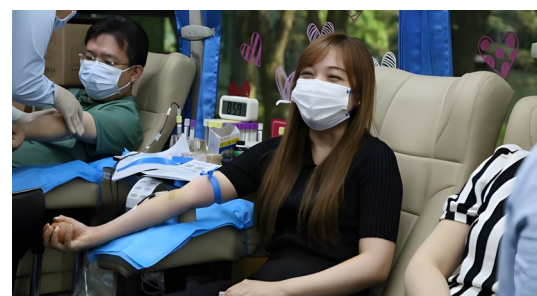
In October 2022, ENN-NG Chinese Communist Youth League carried out the “Gather Love and Paint Children’s Dreams” campus fundraising and assistance activity. We visited Langfang Recruitment and Language Training School and sent more than 200 books and stuffed toys to the lovely children.



- “Gather Love and Paint Children’s Dreams” assistance site in Recruitment and Language Training School

## ENN-NG Held a Voluntary Blood Donation Activity

On the occasion of World Blood Donor Day (June 14), a total of 126 employees of ENN-NG participated in the voluntary blood donation activity, donating a total of 49,200 millimeters of blood.



- Voluntary blood donation activity site

## “Gather Green Glimmer and Illuminate Beautiful Countryside” ENN Charity Day

In September 2022, ENN-NG Chinese Communist Youth League carried out the “Gather Green Glimmer and Illuminate Beautiful Countryside” ENN Charity Day in Langfang of Hebei, Hangzhou of Zhejiang, and Dalad Banner of Inner Mongolia. More than 50 “Rainbow Flower” volunteers from ENN-NG went into communities and set up donation tables to collect books for children. At the same time, volunteers also promoted gas safety, energy-saving, and low-carbon knowledge, distributing promotional materials such as gas safety manuals and gas leak handling procedures; they answered questions concerning gas safety and shared energy-saving tips for users. Meanwhile, the company also launched a book collection initiative, which received positive responses from more than 400 employees and collected over 2,000 books.



- The scene of the “Rainbow Flower” community event



- Community Events Site

## Outlook

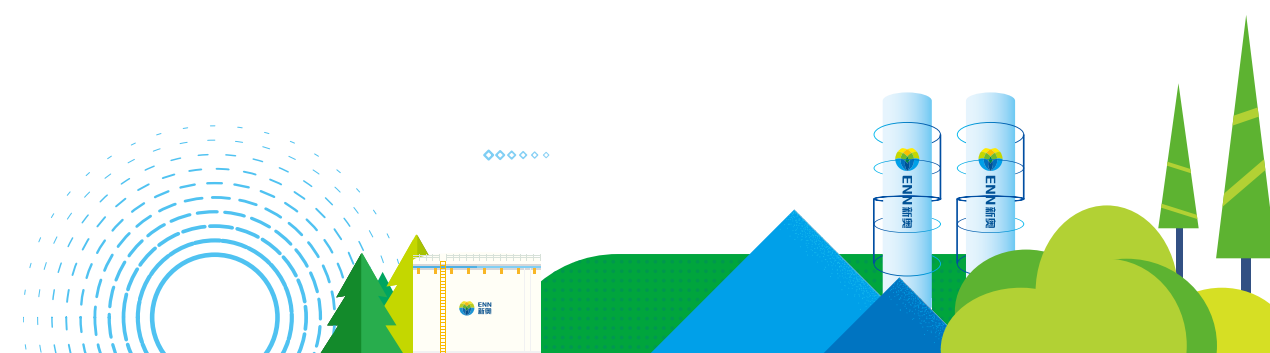


Under the complicated international energy situation, the transformation of the domestic energy structure is inevitable. In the midst of the national “carbon peaking and carbon neutrality” goals and the frequent occurrence of extreme climate disasters, ENN-NG will continue to build a stable, healthy, and low-carbon energy system by developing innovative businesses and shouldering its social responsibility.

In 2023, ENN-NG will steadily and actively implement every sustainable development target. In terms of safety, the company will implement the production safety responsibility system for all employees, reinforce the defense line for safe production, and establish a good safety culture. In terms of low carbon, the company will actively carry out actions to address climate change, implement the *Green Action 2030 - ENN Journey to Net Zero* and the Net Zero Carbon Emission Roadmap, and guide the work to proceed in an orderly manner in accordance with the low carbon development strategies formulated by each business segment. Regarding the energy business, established in the all-scenario of natural gas, the company will promote intelligence with IoT, upgrade the industry with intelligence, continuously consolidate the industrial foundation, and steadily advance the strategy of “smart ecological operator in natural gas industry”.

In 2023, ENN-NG will actively practice its corporate social responsibility and continue to drive the sustainable development of the industry and society. Internally, we will earnestly protect the legitimate rights and interests of our employees, build and improve the talent management system and talent training mechanism, and ceaselessly stimulate the vitality of our employees and team cohesiveness. Externally, we will take advantage of our platform to actively participate in community welfare causes, carry out community welfare activities, promote the healthy development of the community, help protect the ecological environment and land, and continue to give back to society through practical actions.

ENN-NG will continue to adhere to the company’s sustainable development strategy and plan, uphold the brand promise of “Be Good To Future, With My Best Energy”, take into account the new international and domestic situation and policies, and coordinate innovation transformation with steady development. We will work together with all stakeholders to promote the company’s sustainable and healthy development and create a smart ecological future for the natural gas industry.



Appendix

ESG Performance Indicators\*

Name of Indicator	Unit	2022	2021	2020
Total Quantity of Sewage Discharged	10,000 tons	159.13	171.89	144.23
Total Sulfur Dioxide Emissions	Ton	92.27	60.06	706.25
Total Nitrogen Oxide Emissions	Ton	282.33	217.58	945.38
Total Soot Emissions	Ton	32.36	17.62	58.45
Total Quantity of Hazardous Wastes Discharged <sup>1</sup>	Ton	5,247.90	4,317.15	583.54
Discharge Density of Hazardous Wastes	Ton/billion RMB of revenue	34.04	37.24	6.62
Total Quantity of Non-Hazardous Wastes Discharged <sup>2</sup>	Ton	1,851,743.31	2,120,315.94	748,004.34
Discharge Density of Non-Hazardous Wastes	Ton/billion RMB of revenue	12,011.14	18,291.26	8,490.52
Consumption of Coal Fired	10,000 tons	89.89	99.76	307.22
Diesel Oil Consumption	10,000 L	591.72	682.65	202.66
Gasoline Consumption	10,000 L	783.56	722.33	444.99
Natural Gas Consumption	10,000 cubic meters	1,842.14	1,422.04	1,377.28
Consumption of Purchased Power	10,000 kWh	88,756.10	82,260.84	81,120.00
Comprehensive Energy Consumption	10,000 tons standard coals	242.87	229.45	255.66
Intensity of Consumption comprehensive Energy	10,000 tons standard coals/ billion RMB of revenue	1.58	2.00	2.90
Total Water Consumption	10,000 tons	1,308.18	1,371.34	1,433.32
Water Consumption Density	Ton/billion RMB of revenue	8.49	11.83	16.27
Scope I: Direct GHG Emissions <sup>3</sup>	10,000 tons CO <sub>2</sub> equivalent	391.83	428.47	431.49
Intensity of Direct GHG Emissions (By Revenue)	10,000 tons CO <sub>2</sub> equivalent/ billion RMB of revenue	2.54	3.70	4.90
Intensity of Direct GHG Emissions (By Gas Sales)	10,000 tons CO <sub>2</sub> equivalent/10,000 cubic meters of natural gas sales	10.79	11.52	19.66
Scope II: Indirect GHG Emissions <sup>4</sup>	10,000 tons CO <sub>2</sub> equivalent	57.33	42.58	35.91
Intensity of Indirect GHG Emissions (By Revenue)	10,000 tons CO <sub>2</sub> equivalent/ billion RMB of revenue	0.37	0.37	0.41

\* In 2022, we further improve ESG-related indicators and statistical methods while updating relevant data for 2021 and 2020 accordingly.

<sup>1</sup> The total quantity of hazardous wastes discharged includes the waste machine oil, waste odorant barrels, packaging of waste and old chemicals generated by the headquarters and affiliates of ENN-NG during business operation, and scrapped circuit boards and other hazardous wastes generated during the manufacturing and maintenance of gas meters in 2022.

<sup>2</sup> The total quantity of non-hazardous wastes discharged includes the domestic garbage and kitchen wastes generated by the headquarters and affiliates of ENN-NG during business operation, and non-hazardous wastes generated during the manufacturing and maintenance of gas meters in 2022.

<sup>3</sup> Direct greenhouse gas emissions (Scope I) cover the emissions directly arising from energy (coal, diesel, gasoline and natural gas) consumed by the headquarters and affiliates of ENN-NG during business operation.

Name of Indicator	Unit	2022	2021	2020
Intensity of Indirect GHG Emissions (By Gas Sales)	10,000 tons CO <sub>2</sub> equivalent/10,000 cubic meters of natural gas sales	1.58	1.14	1.64
Scope I and II GHG Emissions	10,000 tons CO <sub>2</sub> equivalent	449.15	471.05	467.40
Intensity of Scope I and II GHG Emission (By Revenue)	10,000 tons CO <sub>2</sub> equivalent/ billion RMB of revenue	2.91	4.06	5.31
Intensity of Scope I and II GHG Emission (By Gas Sales)	10,000 tons CO <sub>2</sub> equivalent/10,000 cubic meters of natural gas sales	12.37	12.66	21.29
Natural Gas Production (Scope III) <sup>5</sup>	10,000 tons CO <sub>2</sub> equivalent	1,045.19	1,123.36	/
Upstream and Downstream Transportation (Scope III)	10,000 tons CO <sub>2</sub> equivalent	204.06	157.61	/
Use of Sold Natural Gas (Scope III)	10,000 tons CO <sub>2</sub> equivalent	5,820.79	5,467.12	/
Employee Travel and Commuting (Scope III)	10,000 tons CO <sub>2</sub> equivalent	2.09	2.25	/
Total GHG Emissions (Scope I, II, and III)	10,000 tons CO <sub>2</sub> equivalent	7,521.28	7,222.19	/
Number of employees	Persons	38,967	39,474	39,282
Number of male employees	Persons	28,873	29,933	29,656
Number of female employees	Persons	10,094	9,541	9,626
Number of employees under 30 years old	Persons	9,115	9,290	12,047
Number of employees aged 30-50	Persons	25,928	25,832	24,134
Number of employees over 50 years old	Persons	3,924	4,352	3,101
Number of senior management staff	Persons	1,137	1,222	1,229
Number of staff at ordinary level	Persons	3,498	3,716	3,488
Number of middle management staff	Persons	34,332	34,536	34,565
Number of employees engaged in Hong Kong and overseas	Persons	16	15	17
Number of employees engaged in Mainland China	Persons	38,951	39,459	39,265
Employess with bachelor degree	Persons	12,759	11,310	11,471
Employess with college degree	Persons	13,248	12,601	13,698
Employess with high school degree or lower	Persons	11,934	14,665	13,150
Employess with Master degree or above	Persons	1,026	898	963
Percentage of male employees in senior management	%	84.08	83.47	/
Number of male employees in senior management	Persons	956	1,020	/
Percentage of female employees in senior management	%	15.92	16.53	/
Number of female employees in senior management	Persons	181	202	/
Percentage of male employees in middle management	%	73.13	73.90	/
Number of male employees in middle management	Persons	2,558	2,746	/
Percentage of female employees in middle management	%	26.87	26.10	/

<sup>4</sup> Indirect GHG emissions (Scope II) cover the emissions indirectly arising from the purchased power consumed by the headquarters and affiliates of ENN-NG during business operation.

<sup>5</sup> As the value chain information becomes more complete, we will continue to improve the accuracy of Scope 3 carbon footprint data.



Name of Indicator	Unit	2022	2021	2020
Number of female employees in middle management	Persons	940	970	/
Number of minority employees	Persons	1,386	1,215	963
Number of Newcomers	Persons	4,546	4,889	4,476
Number of Newcomers from experienced hire	Persons	3,974	4,332	4,166
Number of Newcomers from school	Persons	572	557	310
Average annual base salary of male employees at senior management level	RMB	847,380	/	/
Average annual base salary of female employees at senior management level	RMB	639,975	/	/
Average annual gross income of male employees at senior management level	RMB	1,644,804	/	/
Average annual gross income of female employees at senior management level	RMB	1,276,218	/	/
Average annual base salary of male employees at management level other than senior management	RMB	194,397	/	/
Average annual base salary of female employees at management level other than senior management	RMB	162,922	/	/
Average annual gross income of male employees at management level other than senior management	RMB	322,325	/	/
Average annual gross income of female employees at management level other than senior management	RMB	268,181	/	/
Average annual base salary of ordinary female employees	RMB	88,607	77,939	/
Average annual base salary of ordinary male employees	RMB	78,875	90,614	/
Turnover rate	%	12.16	10.13	9.54
Number of departed employees	Persons	4,740	4,001	3,748
Male employee turnover rate	%	12.61	9.93	9.42
Male employee departed	Persons	3640	2,972	2793
Female employee turnover rate	%	10.90	10.79	9.92
Female employee departed	Persons	1,100	1,029	955
Turnover rate of employees under 30 years old	%	18.84	16.88	12.43
Departed employees under age 30 years old	Persons	1,717	1,568	1,498
Turnover rate of employees age 30-50 years old	%	9.41	7.63	8.30
Departed employees age 30-50 years old	Persons	2,440	1,971	2,004
Turnover rate of employees over 50 years old	%	14.86	10.71	7.93
Departed employees over 50 years old	Persons	583	466	246
Total sessions of employee training	Sessions	74,379	93,957	63,535
Number of employees trained	Persons	38,551	39,414	38,684
Number of male employees trained	Persons	28,582	29,891	28,111
Number of female employees trained	Persons	9,969	9,523	10,573
Number of senior management employees trained	Persons	1,137	1,218	1,236
Number of middle management employees trained	Persons	3,498	3,721	3,427

Name of Indicator	Unit	2022	2021	2020
Number of employees trained at ordinary level	Persons	33,916	34,475	34,021
Percentage of certified personnel by positions	%	3.48	3.79	3.25
Certified personnel by positions	Persons	1,355	1,496	1,275
Total training duration	Hours	910,380	1,276,545	599,024
Average training hours of male employees	Hours/ person	24.60	31.72	15.54
Average training hours of female employees	Hours/ person	20.79	34.48	15.34
Average training hours of senior manager	Hours/ person	31.55	32.91	62.65
Average training hours of middle manager	Hours/ person	26.89	28.59	21.76
Average training hours of general employee	Hours/ person	23.01	32.78	13.14
Fatalities due to safety incidents	Persons	0	0	1
Total recordable incidents	Persons	29	78	/
Working time lost due to work injury	Hours	21,063	25,570	30,817
Total recordable incident rate (excluding fatalities)	%	0.07	0.20	/
Lost time injury frequency rate (LTIFR) <sup>6</sup>	/	0.34	1.09	1.27
Total recordable incident rate (per thousand employees) <sup>7</sup>	/	0.74	1.98	/
Number of persons receiving safety training	Person-times	554,333	397,079	503,096
Safety training for general manager level	Person-times	17,630	2,620	774
Safety training for safety management personnel	Person-times	6,781	11,283	5,160
Safety training for employees	Person-times	529,922	383,176	497,162
Full-time security management staff	Persons	1,041	828	827
Number of safety emergency drills	Times	5,218	10,535	11,450
New patent applications	Pieces	178	162	287
Effective patents	Pieces	1,743	1,612	1,455
Effective copyrights	Pieces	419	331	340
Effective trademarks	Pieces	8	8	8
R&D investment	RMB ten thousand	170,947	116,240	68,497
Effective and significant complaints investigated	Cases	0	0	0
Concluded legal cases regarding corruption practices	Cases	0	0	0
Senior management received anti-corruption training	Persons	960	807	/
Employees in key positions received anti-corruption training	Persons	2,887	2,610	/
Employees in key positions received anti-corruption training	Persons	7,168	7,080	/
Type A suppliers (key)	Suppliers	129	82	/
Type B suppliers (important)	Suppliers	872	1,224	/
Type C suppliers (general)	Suppliers	2,950	2,992	/
The review coverage rate of tier 1 key suppliers for the past three years	%	100	100	/

<sup>6</sup> Lost time injury frequency rate (LTIFR) = Number of employees injured due to work during the Reporting Period x 1,000,000/Total working hours during the Reporting Period

<sup>7</sup> Work accident rate per thousand persons = 1000 \* Number of cases involving work-related injury/Total number of employee



Independent Assurance Report

DTT (23) BAR00012

To the Board of ENN Natural Gas Co., Ltd.:

We have been engaged by the Board of Directors of ENN Natural Gas Co., Ltd. (“ENN NG”) to perform a limited assurance engagement on its 2022 Environmental, Social and Government Report (“ESG Report”) for the selected ESG KPIs in 2022.

Subject Matters for Limited Assurance

We performed a limited level of assurance engagement in below specific information of selected 2022 ESG KPIs included in 2022 ESG Report:

- Scope 1 Greenhouse Gas Emission
- Natural Gas Consumption
- Gasoline Consumption
- Diesel Consumption
- Coal Consumption
- Percentage of Female Senior Manager
- Number of Male Employees
- Number of Female Employees
- Work-related Accident Rate Per Million Working Hours
- Number of total member companies obtained ISO45001 or ISO39001 Certification
- Safety Training for Employees in Person-times
- Employee Satisfaction

The limited assurance targeted the key 2022 ESG indicators selected in the ESG Report and did not cover other ESG indicators or information disclosed in ESG Report in 2022 and pervious years.

The Subject Reporting Standards

The key ESG indicators selected in the ESG Report were prepared in accordance with the EKY Indicator Preparation Standards (“Preparation Standards”) attached to this report.

Responsibilities of the Board of Directors

It is the Board's responsibility to determine appropriate reporting standard and collection of key ESG indicators selected in the ESG report for 2022 in accordance with the Preparation Standards. Its responsibility shall include identifying, establishing and maintaining internal control system related to key ESG indications, so as to prevent material misstatement due to fraud or error.

ENN NG's management-level is responsible for overseeing ENN NG's ESG reporting process.

Independence and Quality Control

We comply with the requirements for independence and other professional ethics set out in the International Code of Ethics for Professional Accountants (including the International Standards of Independence) issued by the International Ethics Standards Board for Accountants. The Code of Ethics is based on the principles of integrity, objectivity, professional competence and diligence, confidentiality and professional conduct.

The assurance engagement complied with International Standard on Quality Control 1 issued by the International Auditing and Assurance Standards Board, which requires accounting firms to design, implement and operate a quality management system, including policies and procedures related to compliance with ethics, professional standards, and legal and regulatory requirements.

Responsibilities

Our responsibility is to perform assurance in accordance with the provisions of the International Standards on Assurance Engagements 3000 (Revised) – Assurance Engagements other than Audits or Reviews of Historical Financial Information. We prepared and published assurance conclusions with limited assurance on whether the key ESG indicators selected in the 2022 ESG Report have been disclosed in all material respects in accordance with the Preparation Standards.

ENN NG's management is responsible for the preparation of the selected 2022 ESG KPIs included in 2022 ESG Report in accordance with the Basic of Preparation. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of ESG KPIs that is free from material misstatement, whether due to fraud or error

Assurance Approach

As the nature and timing of the procedures implemented by limited assurance are different from and less extensive than the reasonable assurance, limited assurance obtains a lower degree of assurance than the reasonable assurance. We do not provide reasonable assurance that the key ESG indicators selected in the 2022 ESG Report were disclosed in all material respects in accordance with the Preparation Standards. The assurance included identifying areas where key ESG indicators for 2022 may be materially misstated in the ESG Report, designing and implementing assurance procedures to address these identified areas, and obtaining evidence accordingly. The assurance procedures we carried out depend on our professional judgment and assessment of the risks of assurance.

Procedures of assurance:

- Interview ENN NG's manager and staff responsible for information collection, consolidation and disclosure to understand the process of reporting;
- Sampling testing relevant supporting documents;
- Analysing selected key ESG indicators;
- Recalculating selected key ESG indicators.

Limitations of Assurance

We draw the attention of users to the fact that there is no universally accepted system of evaluation and measurement standards for non-financial information, which may affect the comparability of relevant data between companies.



Conclusions

Based on the above work performed, nothing has come to our attention that would lead us to believe that there is any material misstatement related to the key ESG indicators in ENN NG's ESG Report prepared in accordance with reference to the standards.

Use of Independent Limited Assurance Report

This independent limited assurance report is solely for the purpose of preparing the ENN NG's 2022 ESG Report, and is not suitable and cannot be used for other purposes. We do not assume responsibility or accept liability to any other person or third party other than ENN NG's board of directors for this report.

This is the English translation of the Independent Assurance Report in Chinese version. If there is any conflict between the translated and Chinese version, the Chinese version shall prevail.

Deloitte Touche Tohmatsu Certified Public Accountants LLP

Shanghai, China

Apr. 19, 2023

Appendix: Key ESG Indicator Reporting Standards

1. Scope 1 Greenhouse Gas Emission: Greenhouse gas emissions from direct combustion of fossil energy (coal, diesel, gasoline, natural gas) by ENN Natural Gas Co., Ltd. and its subsidiaries during the production and operation from January 1 to December 31, 2022. Coefficients used in greenhouse gas emission accounting are mainly the default values of common fossil fuel parameters stated in Appendix II of the Guidelines for Accounting and Reporting of Greenhouse Gas Emissions of Chinese Oil and Gas Producers (Trial) issued by the National Development and Reform Commission.
2. Coal Consumption: Amount of coal that ENN Natural Gas Co., Ltd. and its subsidiaries' retail and wholesale gas business consumed during their production and operation, in 10,000 tons, from January 1 to December 31, 2022.
3. Gasoline Consumption: Amount of gasoline that ENN Natural Gas Co., Ltd. and its subsidiaries' retail and wholesale gas business consumed during their production and operation, in 10,000 liters, from January 1 to December 31, 2022.
4. Diesel Consumption: Amount of diesel that ENN Natural Gas Co., Ltd. and its subsidiaries' retail and wholesale gas business consumed during their production and operation, in 10,000 liters, from January 1 to December 31, 2022.
5. Natural Gas Consumption: Amount of natural gas that ENN Natural Gas Co., Ltd. and its subsidiaries' retail and wholesale gas business consumed during their production and operation, in 10,000 standard cubic meters, from January 1 to December 31, 2022.
6. Percentage of Female Senior Manager: Accounted proportion of female senior management among ENN Natural Gas Co., Ltd. and its subsidiaries' senior management as of December 31, 2022. Senior management includes the leaders of subsidiaries, as well as heads of functional departments at headquarters and above.
7. Number of Male Employees: The number of male employees who signed employment contracts with ENN Natural Gas Co., Ltd. and its subsidiaries as of December 31, 2022.
8. Number of Femail Employees: The number of female employees who signed employment contracts with ENN Natural Gas Co., Ltd. and its subsidiaries as of December 31, 2022.
9. Number of total member companies obtained ISO45001 Certification: As of December 31, 2022, the number of ISO 45001 certified member companies within ENN Natural Gas Co., Ltd..
10. Work-related Accident Rate per Million Working Hours: Rate of injuries over million hours of employees of ENN Natural Gas Co., Ltd. and its subsidiaries. The juries were occurred in different work scenarios from January 1, 2022 to December 31, 2022.
11. Safety Training for Employees in Person-time: The total number of employees who participated in the training on safety production organized by ENN Natural Gas Co., Ltd. and its subsidiaries.
12. Employee Satisfaction: The average employee satisfaction rate calculated through the employee satisfaction questionnaire engagement held by ENN Natural Gas Co., Ltd. and its subsidiaries.

GIR Indicator Index

Instructions for use	This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standard, and reports the information cited in this GRI content index.	
GRI Standard	GRI 1: Foundation 2021	

GRI Stand-ard	Disclosure	Chapter
GRI 2: General Disclosures 2021		• About this report
The organization and its reporting practices		
2-1	Organizational details	• ENN-NG: Digitally Connected in All Scenarios, Moving Towards a Sustainable Future
2-2	Entities included in the organization' s sustainability reporting	• About this report
2-3	Reporting period, frequency and contact point	
2-4	Restatements of information	
2-5	External assurance	• Appendix: Independent Assurance Report
Activities and workers		
2-6	Activities, value chain and other business relationships	• Refine ESG Goals and Optimize Management • Green product and low carbon development • Resilient Ecological Value Chain with Digital Intelligence
2-7	Employees	• Ensure Health and Safe Production • Where Talents Meet Unlimited Opportunities • Where Teams Collaborate to Thrive • Where the Greens Take Root to Blossom
2-8	Workers who are not employees	• Ensure Health and Safe Production • Safe Gas Supply with Guaranteed Quality • Pragmatic Climate Governance to Realize Double-carbon Goals
Governance		
2-9	Governance structure and composition	• Improve Governance for Diversified Development • Refine ESG Goals and Optimize Management
2-10	Nomination and selection of the highest governance body	• Improve Governance for Diversified Development
2-11	Chair of the highest governance body	• Improve Governance for Diversified Development
2-12	Role of the highest governance body in overseeing the management of impacts	• Improve Governance for Diversified Development • Refine ESG Goals and Optimize Management
2-13	Delegation of responsibility for managing impacts	• Improve Governance for Diversified Development

GRI Stand-ard	Disclosure	Chapter
2-14	Role of the highest governance body in sustainability reporting	• Improve Governance for Diversified Development
2-15	Conflicts of interest	• Compliance with Ethics and Operation with Integrity
2-16	Communication of critical concerns	• Refine ESG Goals and Optimize Management
2-17	Collective knowledge of the highest governance body	• Refine ESG Goals and Optimize Management
2-18	Evaluation of the performance of the highest governance body	• Improve Governance for Diversified Development • Refine ESG Goals and Optimize Management • Reinforced Risk Control and Sound Operation
2-19	Remuneration policies	• Refine ESG Goals and Optimize Management • Where Teams Collaborate to Thrive
2-20	Process to determine remuneration	• Refine ESG Goals and Optimize Management • Where Teams Collaborate to Thrive
2-21	Annual total compensation ratio	• Refine ESG Goals and Optimize Management • Where Teams Collaborate to Thrive
Strategy, policies and practices		
2-22	Statement on sustainable development strategy	• Refine ESG Goals and Optimize Management
2-23	Policy commitments	• List of the Company's ESG Policies
2-24	Embedding policy commitments	• Improve Governance for Diversified Development • Pragmatic Climate Governance to Realize Double-carbon Goals • Stringent Emission Management for Efficient Pollution Control • Upholding the Red Lines for Ecological Protection • Green product and low carbon development
2-25	Processes to remediate negative impacts	• Reinforced Risk Control and Sound Operation • Resilient Ecological Value Chain with Digital Intelligence
2-26	Mechanisms for seeking advice and raising concerns	• Refine ESG Goals and Optimize Management
2-27	Compliance with laws and regulations	• Improve Governance for Diversified Development • Refine ESG Goals and Optimize Management • Compliance with Ethics and Operation with Integrity • Reinforced Risk Control and Sound Operation • Ensure Health and Safe Production • Safe Gas Supply with Guaranteed Quality • Environmental Protection and Green Operation • Pragmatic Climate Governance to Realize Double-carbon Goals





GRI Stand-ard	Disclosure	Chapter
2-27	Compliance with laws and regulations	<ul style="list-style-type: none"><li>• Stringent Emission Management for Efficient Pollution Control</li><li>• Upholding the Red Lines for Ecological Protection</li><li>• Where Talents Meet Unlimited Opportunities</li><li>• Where Teams Collaborate to Thrive</li><li>• Resilient Ecological Value Chain with Digital Intelligence</li><li>• Joint Effort for a Digitalized Tomorrow</li></ul>
Stakeholder engagement		
2-29	Approach to stakeholder engagement	<ul style="list-style-type: none"><li>• Refine ESG Goals and Optimize Management</li><li>• Compliance with Ethics and Operation with Integrity</li></ul>
2-30	Collective bargaining agreements	<ul style="list-style-type: none"><li>• Where Staffs Feel Appreciated and Cherished</li></ul>
GRI 3: Material Topics 2021		
3-1	Process to determine material topics	<ul style="list-style-type: none"><li>• Refine ESG Goals and Optimize Management</li></ul>
3-2	List of material topics	<ul style="list-style-type: none"><li>• Refine ESG Goals and Optimize Management</li></ul>
3-3	Management of material topics	<ul style="list-style-type: none"><li>• Refine ESG Goals and Optimize Management</li><li>• Reinforced Risk Control and Sound Operation</li></ul>
Economic		
GRI 201: Economic Performance 2016		
201-2	Financial implications and other risks and opportunities due to climate change	<ul style="list-style-type: none"><li>• Reinforced Risk Control and Sound Operation</li><li>• Pragmatic Climate Governance to Realize Double-carbon Goals</li></ul>
201-3	Defined benefit plan obligations and other retirement plans	<ul style="list-style-type: none"><li>• Refine ESG Goals and Optimize Management</li><li>• Where Teams Collaborate to Thrive</li></ul>
GRI 204:Procurement Practices 2016		
204-1	Proportion of spending on local suppliers	<ul style="list-style-type: none"><li>• Resilient Ecological Value Chain with Digital Intelligence</li></ul>
GRI 205: Anti-corruption 2016		
	Operations assessed for risks related to corruption	<ul style="list-style-type: none"><li>• Compliance with Ethics and Operation with Integrity</li></ul>
205-2	Communication and training about anti-corruption policies and procedures	
205-3	Confirmed incidents of corruption and actions taken	
GRI 206: Anti-competitive Behavior 2016		
206-1	Legal actions for anticompetitive behavior, anti-trust, and monopoly practices	<ul style="list-style-type: none"><li>• Compliance with Ethics and Operation with Integrity</li></ul>
Environment		
GRI 302 : Energy 2016		
302-1	Energy consumption within the organization	<ul style="list-style-type: none"><li>• Environmental Protection and Green Operation</li></ul>
302-3	Energy intensity	<ul style="list-style-type: none"><li>• Environmental Protection and Green Operation</li></ul>

GRI Stand-ard	Disclosure	Chapter
302-4	Reduction of energy consumption	<ul style="list-style-type: none"><li>• Environmental Protection and Green Operation</li><li>• Green product and low carbon development</li></ul>
302-5	Reductions in energy requirements of products and services	<ul style="list-style-type: none"><li>• Environmental Protection and Green Operation</li><li>• Green product and low carbon development</li></ul>
GRI 303: Water and Effluents 2018		
303-3	Water withdrawal	<ul style="list-style-type: none"><li>• Environmental Protection and Green Operation</li></ul>
303-4	Water discharge	<ul style="list-style-type: none"><li>• Stringent Emission Management for Efficient Pollution Control</li></ul>
303-5	Water consumption	<ul style="list-style-type: none"><li>• Environmental Protection and Green Operation</li></ul>
GRI 304: Biodiversity 2016		
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<ul style="list-style-type: none"><li>• Upholding the Red Lines for Ecological Protection</li></ul>
304-2	Significant impacts of activities, products and services on biodiversity	
304-3	Habitats protected or restored	
GRI 305: Emissions 2016		
305-1	Direct(Scope 1)GHG emissions	<ul style="list-style-type: none"><li>• Pragmatic Climate Governance to Realize Double-carbon Goals</li></ul>
305-2	Energy indirect(Scope 2)GHG emissions	
305-3	Other indirect (Scope 3)GHG emissions	
305-4	GHG emissions intensity	
305-5	Reduction of GHG emissions	
305-7	Nitrogen oxides(NOx),sulfur oxides(SOx),and other significant air emissions	
GRI 306: Effluents and Waste 2016		
306-1	Water discharge by quality and destination	<ul style="list-style-type: none"><li>• Stringent Emission Management for Efficient Pollution Control</li></ul>
306-2	Waste by type and disposal method	
306-3	Significant spills	
GRI 308: Supplier Environmental Assessment 2016		
308-1	New suppliers that were screened using environmental criteria	<ul style="list-style-type: none"><li>• Resilient Ecological Value Chain with Digital Intelligence</li></ul>
308-2	Negative environmental impacts in the supply chain and actions taken	<ul style="list-style-type: none"><li>• Resilient Ecological Value Chain with Digital Intelligence</li></ul>
Social		
GRI 401: Employment 2016		
401-1	New employee hires and employee turnover	<ul style="list-style-type: none"><li>• Where Talents Meet Unlimited Opportunities</li></ul>

GRI Stand-ard	Disclosure	Chapter
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	<ul style="list-style-type: none"><li>•Where Talents Meet Unlimited Opportunities</li><li>•Where Teams Collaborate to Thrive</li><li>•Where the Greens Take Root to Blossom</li><li>•Where Staffs Feel Appreciated and Cherished</li></ul>
401-3	Parental leave	<ul style="list-style-type: none"><li>•Where Teams Collaborate to Thrive</li></ul>
GRI 402 : Labor/Management Relations 2016		
402-1	Minimum notice periods regarding operational changes	<ul style="list-style-type: none"><li>•Refine ESG Goals and Optimize Management、Where Talents Meet</li><li>•Unlimited Opportunities to Shine</li><li>•Where Teams Collaborate to Thrive</li></ul>
GRI 403: Occupational Health and Safety 2018		
403-1	Occupational health and safety management system Hazard identification, risk assessment, and incident investigation Occupational health services	<ul style="list-style-type: none"><li>•Ensure Health and Safe Production</li></ul>
403-2	Occupational health and safety management system Hazard identification, risk assessment, and incident investigation Occupational health services	<ul style="list-style-type: none"><li>•Ensure Health and Safe Production</li></ul>
403-3	Occupational health and safety management system Hazard identification, risk assessment, and incident investigation Occupational health services	<ul style="list-style-type: none"><li>•Ensure Health and Safe Production</li></ul>
403-4	Worker participation, consultation, and communication on occupational health and safety	<ul style="list-style-type: none"><li>•Ensure Health and Safe Production</li></ul>
403-5	Worker training on occupational health and safety	<ul style="list-style-type: none"><li>•Ensure Health and Safe Production</li></ul>
403-6	Promotion of worker health	<ul style="list-style-type: none"><li>•Ensure Health and Safe Production</li></ul>
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	<ul style="list-style-type: none"><li>•Ensure Health and Safe Production</li><li>•Safe Gas Supply with Guaranteed Quality</li></ul>
403-8	Workers covered by an occupational health and safety management system	<ul style="list-style-type: none"><li>•Ensure Health and Safe Production</li></ul>
403-9	Work-related injuries	<ul style="list-style-type: none"><li>•Ensure Health and Safe Production</li></ul>
403-10	Work-related ill health	<ul style="list-style-type: none"><li>•Ensure Health and Safe Production</li><li>•Safe Gas Supply with Guaranteed Quality</li></ul>
GRI 404: Training and Education 2016		
404-1	Average hours of training per year per employee	<ul style="list-style-type: none"><li>•Reinforced Risk Control and Sound Operation</li><li>•Where the Greens Take Root to Blossom</li></ul>
404-2	Programs for upgrading employee skills and transition assistance programs	<ul style="list-style-type: none"><li>•Where Talents Meet Unlimited Opportunities</li><li>•Where the Greens Take Root to Blossom</li></ul>
404-3	Percentage of employees receiving regular performance and career development reviews	<ul style="list-style-type: none"><li>•Where Teams Collaborate to Thrive</li></ul>
GRI 405: Diversity and Equal Opportunity 2016		

GRI Stand-ard	Disclosure	Chapter
405-1	Diversity of governance bodies and employees	<ul style="list-style-type: none"><li>•Where Talents Meet Unlimited Opportunities</li></ul>
405-2	Ratio of basic salary and remuneration of women to men	<ul style="list-style-type: none"><li>•Where Teams Collaborate to Thrive</li></ul>
GRI 406: Non-discrimination 2016		
406-1	Incidents of discrimination and corrective actions taken	<ul style="list-style-type: none"><li>•Where Talents Meet Unlimited Opportunities</li></ul>
GRI 408: Child Labor 2016		
408-1	Operations and suppliers at significant risk for incidents of child labor	<ul style="list-style-type: none"><li>•Where Talents Meet Unlimited Opportunities</li></ul>
GRI 409 : : Forced or Compulsory Labor 2016		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	<ul style="list-style-type: none"><li>•Where Talents Meet Unlimited Opportunities</li></ul>
GRI 413 : Local Communities 2016		
413-1	Operations with local community engagement, impact assessments, and development programs	<ul style="list-style-type: none"><li>•Safe Gas Supply with Guaranteed Quality</li><li>•Upholding the Red Lines for Ecological Protection</li><li>•Social Engagement and Corporate Social Responsibilities</li></ul>
GRI 414 : Supplier Social Assessment 2016		
414-1	New suppliers that were screened using social criteria	<ul style="list-style-type: none"><li>•Resilient Ecological Value Chain with Digital Intelligence</li></ul>
414-2	Negative social impacts in the supply chain and actions taken	<ul style="list-style-type: none"><li>•Resilient Ecological Value Chain with Digital Intelligence</li></ul>
GRI 415: Public Policy 2016		
415-1	Political contributions	<ul style="list-style-type: none"><li>•Compliance with Ethics and Operation with Integrity</li></ul>
GRI 416: Customer Health and Safety 2016		
416-1	Assessment of the health and safety impacts of product and service categories	<ul style="list-style-type: none"><li>•Safe Gas Supply with Guaranteed Quality</li></ul>
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	<ul style="list-style-type: none"><li>•Safe Gas Supply with Guaranteed Quality</li></ul>
GRI 417: Marketing and Labeling 2016		
417-1	Requirements for product and service information and labeling	<ul style="list-style-type: none"><li>•Joint Effort for a Digitalized Tomorrow</li></ul>
417-2	Incidents of non-compliance concerning product and service information and labeling	<ul style="list-style-type: none"><li>•Safe Gas Supply with Guaranteed Quality</li></ul>
417-3	Incidents of non-compliance concerning mar- keting communications	<ul style="list-style-type: none"><li>•Safe Gas Supply with Guaranteed Quality</li></ul>
GRI 418: Customer Privacy 2016		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	<ul style="list-style-type: none"><li>•Safe Gas Supply with Guaranteed Quality</li></ul>



List of the Company's ESG Policies

Section	HKEX ESG Guides	Name of System
Strengthen the sense of re-sponsibility and govern by laws and regulations	B1 Employment	Articles of Association
	B3 Development and Training	Rules of Procedure for the General Meeting
	B3 Development and Training	Rules of Procedure for the Board of Directors
	B3 Development and Training	Rules of Procedure for the Board of Supervisors
	B3 Development and Training	Rules of Procedure for the Special Committees under the Board of Directors
	B1 Employment	Independent Director System
	/	Investor Relation Management Rules
	B5 Supply Chain Management	Related-party Transaction Management Rules
	/	Fund Raising Management Rules
	B1 Employment	Policy on the Diversity of Board Members
	B7 Anti-corruption	Policy on Anti-fraud Prevention, Anti-corruption and Anti-bribery
	B6 Product Responsibility	Code on Good Faith and Compliance
	B5 Supply Chain Management	Guidelines for Business Contacts
	B3 Development and Training	Code of Conduct for Employees
	B3 Development and Training	Compliance Management System
	B6 Product Responsibility	Administrative Measures for Complaints
	B3 Development and Training	Measures for Punishment against the Violations of Regulations and Disciplines by Employees
	B6 Product Responsibility	Digital Security Management Rules
	B6 Product Responsibility	Management Rules for Information Security, Data Sovereignty and Privacy Protection
	B6 Product Responsibility	Circular on Further Strengthening the Security Management of Office Computers at ENN
	B6 Product Responsibility	Privacy Policy
	B6 Product Responsibility	Regulations on Data Management by Classification and Level
	B6 Product Responsibility	Provisions on Archives Management
	B6 Product Responsibility	Administrative Measures for Accounting Archives
	B6 Product Responsibility	Implementing Rules for the Administration of Persons Having Access to Insider Information
Maintain safe operation and solid corner-stone for devel-opment	B2 Health and Safety	Heath, Safety and Environment (HSE) Policy
	B2 Health and Safety	Administrative Provisions on Health, Safety and Environment (HSE) Accidents and Incidents
	B2 Health and Safety	Code for Hazard Analysis at Work

Section	HKEX ESG Guides	Name of System
Maintain safe operation and solid cornerstone for development	B2 Health and Safety	Administrative Provisions on the Quantitative Review of QHSE
	B2 Health and Safety	Administrative Provisions on Red and Yellow Lines for Safety
	B2 Health and Safety	Safety and Life-saving Rules
	B2 Health and Safety	Management Rules for QHSE Supervision
	B2 Health and Safety	Code for Safety Inspection before Startup of Equipment and Facilities
	B2 Health and Safety	Specification on Matrix Application for HSE Risk Assessment
	B2 Health and Safety	Safe Production Responsibility System
	B2 Health and Safety	Administrative Measures for Work-related Job Rotation of Key Roles in Production Systems
	B3 Development and Training	Measures for the Quantitative Evaluation of QHSE Performance
	B6 Product Responsibility	Service System Handbook
	B6 Product Responsibility	Administrative Measures for Customer Complaints
	B6 Product Responsibility	Administrative Measures for Information Security Risks
	B6 Product Responsibility	Administrative Provisions on Information Security
	B6 Product Responsibility	Customer Privacy Policy
Protect environment and promote low-carbon development	A3 Environment and Natural Resources	Administrative Measures for Environmental Protection
	A1 Emissions	Administrative Measures for Carbon Emissions
	A1 Emissions	Management Rules for Implementation of Clean Production
	A1 Emissions	Environmental Monitoring System
	A3 Environment and Natural Resources	Environmental Emergency Response Plan
	A3 Environment and Natural Resources	Regulations on Environmental Protection Management of Construction Projects
	A1 Emissions	Standard for Pollution Control on the Non-hazardous Industrial Solid Waste Storage and Landfill
	A1 Emissions	Standard for Pollution Control on the Hazardous Waste Landfill
	A1 Emissions	Standard for Pollution Control on the Municipal Solid Waste Incineration
	A1 Emissions	Standard for Pollution Control on the Landfill Site of Municipal Solid Waste
	A1 Emissions	Management System for Solid Wastes and Hazardous Wastes of Xinneng Energy Co., Ltd.
	A3 Environment and Natural Resources	Heath, Safety and Environment (HSE) Policy
	A3 Environment and Natural Resources	Biodiversity Protection Policy

Section	HKEX ESG Guides	Name of System
	A3 Environment and Natural Resources	Administrative Measures for Civilized Construction
Inspire and empower the talents to create value	B1 Employment & B3 Development and Training	Policy on Talent Development and Employment
	B1 Employment	Recruitment Management System
	B1 Employment & B4 Labour Standards	Rules on Employee Appointment
Inspire and empower the talents to create value	B4 Labour Standards	Administrative Measures for Labor Contracts
	B4 Labour Standards	Regulations on Administration of Leave and Vacation
	B4 Labour Standards	Code of Conduct for Employees
	/	Administrative Measures for“ Five Obligatory Visits” and Subsidies for Poverty-stricken Employees
Enable digital intelligence and achieve green development of industry chain	B5 Supply Chain Management	Code of Conduct for Corporate Social Responsibility of Suppliers
	B5 Supply Chain Management	Agreement on Health, Safety and Environment (HSE) with Suppliers
	B5 Supply Chain Management	Provisions on the Management of Material Procurement
	B5 Supply Chain Management	Circular on the Sustainable Development Strategy of ENN
	B5 Supply Chain Management	Measures for the Implementation of Access, Evaluation and Exit of Ecological Partners for Integrated Energy (Suppliers of Products and Services)
	B6 Product Responsibility	Measures for Scientific and Technological Innovation Rewards of ENN Natural Gas Co., Ltd.
	B8 Community Investment	Provisions on the Management of Public Welfare and Charitable Activities
	B8 Community Investment	Policy on Public Welfare and Charitable Activities
	B8 Community Investment	Administrative Measures for External Donations

## Feedback on ENN-NG's ESG Report

Dear readers,

Thank you for taking the time to read our company's 2022 ESG (Environmental, Social and Governance) report. We value communication with all stakeholders and strive to improve our environmental, social, and governance performance as well as future report preparation. Your feedback is crucial to us; therefore, we sincerely looking forward to and appreciate your valuable opinions and suggestions.

Please provide an evaluation and feedback on ENN-NG's 2022 ESG report:

- Overall assessment of this report:  
☐ Good   ☐ Fairly good   ☐ Average   ☐ Poor
- The clarity, accuracy, and completeness of information and data disclosed in the report:  
☐ Good   ☐ Fairly good   ☐ Average   ☐ Poor
- The report's comprehensiveness regarding environmental responsibility:  
☐ Good   ☐ Fairly good   ☐ Average   ☐ Poor
- The report's comprehensiveness regarding social responsibility:  
☐ Good   ☐ Fairly good   ☐ Average   ☐ Poor
- The report's comprehensiveness regarding governance responsibility:  
☐ Good   ☐ Fairly good   ☐ Average   ☐ Poor
- Design and layout of the report:  
☐ Good   ☐ Fairly good   ☐ Average   ☐ Poor
- What do you think is the most needed improvement in this report?  
☐ Environment   ☐ Social   ☐ Governance   ☐ Safety   ☐ Employee   ☐ Supply chain
- The information that you wish to know but has not been disclosed in this report includes:
- Your opinions and suggestions on our company's ESG work and report preparation:







ENN  
新奥

新奥天然气股份有限公司  
ENN Natural Gas Co., Ltd.