



# 2021

NARI Technology Co., Ltd.  
**Sustainability Report**

# About the Report



## Reporting Scope

This is the first sustainability report and also the 10th social responsibility report of NARI Technology Co., Ltd. ("NARI," "the Company" or "we" for short). It discloses the Company's social responsibility and sustainability philosophy, practices and performance during the period from January 1 to December 31, 2021, and some contents are beyond the above time range. This annual report covers NARI and its subsidiaries.

## Reporting References

This report is prepared in accordance with the *Guidelines to the Central State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities* issued by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC), and with reference to the *Guidelines of the Shanghai Stock Exchange for Self-regulation of Listed Companies No.1-Standardized Operation*, *GRI Sustainability Reporting Standards (GRI Standards)* issued by the Global Sustainability Standards Board (GSSB), *ISO 26000:2010 Guidance on Social Responsibility* issued by the International Organization for Standardization (ISO), the *GB/T 36001-2015 Guidance on Social Responsibility Reporting* issued by the China National Institute of Standardization, and *Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 4.0)* issued by the Chinese Academy of Social Sciences.

## Data Source

The financial data herein comes from NARI's annual financial report and official documents. Unless otherwise stated, the financial information is reported in renminbi (RMB).

## Confirmation and Approval

This report is published with the confirmation of the Company's Board of Directors.

## Access to the Report

This report is available in both Chinese and English. Should there be any inconsistency between the two versions, the Chinese version shall prevail. The report is published in both printed and electronic formats. You can download the electronic version from <http://www.naritech.cn/>. If you need a hard copy of the report, or have any questions or suggestions regarding its contents, please contact us:

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## Message from the Chairman

As an old saying goes, “Hard work pays off in an ever-changing world.” The year 2021 marked the start of China’s 14th Five-Year Plan. It was also a crucial year in NARI’s journey as it moves to a new stage of development. Despite facing a complex external environment, an arduous mission to develop and the impact of the COVID-19 pandemic, we still succeeded in completing this year’s goals and missions with high-quality performance through systematic planning, meticulous deployment, hard work and sheer tenacity. Furthermore, we built momentum for the company’s sustained, steady and healthy development.

**We took the lead to kick-start a new chapter of our innovation.** Being self-reliant and independent helped us improve upon our innovation capability. Relying upon basic and forward-looking research, we established a top-notch think tank, set up a research center for technology and strategy, formulated measures to support the national effort to move towards the target of carbon peak and carbon neutrality, and created a framework for research into a new electric power system and related technologies. We focused on tackling major technological challenges, making breakthroughs in the development of a nationally-produced substation secondary system, UHV tap-changers, and a supervisory and control system for large hydropower stations. Power grid automation, information communication and other core businesses all demonstrated strong momentum in the past year. The company made more progress in leveraging big data, cloud, IoT, AI and blockchain technologies to empower the energy and power sector. In addition, it applied and promoted a next-generation power dispatching technical support system, electricity trading platform, centralized control station, and lean management system for equipment assets. There were major advances in the development of the IGBT industry. Emerging businesses such as integrated energy, smart water management, intelligent operation inspection, and 5G applications all saw steady development. The key technology and application of differential protection for complex power grids won the second prize of the State Technological Invention Award. A total of 28 scientific and technological achievements were recognized by authoritative appraisal organizations for holding an internationally-leading position in terms of their overall technical level.

**We actively explored green development.** Our company vigorously conducted research to identify decarbonization pathways and deepen the research on the framework of the Cyber-Physical-Social System in Energy (CP SSE) in response to the global policy for addressing climate change, China’s 30/60 Decarbonization Goal (i.e., achieving peak carbon dioxide emissions by 2030 and carbon neutrality by 2060) and the central government’s call to build a new electric power system. The carbon management system was implemented in Xingyi’s local power grid, an area located in Guizhou province. Embracing the unprecedented opportunities for low-carbon social transformation, we unswervingly pursued green development, achieved major breakthroughs and accelerated the application of green and low-carbon technologies in the energy and power sector. Furthermore, we supported quick and synchronous access of clean energy to the power grid, while increasing the coverage and depth of the electric energy substitution. We also promoted the adoption of energy-saving, emission-reducing and energy-efficient technologies, and drove low-carbon, green and circular economic development in multiple ways. In response to the national call for green and low-carbon development, we actively implemented various measures for green development, strove to build up-to-standard green plants, and were awarded the honorary title of “Green Plant” by Jiangsu Province.

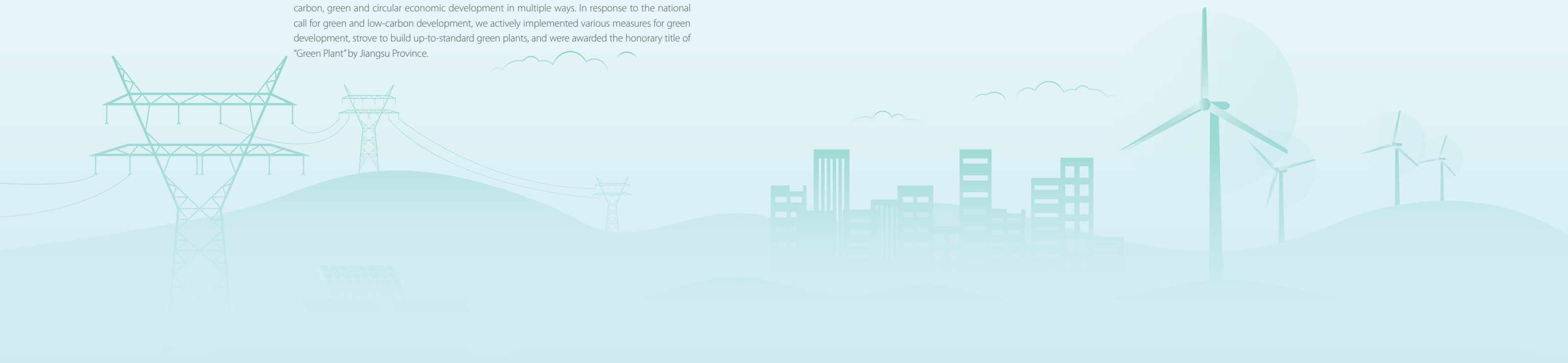
**We strongly emphasized safety and quality.** We are committed to safety and strive to ensure workplace safety, as well as the safe and stable operation of the power grid with high-quality products and services. We successfully completed our power supply missions for the centenary celebration for the founding of the Communist Party of China, flood control in Henan Province, the 4th China International Import Expo and the 14th National Games. We adopted full-process prevention and control measures to prevent safety risks in production and operation, strictly implemented various requirements for personal safety, equipment safety and product safety, and improved our overall safety management capability. Substantial efforts were made to launch the Quality Enhancement Project. We also established an innovative internal third-party quality management model for implementing continual improvements to the full-process product quality management.

**We made concerted efforts to create a better life for all.** To support China’s rural vitalization strategy, we undertook projects to benefit the lives of locals such as charging facilities, PV power plants, and the substitution of electric energy in rural areas, and promoted the upgrading of rural energy consumption, all to allow farmers to enjoy better and more prosperous lives. We acted upon China’s “dual circulation” strategy, cooperated with the Belt and Road Initiative, and realized the large-scale export of advantageous products and technical solutions with core competitiveness. We continued to enhance our public service capability and sustainability, which has enabled us to fulfill our corporate social responsibility and promote social harmony and progress. We consistently provided career development opportunities for employees and helped develop their overall professional ability, quality and spirit, effectively creating a greater sense of happiness and achievement for all staff.

Admittedly, the road to success is still long and fraught with challenges, but we will remain down-to-earth and continue forging ahead. In the spirit of “striving for excellence,” we will consciously implement the new national strategy for energy security, seize major opportunities, such as building a new electric power system, and vigorously promote the integrated innovation of energy technology and digital technology. As time marches forward, we will strive to become the bedrock for power technology innovation, serve the country through the power industry, foster new advantages in market competition, and write a new chapter for the green and low-carbon industry, which will further foster the clean and low-carbon transformation of energy and provide new contributions to the sustainable development of China’s economy, society and environment.

Chairman of NARI Technology Co., Ltd

Leng Jun



# About Us

## Company profile

NARI Technology Co., Ltd. was founded in 2001 and listed on the Shanghai Stock Exchange in 2003. We are a leading supplier of Energy Internet solutions, specifically, intelligent energy and power services. We are one of China's leading IT companies in the energy, power, and industrial control fields and a pioneer in intelligent electrical power services. The Company boasts advanced control technologies and information technologies, including big data, cloud computing, Internet of Things (IoT), mobile internet, artificial intelligence (AI), and blockchain technologies. We offer software and hardware products, integrated solutions, and application services for customers in industries such as power grid, power generation, railway transportation, water conservancy and water affairs, municipal public utilities, and mining. After decades of independent innovation and development, the Company has grown into a leading public company with total assets of RMB 72.733 billion, annual revenue of RMB 42.411 billion and market value of over RMB 100 billion. We have established one research institute, four business units, 16 branch companies, and 28 subsidiaries. Our business spans the following four pillar sectors: power grid automation and industrial control, relay protection and flexible power transmission, information communication for power automation, and power generation and water conservancy and environmental protection.

## Development strategy

NARI proactively adapts to the new normal of China's economic development and follows the overwhelming trend of integrated and parallel energy revolution and digital revolution. High-quality development is the eternal theme at NARI. We see it as our mission to support and serve the development of Energy Internet and the clean and low-carbon transformation. We channel our efforts to consolidate the foundation, empower the sector, make new breakthroughs, save cost and improve quality, unswervingly pursuing the goal of being world-leading, and gaining an edge in technology, industry, talents, reform, safety and ideas. Besides, we deepen reform in all areas, strengthen innovation-driven development, and improve quality and efficiency. Further efforts are also made to optimize the allocation of resources, adjust the industrial structure, and transform the approach to development. By establishing stronger and bigger presence in two types of industries and three markets, we aim to nurture the Company into a global industry leader in Energy Internet.

Establishing stronger and bigger presence in two types of industries

**Building a two-pronged industrial pattern for core industries and emerging industries:**

- ▶ We will continue to upgrade our core industries, and concentrate on the development of the Energy Internet. We will continue to consolidate and build up our core strengths in developing "front-end, high-end and top-end" of power grid automation and electric power information communication, etc., to accelerate high-end, green, intelligent and integrated development, and foster core industries with leading Energy Internet technology.
- ▶ We will vigorously develop emerging industries, waste no time to go digital, strengthen technological innovation for energy-information integration, and accelerate the development of advanced information communication, power semiconductor and other emerging businesses, to build new growth points and new core competitive edge for the Company.

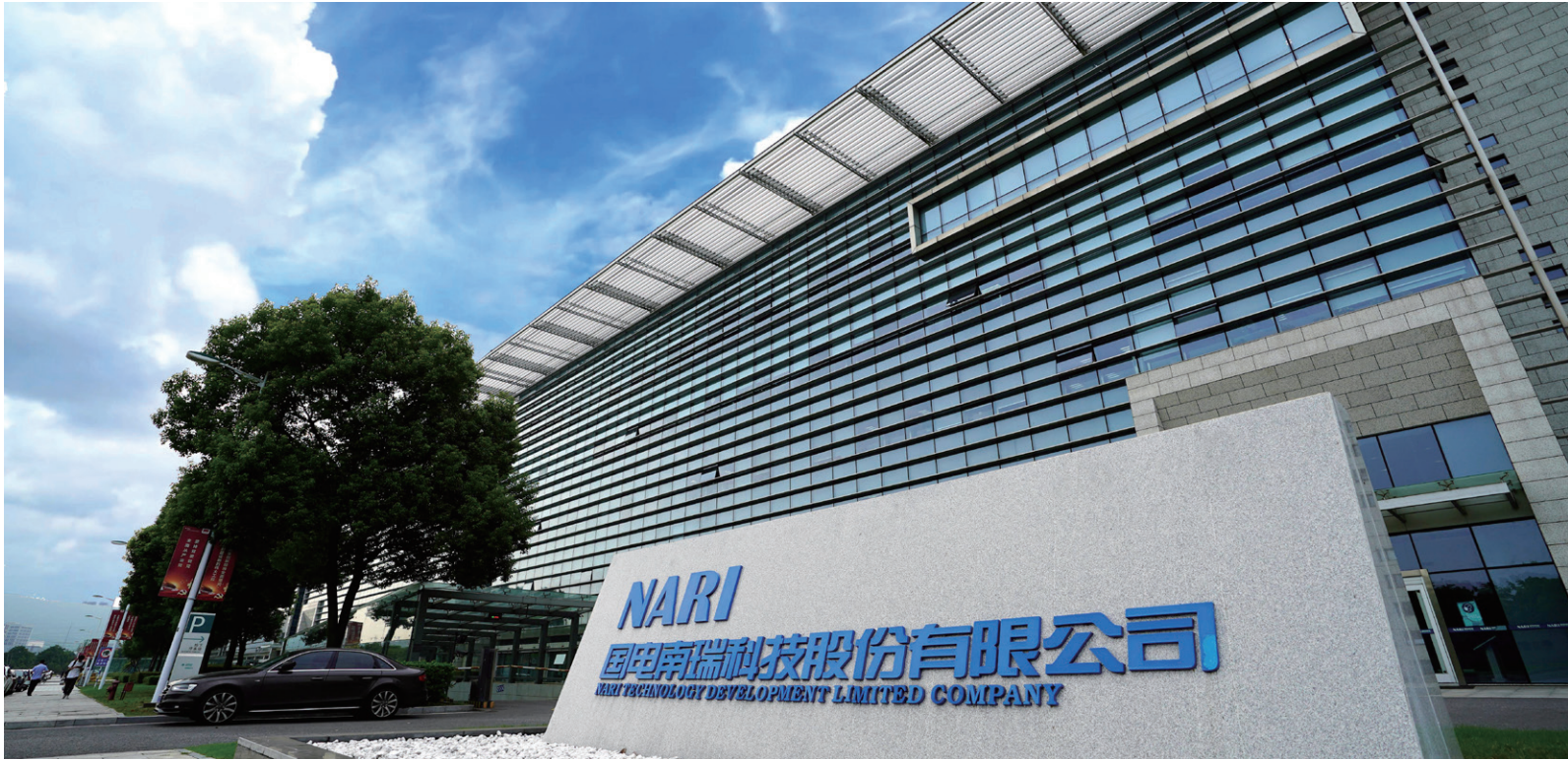
Establishing stronger and bigger presence in three markets

**Building a market pattern of "coordinating the power grid market & new markets and international market:**

- ▶ We will continue to consolidate our presence in our traditional markets in China, expand our business for State Grid Corporation of China and China Southern Power Grid Company Limited, give full play to our advantageous resources, introduce new market-oriented operation models, and strengthen delicacy project management to consolidate and build up our strengths.
- ▶ We will accelerate to expand into the new markets, keep abreast of the latest policies and technological innovation, strengthen the development of power grid homology technology, and increase investment of resources, funds and personnel to achieve greater breakthroughs at an earlier date.
- ▶ We will steadily seek expansion in the international market, dynamically adjust the layout of our overseas marketing network, focus on key target markets, plan integrated solutions, and provide bigger market-based incentives for outstanding performance, to strengthen our international competitiveness at an earlier date.

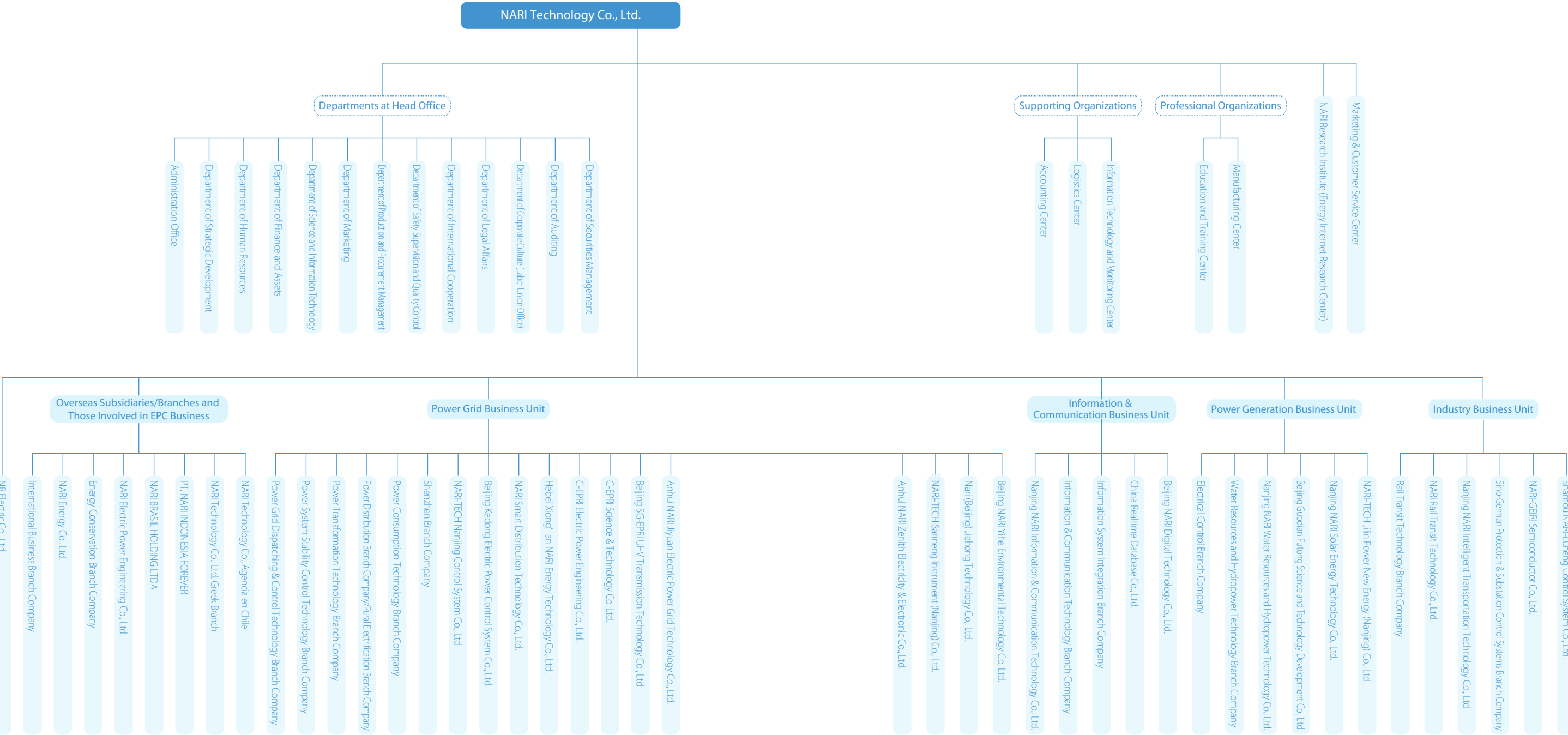
Strategic approach and tasks of NARI

## Corporate values





Organizational structure



Industry associations we join

Industry Association	Our Role
Committee of Power System Automation of Chinese Society for Electrical Engineering (CSEE)	Secretariat
China Chamber of Commerce for Import and Export of Machinery and Electronic Products	Member
China Federation of Electronics and Information Industry	Member
China Nuclear Energy Association	Member
China Association of Metros	Member
China International Contractors Association	Member
China Security & Protection Industry Association	Member
National Association of Financial Market Institutional Investors	Member
China Association for Public Companies	Director
Jiangsu Society for Electrical Engineering	Executive Director
Jiangsu Electrotechnical Society	Executive Director
Jiangsu Province Renewable Energy Industry Association	Deputy Director-General
Jiangsu Association for Public Companies	Vice Chairman
Committee of Power System Automation of Jiangsu Society for Electrical Engineering	Secretariat
Shanghai Civil Engineering Society	Member
Nanjing Mass Transit Industry Association	Deputy Director-General
Nanjing Association of Foreign Economic and Technical Cooperation	Executive Vice President

Honors and awards

Honors	Awarded by
Second Prize of the State Technological Invention Award 2020	Ministry of Science and Technology of the People's Republic of China
Excellence Award of the 22nd China Patent Award	China National Intellectual Property Administration
First Prize of China Electric Power Scientific and Technological Progress Award 2021	China Electricity Council
Jiangsu Provincial Science and Technology Award 2021	Jiangsu Provincial People's Government
Top 100 Nanjing Service Enterprises 2021	China Quality Certification Center
No.1 among Top 100 Annual Industrial Software Enterprises of China 2021	China Internet Week, China Business Industry Research Institute
Grade A for information disclosure 2020-2021	Shanghai Stock Exchange
Best Practice Case Award for Annual Performance Briefing of Public Companies 2020	China Association for Public Companies
Excellent Practice Case Award for Chairman's Office of Public Companies 2021	China Association for Public Companies
Golden Bull CSR Award 2020	China Securities Journal
"Star" Board of Directors Award 2021	Chinese Securities Journal
Chinese ESG Golden Awards 2021 - Best Responsibility Advancement Award	Sina Finance
GoldenBee Excellent CSR Report 2021- Growing Enterprise Award	GoldenBee Think Tank

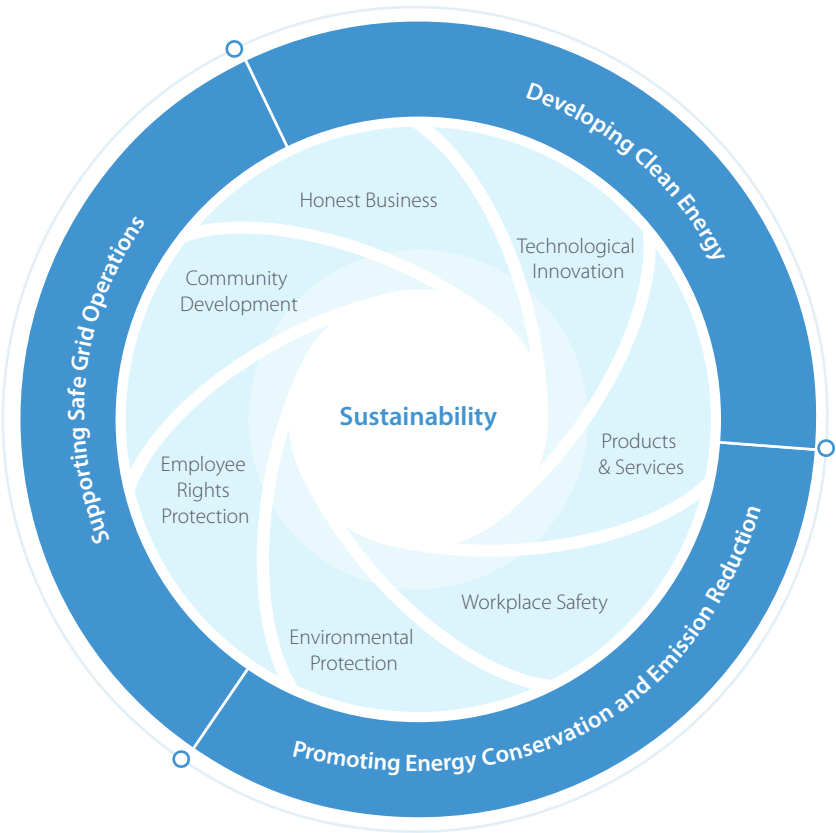


# Sustainability Management

## Sustainability philosophy

As a high-tech enterprise in electric power and related industries, NARI is committed to providing strong support and advanced technologies for the innovative development of the electric power industry, safe and stable grid operation, and the rapid development of China's power grids, information communication, power generation, energy conservation, environmental protection, industrial control and related industries.

We put sustainability at the heart of everything we do and follow the science-based CSR philosophy. We integrate CSR into our corporate strategies, decisions, management, and operation. Our efforts are geared towards ensuring we fulfill our commitments in honest business, technological innovation, products & services, workplace safety, environmental protection, employee rights protection, and community development. We work actively to build a responsible and a reliable global industry leader in Energy Internet and contribute to sustainable economic, social, and environmental development.



Our CSR philosophy model

## Sustainability governance structure

A scientific and effective governance structure is the foundation for sustainability and ESG (Environmental Social and Governance) work. To fully enhance NARI's ESG governance and ensure the effective implementation of sustainability and ESG, the Company has established a sustainability work system, under which the Strategy Committee of the Board of Directors is responsible for matters related to sustainability and ESG management. Overseen and guided by the Board of Directors, the Strategy Committee determines the Company's sustainability (including ESG, etc.) goals and plans, supervises the policies and measures adopted to achieve the sustainability goals and plans, regularly reviews the Company's sustainability progress, and deliberates on the Company's sustainability report.

A sustainability (ESG) task force is formed under the Strategy Committee to take charge of studying, formulating and updating the Company's sustainability goals and plans, organizing implementation, establishing relevant systems and mechanisms, and coordinating and supervising relevant departments and subsidiaries. The offices under the Sustainability (ESG) Task Force execute the Company's sustainability work, including 16 departments and organizations, such as the Department of Corporate Culture, Department of Securities Management, Administration Office, Department of Strategic Development, Department of Human Resources, Department of Finance and Assets, and Department of Science and Information Technology.



Sustainability governance structure of NARI

## Sustainability capability enhancement

NARI pays attention to the improvement of employees' sustainability awareness. We carry out online and offline, internal and external training to publicize and interpret the Company's CSR and sustainability philosophy among employees, stay updated with the global latest trend, learn from the best practices of sustainability management, and organize exchanges to improve the Company's sustainability management. In 2021, we carried out four internal trainings with more than 100 participants involved. We also organized employees into taking part in the ESG Practice and Experience Sharing Meeting of Public Companies held by Jiangsu Association for Public Companies, the ESG China Forum Winter Summit 2021 and other activities, to help employees to keep with the latest and in an effort to jointly enhance the Company's sustainability trend management.



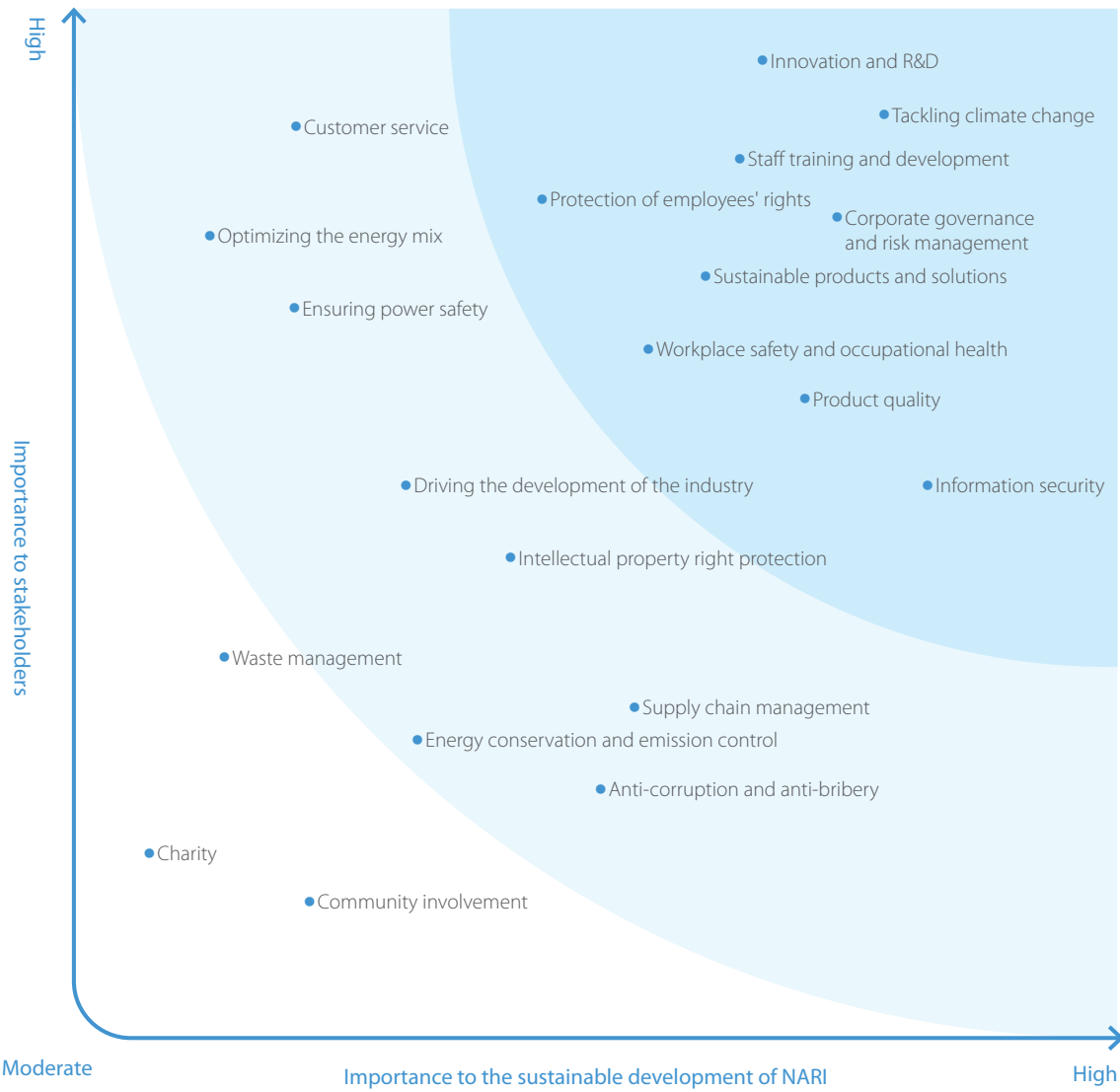
Stakeholder communication

At NARI, the opinions and suggestions of stakeholders are highly valued. Promoting stakeholder exchanges is viewed as an integral part of our sustainability management. We have established a regular communication mechanism consisting of our official website, WeChat official account and other platforms, as well as meetings, regular visits, and satisfaction surveys, to promote exchanges with stakeholders and fully understand their expectations and demands. During the Company's day-to-day operation and decision-making process, we take consideration of stakeholders' concerns and suggestions, in a bid to enhance their understanding, recognition and support of the Company.

Stakeholders	Expectations and demands	Communication and response
 Government / Regulatory authorities	<ul style="list-style-type: none"><li>Legal compliance</li><li>Paying taxes in accordance with legal requirements</li><li>Promoting economic development</li><li>Ensuring power safety</li><li>Optimizing the energy mix</li><li>Promoting employment</li></ul>	<ul style="list-style-type: none"><li>Abiding by the laws and regulations</li><li>Paying taxes in accordance with legal requirements</li><li>Policy implementation</li><li>Accepting supervision and assessment</li><li>Implementing national strategies</li><li>Providing jobs</li></ul>
 Shareholders / Investors	<ul style="list-style-type: none"><li>Standardizing corporate governance</li><li>Sustainability performance</li><li>Enhancing profitability</li><li>Safe and sound operation</li><li>Transparent information disclosure</li><li>Protecting the interests of shareholders</li></ul>	<ul style="list-style-type: none"><li>Improving corporate governance</li><li>Promoting business development</li><li>Strengthening internal control and compliance</li><li>Carrying out enterprise risk management</li><li>Improving information disclosure</li><li>Generating stable dividend</li></ul>
 Customers	<ul style="list-style-type: none"><li>Providing reliable technology and equipment</li><li>High quality service</li><li>Response to demands</li><li>Information security</li></ul>	<ul style="list-style-type: none"><li>Strengthening product quality control</li><li>Enhancing the ability of technological innovation</li><li>Setting up a customer service center</li><li>Improving service capability</li><li>Improving customer complaint management</li></ul>
 Suppliers	<ul style="list-style-type: none"><li>Fair and transparent</li><li>Contract fulfillment with integrity</li><li>Sustainable procurement</li></ul>	<ul style="list-style-type: none"><li>Practicing transparent procurement</li><li>Timely payment for goods</li><li>Providing supplier training</li><li>Conducting supplier audit</li></ul>
 Employees	<ul style="list-style-type: none"><li>Safeguarding legitimate rights and interests</li><li>Ensuring health and safety</li><li>Improving the compensation and benefits system</li><li>Training and development</li><li>A rich after-work life</li></ul>	<ul style="list-style-type: none"><li>Equality in hiring process</li><li>Improving the compensation and benefits system</li><li>Providing a healthy and safe working environment</li><li>Career path development</li><li>Building a training system</li><li>Organizing cultural and sports activities</li></ul>
 Media	<ul style="list-style-type: none"><li>Information disclosure</li><li>Media interaction</li></ul>	<ul style="list-style-type: none"><li>Receiving researches and interviews</li><li>Organizing tours</li></ul>
 Communities / The public	<ul style="list-style-type: none"><li>Ecological protection</li><li>Community development</li><li>Charity</li></ul>	<ul style="list-style-type: none"><li>Strengthening environmental management</li><li>Tackling climate change</li><li>Promoting energy conservation and emission control</li><li>Practicing green office</li><li>Supporting community development</li><li>Carrying out charitable activities</li></ul>
 Industry associations / Scientific research institutions / Partners	<ul style="list-style-type: none"><li>Industry development</li><li>R &amp; D and business innovation</li><li>Win-win cooperation</li></ul>	<ul style="list-style-type: none"><li>Participating in industry exchanges</li><li>Participating in the formulation of standards</li><li>Carrying out strategic cooperation</li></ul>

Materiality analysis

NARI collects and sorts feedback and suggestions from our customers, shareholders, employees, partners, media and other stakeholders in a timely manner. Then we seek advice from the management, benchmark our company against relevant international and domestic sustainability standards, organize internal and external experts to do research, and obtain information from day-to-day operations. On this basis, we have identified, evaluated and selected material topics in light of national policies, hot topics in industries and our strategic priorities, and then formed the materiality matrix based on their importance to the Company and stakeholders. In addition, we would formulate and implement action plans targeting material topics and disclose the key contents in the report.







## Ensuring Stable Operation through Integrity and Compliance

As the cornerstone of the healthy and stable corporate development, good corporate governance is the guarantee for core competitiveness enhancement and sustainable development of a company. NARI upholds integrity and compliance during management and operation and is committed to building a sound corporate governance system based on a multi-faceted governance structure. We continuously optimize internal compliance and risk management systems for better corporate governance and risk control capabilities, so as to promote the Company's stable and efficient operation and healthy and sustainable development.



Corporate governance

NARI strictly abides by the *Company Law*, *Securities Law*, *Code of Corporate Governance for Listed Companies*, *Rules Governing the Listing of Stocks on Shanghai Stock Exchange* and other governing laws, regulations and regulatory documents. We have accordingly improved the enterprise system and the corporate governance structure to regulate corporate operations. Now our corporate governance structure is well-regulated and reasonable, with clearly-defined rights and responsibilities. The General Meeting of Shareholders, Board of Directors, Board of Supervisors and the management dutifully fulfill their respective responsibilities and work together to promote the healthy and sustainable development of the Company, and effectively protect the legitimate rights and interests of the Company, customers, shareholders and employees.

In 2021

2 General Meetings of Shareholders were held, in which 20 proposals were deliberated

12 Board meetings were held, in which 52 proposals were deliberated, including the Annual Report and CSR Report

The General Meeting of Shareholders is the Company's highest authority. It is convened in strict accordance with relevant laws and regulations, the *Articles of Association*, and *Rules of Procedures for the General Meeting of Shareholders* to ensure that all shareholders have equal rights to know and make decisions on major matters, thus protecting their legitimate rights and interests. The decision-making procedures for the Company's related transactions shall strictly abide by laws and regulations, the *Articles of Association*, and other relevant provisions. All related transactions are deliberated and approved by unrelated directors and unrelated shareholders. Related directors and related shareholders shall abstain from voting. The transaction shall be fair and reasonable and shall not infringe upon the interests of unrelated shareholders.

The Board of Directors consists of 11 directors, including one female director, all with a strong professional background in their respective field or rich experience in corporate management. The Company has 4 independent directors. They independently perform duties and powers in accordance with the *Articles of Association*, *Working System for Independent Directors* and other regulations, give independent opinions on major matters such as related transactions, selection and appointment of directors and senior management personnel, use of raised funds, equity incentives, etc., to protect the rights and interests of the Company and minority shareholders. Under the Board of Directors are four specialized committees: Strategy Committee, Audit Committee, Nomination Committee, and Remuneration & Appraisal Committee. In the Audit Committee, Remuneration & Appraisal Committee and Nomination Committee, two thirds of the members are independent directors, including the convener. The rules of procedure of the committees stipulate that the matters for deliberation shall be approved by more than half of the committee members to ensure the three committees operate independently and professionally. In 2021, the Company's specialized committees held 16 meetings to deliberate on 32 proposals related to equity incentives, selection and appointment of directors and senior management personnel, internal control, executive remuneration, and related transactions, providing scientific and reasonable suggestions for the decision-making of the Board.

The Board of Supervisors is the Company's supervisory body, consisting of six supervisors, including two supervisor representatives elected by employees through democratic procedures. It supervises the financial status, fund raising, related transactions, regular reporting, and the compliant performance of duties by the directors and senior management personnel, and safeguards the legitimate rights and interests of the Company and shareholders.

The Company's senior management consists of eight senior managers. They actively implement the decisions and arrangements of the Board of Directors and the General Meeting of Shareholders and performs duties in accordance with the *Company Law*, *Articles of Association* and *Working Rules for General Managers*.

Compliance management

NARI upholds business integrity, constantly strengthens the compliance management system, regularly sorts out and strictly observes all applicable laws and regulations and industry norms. We also actively guard against major compliance risks, and organize compliance training sessions at different levels to raise the employees' awareness, and ensure compliance in our business operation and management.

Advancing the compliance management system

The Company continues to advance its compliance management system, strengthen consultation review and legal review of the compliance management policies of various domains to consolidate the policy foundation. As part of our efforts to improve the compliance system, we have formulated and published three *System Manuals* for company leaders, employees and new hires to promote the implementation of rules and regulations. The legal compliance review mechanism for major decisions has been improved with a standardized review process to enhance quality and efficiency and ensure the major decisions are legally compliant.

Strengthening overseas business management

To strengthen the compliance management of overseas business, the Company has formulated and implemented the *Compliance Review Mechanism for Overseas Engineering Projects and Product Export Business* which embeds compliance review into the bidding review process for risk prevention. We keep a close eye on the updates of overseas compliance policies and have published the *Guidelines for Overseas Business Compliance* to establish and improve the compliance review process of overseas business. Furthermore, the overseas legal compliance risk evaluation is launched, with 13 legal compliance risks in six categories identified and specific measures adopted for each risk item, thus improving the effectiveness of risk handling.

Fostering a strong compliance culture

The Company offers compliance trainings at different levels, organizes all employees to sign the *Letter of Commitment*, which specifies the compliance responsibilities with regard to legal system, contracts, safe production, environmental and intellectual property right protection code, data confidentiality, etc. An online legal compliance platform has been set up, and new media platforms are being expanded for publicity. We have also organized theme activities of World Consumer Rights Day (March 15), World Intellectual Property Day (April 26) and National Constitution Publicity Day (December 4), and collected themed art works from employees, creating a sound cultural atmosphere.

In 2021

110+ Compliance trainings were organized, with 14,500+ participants attended

Note: For more information on corporate governance, please refer to the *NARI Annual Report 2021*



▮ Risk prevention

NARI attaches great importance to risk prevention and control and has formulated the *Measures for Enterprise Risk Management and Internal Control*. The Company continues intensifying efforts in risk control. A risk control system that involves all personnel, all business sectors and the entire process has gradually taken shape, aiming to collect, predict, evaluate, monitor, report, check and rectify the risks facing the Company. Meanwhile, we have doubled our efforts and improve our capability to track and guard against potential risks, in order to facilitate sustainable and sound business operation.

Risk management

In 2021, the Company formulated 55 work plans on risk control with specific measures and timelines, and regularly tracked the progress of the plans to ensure the strict implementation of each task. An annual risk assessment was conducted, during which all functional departments were asked to grade the risks in their domains. Heads of departments were invited to take a risk interview to scientifically assess the major risks of the year based on both qualitative and quantitative indicators of operation and management. Then, targeted countermeasures were developed. The Company carried out six face-to-face risk control training sessions for leaders to help improve the management’s risk control awareness and professional capability.

Internal control

NARI continues to optimize its internal control system to ensure its efficiency. In 2021, the Company sorted out the compliance and feasibility of business processes, and updated the internal control manual, supervision and evaluation manual and code for employees to perform their duties, further defining the processes and steps, risk items and management requirements of various businesses and positions. This helped promote staff’s performance of duties and effectively prevent daily operation risks. Moreover, we carried out in-depth internal control supervision and evaluation and organized all subsidiaries to comprehensively examine and rectify their own internal risk control policies and deficiencies, key areas & processes, and fund management. The on-site internal control evaluation of 9 subsidiaries were completed, focusing on the effectiveness of design and execution of internal control measures for key operation, such as R&D, sales and supplies. Also, targeted rectification measures were identified to promote deficiency management and continuously optimize the internal control system.

Internal audit

In major business areas, the Company pays specific attention to the effective exercise of authority and internal control of risk management process and key positions. We strive to improve the effectiveness of audit as a means of supervision. By leveraging internal audit to promote the modernized corporate governance system and governance capabilities, we seek to facilitate standard internal management, regular risk prevention in an effort to support high-quality development of NARI.

▮ Anti-corruption and anti-bribery

NARI scrupulously abides by business ethics and promotes fair competition. We strictly observe the *Anti-Unfair Competition Law* of the People’s Republic of China, *Interim Provisions on Banning Commercial Bribery*, and other relevant laws and regulations, and oppose any form of corruption and commercial bribery. In 2021, there were no corruption related lawsuits involving the Company.



Supervision and inspection

The Company continues to develop the anti-corruption system, optimize the supervision, inspection and restriction mechanism for combating corruption, and inspect the results of anti-corruption work in the form of follow-up audit or post audit. At the same time, risks in key areas and key procedures are identified and investigated to identify the rights and responsibilities of risk control tasks, thus effectively enhancing the effect of risk hedging and supervision.



Honest practice

The Company demands all employees and third parties conducting business on behalf of the Company to abide by the host country’s laws and regulations governing anti-corruption and anti-bribery, sign the integrity agreement with partners, and pass on them the Company’s anti-corruption and anti-bribery requirements.



Anti-corruption training

The Company provides regular anti-corruption training and education activities for all employees. By means of monthly report on integrity publicity, anti-corruption knowledge contest and online anti-corruption training, an all-round publicity and education platform is created to convey the management requirements to all employees, raise employees’ anti-corruption awareness and foster a clean and self-disciplined corporate culture.



Whistleblower protection

The Company has formulated the *Measures for Handling Whistleblowing in the Name of Discipline Inspection and Supervision*, opened a whistleblower hotline and email box, and clarified the complaint handling procedures, processing duration and settlement criteria. All whistle-blowers are treated confidentially to avoid information disclosure and protected from any form of retaliation.

NARI anti-corruption reporting channel

Tel: 86-025-81092966  
Email: jjxf@sgepri.sgcc.com.cn



## ▶ Rights and interests of investors

Upholding the corporate values, NARI has a strong sense of responsibility to “respect, revere and protect investors” in our business development. We actively safeguard the legitimate rights and interests of investors, disclose company information timely, accurately and fully to showcase the Company’s development highlights and business performance, and share values with our investors.

### Information disclosure

The Company fulfills the obligation of timely information disclosure in strict accordance with laws, regulations, regulatory requirements, and the *Administrative Measures for Information Disclosure Affairs*, and continuously improves the quality and effectiveness of disclosed information. Driven by China’s decarbonization goal (achieving carbon peak at 2030 and carbon neutrality at 2060) and the ambition to build a new electric power system, the Company has made its information disclosure more readable based on industry characteristics and product features, showcasing NARI’s development highlights. In 2021, the Company disclosed a total of 122 documents, including four regular reports, 69 interim announcements, and 49 other documents, with no revisions or supplements made. We were rated Class A by Shanghai Stock Exchange for the seventh consecutive year in terms of information disclosure.

### Investor communication

The Company attaches great importance to investor relation management and seeks to build a multi-tier investor relations platform to ensure high-quality services to investors. According to the development plan and internal research results, we closely follow up with and analyze national policies and new developments in the industry and maintain timely and effective communication with capital market players through performance briefings, teleconferences, on-site surveys, phone calls with and emails to investors, and the SSE-Interactive platform.

 In 2021

- ◆ **192** Investor exchange activities were conducted Including **34** Securities brokers’ strategy meetings **106** Teleconferences **52** On-site surveys
- ◆ **117** Questions were answered on the SSE-Interactive platform, With **100** % response rate



Case

### Performance briefings make communication more efficient

In 2021, NARI held the 2020 annual performance briefing and the 2021 semi-annual performance briefing at the SSE Roadshow Center. The Chairman, General Manager and Board Secretary attended the briefings and communicated with investors on 46 topics that investors concerned most, such as the Company’s development and business performance. They serve as a communication bridge for investors where they can quickly and accurately grasp the key information disclosed by NARI, and understand our overall development status, thus enhancing their recognition of NARI’s corporate values and business philosophy. In 2021, we won the Best Practice Case Award for Annual Performance Briefing of Public Companies 2020 granted by the China Association for Public Companies.



2020 Annual Performance Briefing of NARI

### Return to shareholders

The Company attaches great importance to the return to investors. By the end of 2021, we have given out RMB 9.346 billion in cash dividends since our listing 18 years ago, with an average dividend rate of 36.68% and a dividend rate of 40.85% over the past five years. In 2021, the Company implemented the 2020 equity distribution (every 10 shares was converted to 12 shares with RMB 4.2 cash dividends), and distributed RMB 1.941 billion in cash, accounting for 40% of its profit for the year.







## Driving Development through Technological Innovation

Science and technology underpin the prosperity of a country, gain competitiveness for a company, and create a better life for people. NARI bravely undertakes the mission of the era to be self-reliant and self-dependent in technology. Anchored by "one pursuit and six highlands" (which refers to pursuing the goal of being world-leading, and gaining an edge in technology, industry, talents, reform, safety and ideas), we insist on independent innovation, improve the innovation management system, and strengthen technological research, to develop innovative products with advanced technologies. Focusing on industry development, we work to create the environment for collaborative innovation, build a powerful engine for technological innovation, develop a leading ecological chain for innovation throughout the process of "basic research, technical breakthrough and commercialization of R&D achievements", endeavoring to become an industry leader in Energy Internet.

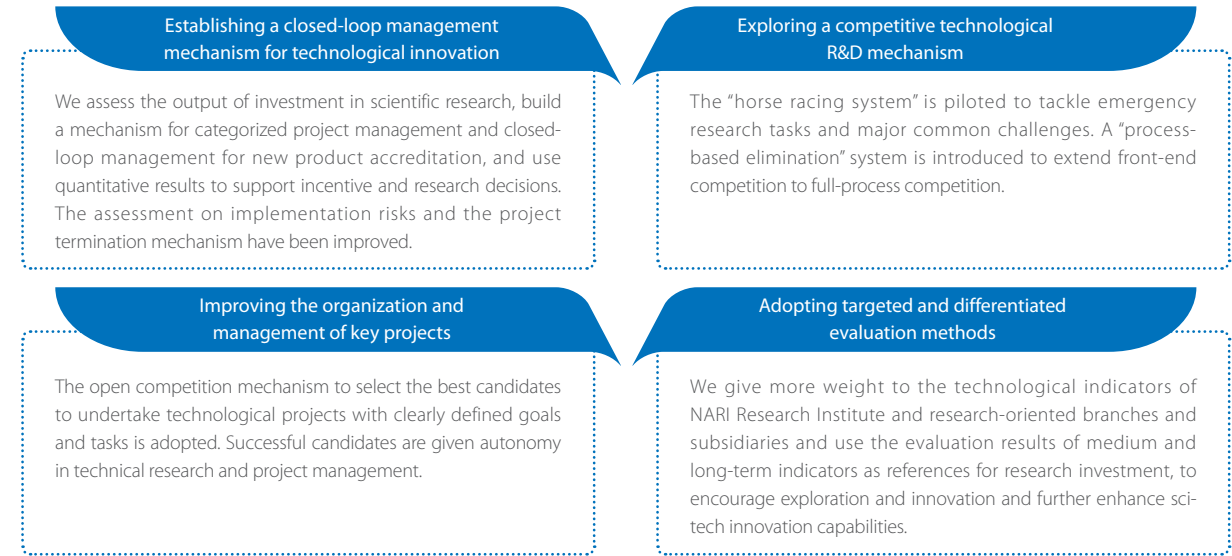


Technological innovation management

NARI drives high-quality development through technological innovation and continues to improve the management of technological innovation. With a clear understanding of market demands, we have established a R&D system featuring “clear positioning, strong support, opening and sharing, and efficient collaboration”, optimized the processes and methods of innovation management, and increased R&D investment to improve the quality and efficiency of development.

Improving management mechanisms

The Company has introduced R&D related policies, workflows and assessment schemes, and established the management systems such as *Management Measures for Technology Development Projects* and the *Management Measures for Technological Achievements Appraisal* to provide institutional support for managing technological innovation. We implement the *New Leap and Forward Action Plan*, and strengthen R&D reform. We empower the researchers and lighten their paper-work burden. Incentive plans and supporting assessment methods have been formulated. Institutional barriers on technological innovation have been removed. We are gathering strengths and resources and further implementing the open competition mechanism to select the best candidates to undertake key technology research. We promote the incentive mechanism for innovation. We polish up the technological evaluation mechanism and upgrade the laboratories and experimental research systems to stimulate innovation with organizational guarantee.



NARI optimizes the management mechanism for technological innovation



Increasing R&D investment

The Company continues to increase R&D investment. Knowing the personnel strength, we implement the top-notch talent leadership program and young talent support program, deepen the equity and dividend incentive mechanism, and build platforms for forums, workshops, technology awards, etc., to line up a group of top technological talents for innovation-driven and high-quality development.

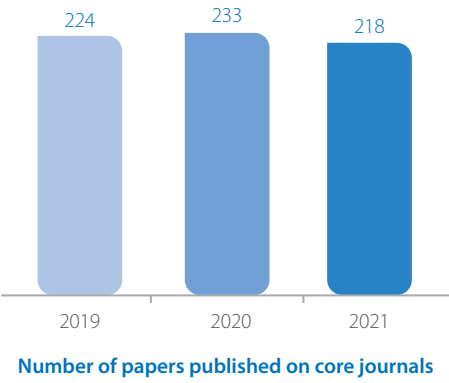
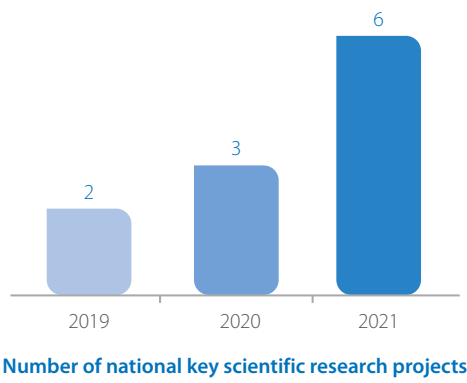
Indicator	2019	2020	2021
R&D Investment (RMB billion)	2.212	2.523	3.089
R&D investment as a percentage of revenue (%)	6.82	6.55	7.28
R&D technicians (headcount)	2,505	2,973	3,249
Proportion of R&D technicians (%)	30.51	33.76	34.02

R&D of product technology

In the spirit of “striving for excellence”, we accelerate the R&D of independent and controllable core technologies and equipment for all processes and fields including power generation, transmission, transformation, distribution, utilization and comprehensive energy. Centering on clean and low-carbon development and a new electric power system, we carry out theoretical research, technical research, equipment R&D and engineering practices accordingly. We develop the clean technology products to promote the consumption of clean energy and focus on research on key technologies to develop advanced technology products, so as to serve high-quality economic and social development.

Scientific R&D outcomes

Giving full play to our strengths in control technology and information technology, and focusing on the big data, cloud computing, IoT, mobile Internet, artificial intelligence (AI) and blockchain technologies, we are committed to enhancing power grid regulation, promoting the consumption of clean energy, and bringing down power grid construction cost. Multiple new achievements and breakthroughs have been made in technological innovation. In 2021, the Company was awarded 101 S&T awards, including one national award and 61 provincial/ministerial level awards. 29 of our research outcomes passed the authoritative appraisal organized by the Chinese Society for Electrical Engineering, of which 28 are at global forefront.



## New progress in product technology

### Key technology for the differential protection for complex grids.

We have made breakthroughs in the key technologies for complete sets of protection devices such as transmission lines and large-capacity transformers and developed a differential protection technology system for complex power grids, which is self-adaptive to different protection objects, application scenarios, and fault evolution processes. With greatly strengthened fault detection ability, shortened response time, and improved reliability, it has transformed China's power grid protection system to one that mainly relies upon differential relays. The research outcome has been widely applied in China's 220kV to 1000kV power grids of various voltage levels, covering such important projects as new generation of phase modulation unit projects, offshore wind power projects, and Sichuan-Tibet Interconnection Project. In 2021, the key technology and application of differential protection for complex power grids won the second prize of the State Technological Invention Award.



NARI's R&D team receives the award in the Great Hall of the People in Beijing

### High-power IGBT device for power systems.

The Company has overcome the technical challenges of low reliability and poor convergence and successfully developed the 3300V/1500A IGBT device, which is applied in the Xiamen Flexible DC Converter Station. It marks a major breakthrough in the key power grid devices and is of milestone significance. We have pooled our resources and developed a series of product lines in medium and high-voltage IGBT devices and built a world-leading production line for the packaging and testing of IGBT modules using welding techniques with an annual production capacity of 200,000 pieces. The device will serve the flexible AC and DC transmission, new energy power generation and other fields, facilitating technological advancement, transformation and upgrading of the entire energy and power industry chain.



The production line of the packaging & testing of IGBT modules

### A new-generation dispatching technology system.

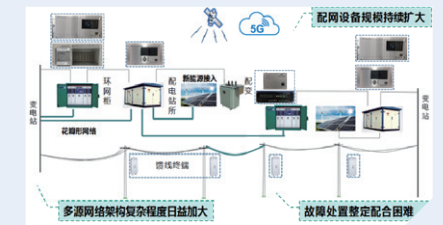
To support the new electric power system and create a "smart brain" for power grid operation control, the Company has developed a new-generation dispatching technology system, in which, the operation control and cloud computing are coordinated, the model and data are combined, and the four subsystems (energy management, stock market, new energy forecasting, dispatching management) are collaborated with each other. The system serves the operation control goal of "more solid information perception, more accurate real-time dispatching, smarter online decision making, more scientific operational organization, friendlier human-machine interaction, and stronger platform support" of the new power system. It is designed to facilitate the green, low-carbon, safe and efficient operation of the energy system, and support the security of bulk power system, consumption of clean energy, market-oriented transformation of dispatching control services, and coordinated regulation of power sources, grids, loads and storage.



R&D of the pilot project of the new-generation dispatching technology system

### The technology that protects and controls the connection of distributed new energy resources to the distribution grid.

We have developed key technologies to integrate 5G real-time and quasi-real-time business data and to handle on-site fault rapidly. Our 5G differential protection and 5G distribution grid self-healing terminals have been applied in several demonstration projects in Jilin, Chengdu, and Yinchuan, etc. It effectively solves the technical problems of protecting and controlling the connection of distributed new energy resources to the distribution network, improves the network's safe and controllable operation, promotes the connection and consumption of distributed energy resources, and serves the healthy and sustainable development of the new energy industry.



Typical application scenarios of the technology that protects and controls the connection of distributed new energy resources to the distribution network

### Multi-scenario integrated energy service technologies and products.

We have made a breakthrough for precise and orderly control of deployable resources and developed a power load control system with a large-scale application in Jiangsu, Zhejiang and other provinces. We have made breakthroughs in technologies like auxiliary decision-making for electricity purchase and sales, developed a smart electricity sales operation system, and applied it primarily in Shanxi Comprehensive Energy Co., Ltd. Breakthroughs have also been made in the operation and maintenance (O&M) management technology for integrated energy substations. An integrated energy substation O&M management system has been developed and put into pilot application in China's first zero-carbon pilot substation—the 110kV Gaoxiang Substation in Wuxi, to promote the green and low-carbon transformation of the energy industry.



Power load control system



### Case

#### Fully supporting the energy digital transformation

To facilitate the digital and intelligent transformation and upgrading of China Energy Investment Corporation (China Energy) and improve its operation efficiency, NARI has taken full advantage of its leading technology and rich experience in the digital transformation of power grid, and built an elite team consisting of nearly 300 specialists from 8 subsidiaries to complete the development of six functional modules, including operation plan, intelligent dispatching, balance model, online monitoring, statistical analysis, and large-screen visualization. Making full use of big data, cloud, IoT, AI and blockchain technologies, we have created a world-class intelligent platform for coordinated dispatching, which features "integrated and centralized control, intelligent and efficient coordination, and highly visual integration", providing strong support to the digital transformation of China Energy. The project won China Energy's only 2021 Special Award for Science and Technology Process and became a benchmarking digital project in the energy industry.





IPR protection

The Company regards intellectual property right (IPR) protection as the basic means of stimulating innovation, the basic guarantee of the driving force for innovation and the core element of international competitiveness. We attach great importance to IPR protection and strictly abide by laws and regulations such as China's *Trademark Law*, *Patent Law*, and *Copyright Law*. The Company has formulated the *Administrative Measures for Legal Protection of Intellectual Property Rights*, actively protects the Company's IPR by applying for patents and software copyrights, respects and avoids infringing on others' IPR, and carries out IPR-themed activities to create an atmosphere of respecting knowledge and advocating innovation. In 2021, one of our patents—a method for rapid shedding of load after UHV DC blocking—acknowledged as "Excellence" of the 22nd China Patent Award.

Legal compliance

We actively implement various legal protection measures for IPRs, make every effort to protect our own IPRs from infringement in business activities such as IPR development, determination, use, confidentiality, transfer and cooperation, and maximize the IPR value. We manage the R&D and archiving procedures as well as the fruits of technological innovation in strict accordance to the CMMI regulations.

Systematic management

Multiple departments work together to manage and protect knowledge assets. On the basis of coordination and hierarchical audit management, we strengthen the hierarchical management of core patents. In the field of power system control and protection, we actively advance the development of the high-value patent cultivation center.

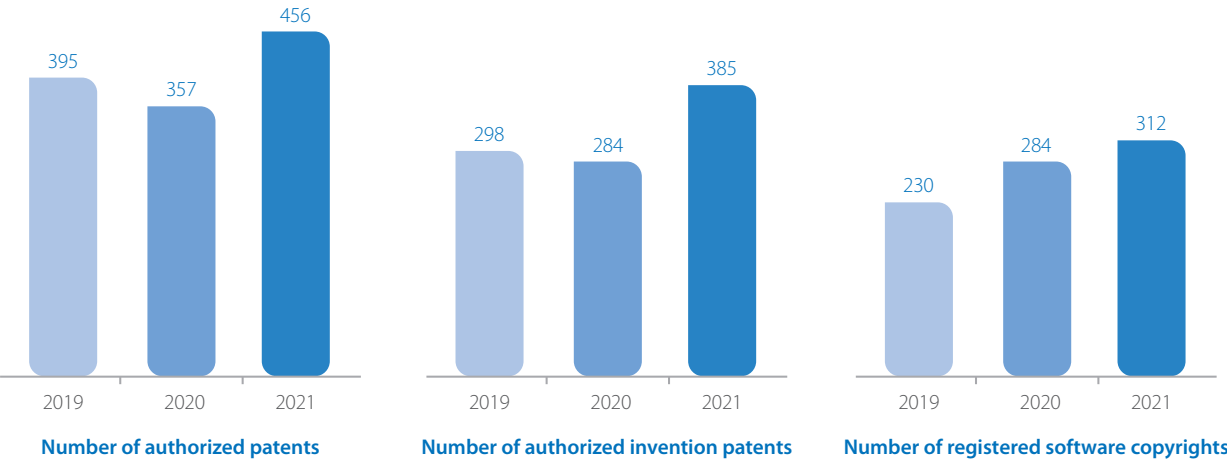
Empowerment in digital means

Digital means are adopted to strengthen the IPR management and protection of intellectual property. By virtue of the intelligent analysis means, such as artificial intelligence and knowledge map, we advance the internal analysis and better layout of IPR protection, and use the "IPR integration platform" to realize the all-round supervision and approval of IPR application, acceptance, authorization, certificate archiving, change maintenance and agency supervision.

Action guarantee

We conduct patent search and analysis in the fields of power transmission, power dispatching, grid stability control, relay protection, power distribution, power consumption, new energy power generation and flexible power transmission, and compile patent distribution reports to support innovative development. We are working to establish a comprehensive protection system covering enterprise technology and product patents, trademarks, copyright and trade secrets, to better protect our IPRs. We pay attention to the independent contribution of IPRs in new products to improve the conversion rate of IPRs.

Major measures for IPR management and protection



A leading role in industry development

Assuming the responsibility for industry development, NARI combines independent innovation with open cooperation and standardization. We seek wider external cooperation and more exchanges while developing our own technology, and contribute to the preparation of international and domestic industry standards, playing an important role in leading technological advancement in the industry and driving the development of the industrial chain.

Participating in standards preparation

The Company has led or participated in the preparation of standards in the fields of automation systems, energy storage, digital platforms, etc., and has been deeply involved in the development of the standard system of the new electric power system to promote the standardized development of the industry and assist in building a standardized industry ecology. In 2021, NARI led and participated in the compilation and revision of 9 standards, including three national standards, five industry standards, and one group standard, which effectively promoted the standard of technological progress and equipment manufacturing in the fields of smart substations, microgrid protection and control, and smart hydropower plants.

Strengthening exchange and cooperation

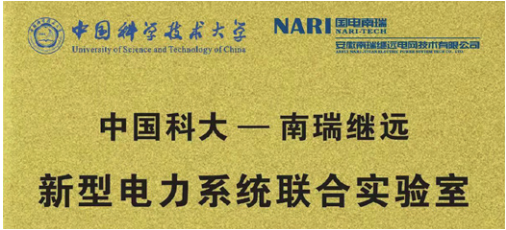
In good partnership with upstream and downstream enterprises, universities and research institutes in the industrial chain, we jointly conduct new technological research and apply and undertake scientific and technological projects at all levels. We have strengthened cooperation with universities and research institutes in talent training, research on emerging technology, etc., such as Tsinghua University, University of Science and Technology of China, Zhejiang University, Xi'an Jiaotong University, with an aim to accelerate the integration of the innovation chain and the industrial chain. In addition, we actively organize and attend industry forums and exhibitions, including the 4th Digital China Summit, the 2021 Annual Meeting of the Chinese Society for Electrical Engineering, and the 2021 China (Nanjing) International Software Product & Information Service Trade Fair. Thereby, we have close communication with industry partners, and seize new opportunities for development. Together, we write a new chapter of cooperation, helping foster a good ecosystem for industry development.



Case

Building a joint laboratory of new electric power system to promote mutual benefits

In October 2021, NARI and the University of Science and Technology of China held a signing and launching ceremony of the joint laboratory of new electric power system in Hefei. Committed to contributing to China's target of carbon peak and carbon neutrality, the laboratory will meet the R&D needs of the new electric power system, and rely on the "scientists + engineers" joint R&D team to promote basic research and technical research in the area of new energy application, electrochemical energy storage materials, etc. It will boost the integrated development of industries, universities, research institutes and application, and realize long-term mutual benefits and win-win development through advanced interdisciplinary and intercollegiate university-enterprise cooperation.

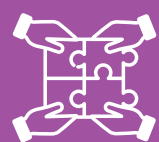
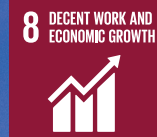


Case

Driving digital development at the online Nanjing soft Expo

In December 2021, at the 2021 China (Nanjing) International Software Product & Information Service Trade Fair (Nanjing soft Expo) themed "software defines and lights up digital engine", NARI presented three major features, namely smart operation, diversified energy use and safety & control, in the exhibition area of the Industrial Internet Pavilion. NARI's Chairman shared his insights into how digitalization empowers the development of the new electric power system as an entrepreneur, presenting the Company's latest achievements in the deep integration of digital technology and energy technology and showcasing the Company's leading technologies in the core fields of security and stability control, power grid dispatching, relay protection of bulk power grid, etc. Such industry exchanges are conducive to improving the Company's influence, driving the innovative development of the industrial chain, and creating a standardized and orderly industrial ecosystem that features integrated innovation and win-win cooperation.





## Striving for Excellence through Win-win Cooperation

Quality matters the most in the pursuit of excellence. In the spirit of craftsmanship, NARI continuously improves products and services. Taking safety and quality as the lifeline, we have established an integrated management system composed of eight standards of quality, environment, occupational health and safety, information security, IT services, measurement management, energy management and quality management for construction companies, making every effort to ensure the safe and healthy development of the Company. We seek presence in international markets step by step, actively serve the Belt and Road Initiative, and act upon the corporate purpose of “creating value and serving the society”.



Products and services

NARI meets customer needs with excellent technology, reliable products and high-quality services. We advance the top-level planning of the customer service management system as a whole, provide better customer services, and continuously enhance product quality and service standards, to improve customer satisfaction.

Product safety and quality

Being well aware of the role of NARI products in supporting the security of bulk power grid, the Company strengthens all employees’ awareness of grid security, pays attention to product quality risks, and sees that product safety responsibilities are fulfilled at all levels. We have published a list of key products for grid security, improved the quality control system for key products such as power dispatching, grid stability control, relay protection, information communication, and excitation, and formulated and implemented quality risk prevention and control measures in seven areas: product design, version control, on-site debugging, incident response, quality supervision, defect management, and safeguard of power supply, to ensure the safety of bulk power grid.

The Company has organized the Quality Month Campaign on such topics as quality system development, technical standards and production processes, and employee capability enhancement, and launched 96 quality diagnosis, improvement and research activities, to enhance the quality of technologies, products and services. The Company has passed the GB/T 19001-2016/ISO 19001:2015 quality management system certification, providing customers with high-quality products and services with a sound quality management system. In 2021, the Company’s first pass yield (FPY) reached 99.76%, and no product recall due to quality problems occurred.



Case

Implementing two-tier manufacturing supervision for key projects and products

Aimed at improving product quality and ensuring the delivery of key projects, NARI has established and improved the two-tier manufacturing supervision mechanism for key projects and products, so as to better implement manufacturing supervision requirements and related technical standards, and improve the operation process. Through hierarchical approval, witnesses and random inspections, we have completed the internal manufacturing supervision of more than 200 key engineering projects, effectively guaranteeing product quality of key projects.



Internal manufacturing supervision of smart substation protection products

NARI actively promotes quality through digital transformation. The Company has established the MES production management system for better production management and control. The *Business Structure and Functional Planning of the Cloud Quality Center* is improved as we completed the design, development, testing and launch of seven IT-based quality functional modules, including manufacturing supervision management, product sampling inspection, and monitoring & measurement equipment management. In addition, we have promoted the development of the “digital R&D and testing platform for protection, measurement and control equipment”, and achieved full coverage of automated testing of high-voltage protection devices, effectively improving the quality and efficiency of product R&D and testing.

What’s more, an intelligent manufacturing production line for information security products, an intelligent three-dimensional warehouse for components, an industrial control production line and an automatic testing workstation for devices are established and put into operation. Through product manufacturing supervision, inspection of standard compliance and quality assurance license, testing and sampling inspection based on product types, supply chain quality inspection and other methods, we continue to improve the internal third-party quality supervision mechanism to keep improving our product quality.

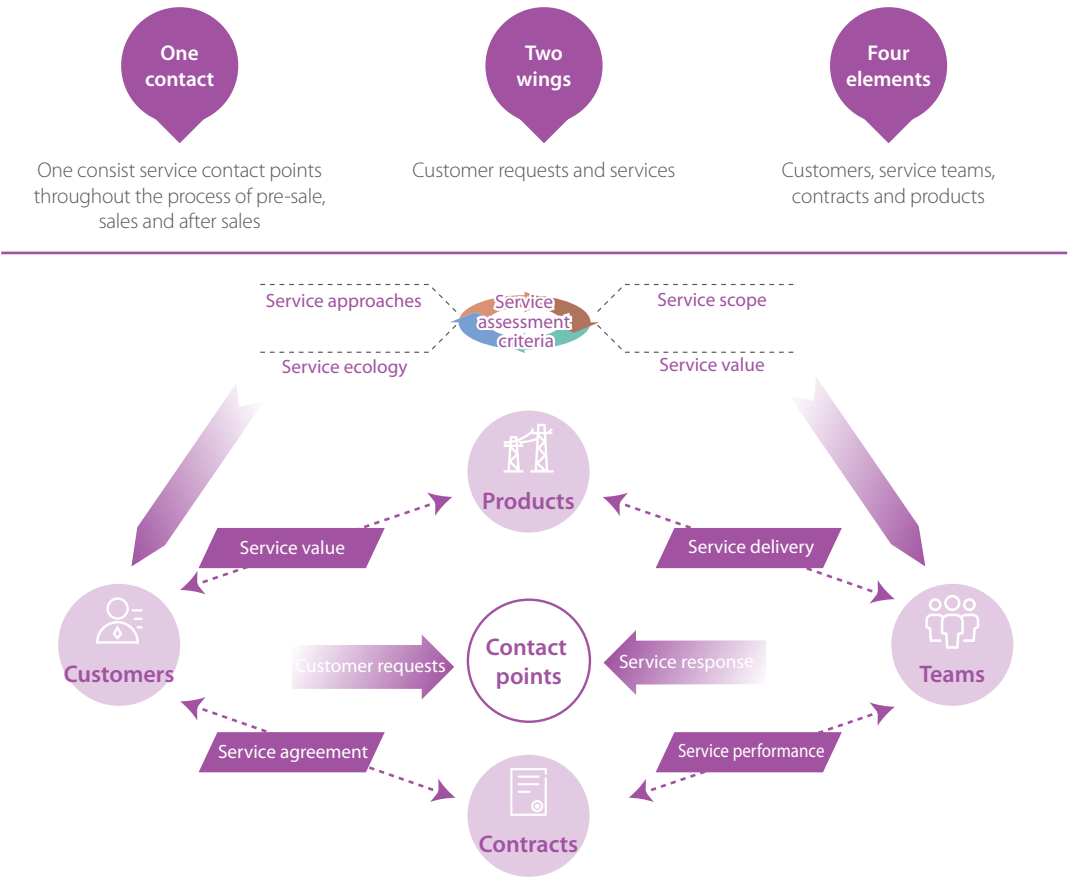
Customer service management system

The Company adopts a customer-centric approach in the process of market expansion, product development, production delivery, on-site services, and project management. We have developed a full-process double-wing management approach for customer service that covers the full life cycle from customer demand generation to value realization, and involves all stages including customer needs, contract performance and after-sales service. It also strengthens the coordinated management of centralized customer services that involve different disciplines, domains, and departments to achieve efficient and collaborative service support from multiple personnel, dimensions and levels. In 2021, the one-time settlement rate of the Company’s call center was 68.39%, and the customer satisfaction rate of the customer service hotline reached 98.96%.

Customer service management

Guided by the idea of “full coverage, key promotion, efficient coordination, and continuous improvement”, the Company advances the top-level planning of the customer service management system as a whole, and provides customers with more convenient, professional, and personalized services based on our “one contact, two wings, and four elements” customer service management structure, promoting the effective services delivered for customers, employees and industry development.

In compliance with Chinese laws, such as the *Advertising Law* and the *Law on the Protection of the Rights and Interests of Consumers*, we regulate the review mechanism for product technical information release, continuously strengthen responsible marketing management, and provide training on product information, industry development trends and technology for customers through online and offline channels to boost user experience. We have formulated the *Management Measures of Customer Service Supervision* and *Customer Service Hotline Business Process Specification* to strengthen in-depth communication with customers on the basis of customer service contact points management. We have put in place a complete contract performance mechanism and exercise full and meticulous control over the production process to effectively guarantee product and service quality. In 2021, relying on the CISP platform, we established a closed-loop service management system for users throughout sales process. The average settlement process for customer requests was shortened from 1.76 days to 0.95 days.



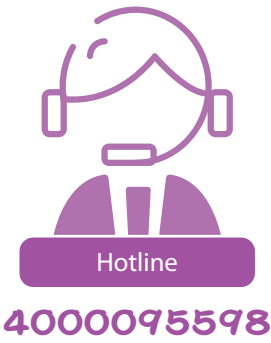
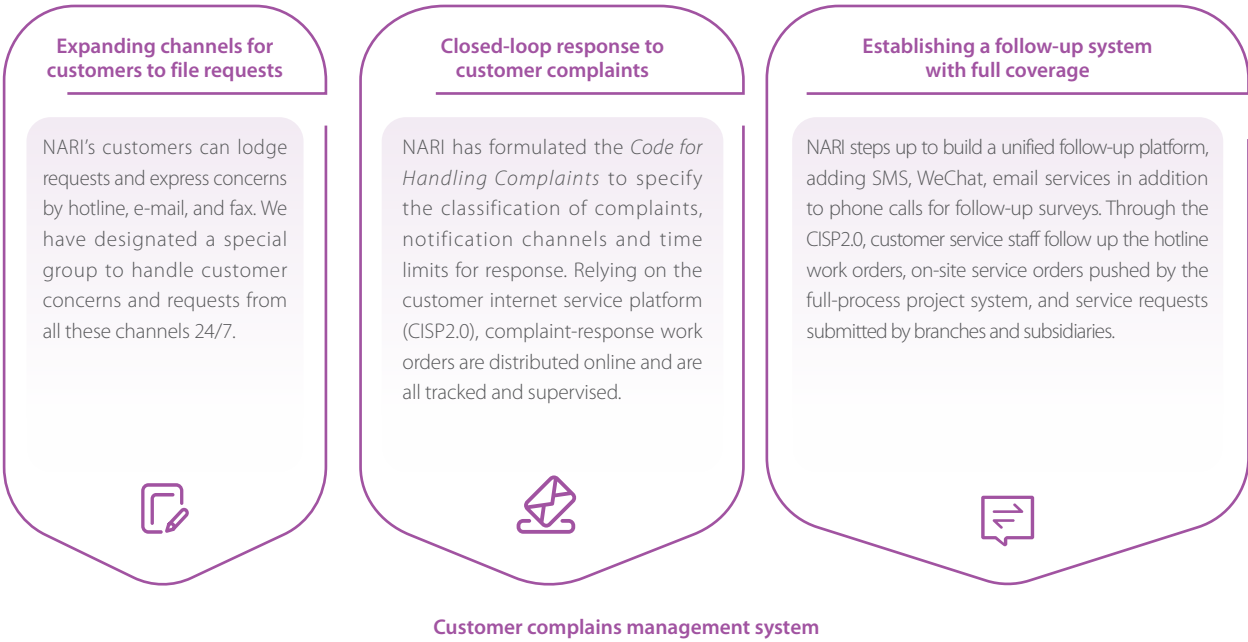
NARI’s “one contact, two wings and four elements” customer service management structure

Customer satisfaction

The Company has formulated the *Customer Satisfaction Survey and Evaluation Procedures*, *Instructions on Establishing a Regular Notification Mechanism for Customer Praise and Complaints*, *Management Measures of Customer Service Supervision* and other policy documents. Moreover, we have expanded channels for customers and would visit corporate clients for follow-up survey when conditions permit. The evaluation mechanisms and standards are improved to quantitatively assess the customer service quality. We have carried out third-party customer satisfaction surveys and self-assessments for ten consecutive years, continuously improving the customer service system as well as our customer service capability.

Customer complaints

The Company manages customer complaints in a unified and standardized manner in accordance with the *Code for Handling Complaints*. Immediate response is made upon the receipt of customer complaints. Specifically, we contact the customer within one working day, investigate and handle the matter and then reply to the customer within 3 working days. In 2021, our customer complaint resolution rate was 100%.



Workplace Safety

NARI regards safety as its lifeline and the philosophy of “prioritizing safety” is upheld by all employees through the entire business process. We have established a long-term mechanism for workplace safety, and consistently optimize the safety management system. The safety awareness among employees is raised and a safety-conscious culture is nurtured through education and training to underpin the corporate development.

Strengthening safety management

NARI puts safety first, prioritizes preventive measures and takes a multi-pronged approach to address safety issues. We take safety requirements into full consideration when introducing systems and mechanisms, continue to strengthen the management of safety targets, and strictly assign duties to ensure safety responsibilities are duly performed. The safety responsibility systems, workplace safety guarantee systems and supervision systems at all levels have been continuously improved. By the end of 2021, we had a total of 357 certified full-time and part-time safety management officers.

Major workplace safety management systems	
Type	Name
Emergency response	Contingency Plan for Workplace Safety Accidents
	Specification for Accident Investigation and Handling
	Contingency Plan for Major Engineering Projects-related Emergencies
Project management	Specification for Safety Management of On-site Engineering Services
	Specification for Safety Management of Overseas Projects
	Guide for Management of Safety Hazard Investigation and Handling
	Specification for Warning, Management and Control of Operational Safety Risks
	Specification for Safety Management and Control of General Contracting (Leasing) Construction Projects
Specification & inspection	Specification for Safety Supervision of General Contracting (Leasing) Construction Projects
	Guide for Safety Inspection
	Specification for the Management of Safety Signs and Warnings



Major measures for safety management

Guarding against safety risks

NARI focuses on the management of safety risks by enhancing the dual-prevention mechanisms. With all employees involved in danger source identification and risk evaluation, the Company comprehensively promotes the hierarchical risk management, carries out investigation and handling of safety hazards, and strengthens emergency management. In combination with management and technology, we strive to enhance our capability for full-process safety risk control and put the risks under control.

Investigation and handling of safety hazards

We carry out investigation and handling of safety hazards on a regular basis, and have achieved comprehensive coverage. For prominent problems and weak links identified, taskforces are set up to make sure that they are corrected and strengthened efficiently and effectively. In 2021, the Company further implemented the three-year rectification action on workplace safety, revised the *Guide for Management of Safety Hazard Investigation and Handling* and updated the two lists of potential problems and policy measures. A total of 39 safety inspections were carried out, and no injury, death or equipment accidents occurred throughout the year.



Case

Launching a special action to improve safety risk management

In 2021, the special rectification action on workplace safety entered a critical stage. NARI made special arrangements on workplace safety through safety committee meetings and regular workplace safety meetings, to consolidate the fulfillment of safety responsibilities and comprehensively improve risk management capacities. The Company strengthened internal systems, mechanisms, standards and capability, carried out safety inspections and oversight visits, and built a workplace safety risk management platform. Our safety training covered more than 26,000 participants, and hidden hazards were 100% detected and rectified.

Safety emergency management

NARI continuously consolidates the foundation for emergency management and formulates emergency plans for safety accidents. Based on our production and operation practice, we carry out emergency drills with clear focuses in diverse forms, in order to ensure rapid and targeted response to emergencies. We have established an emergency response team, organized training on emergency skills and held relevant drills on a regular basis. The effectiveness of the drills is assessed objectively and comprehensively. And we regularly summarize the experience to improve the response continuously. At the same time, we expand the use of high-tech equipment such as AI-empowered video surveillance systems, stock materials needed for emergency response, and ensure the emergency plans, emergency teams, and emergency equipment are all in place, comprehensively improving emergency response capabilities. In 2021, we organized 12 emergency drills such as flood control and firefighting.



Case

Fire drills enhance employees' ability of self and mutual aid

Using simulated combat settings, NARI organized a fire safety training and fire drill with the largest scale, the largest number of participants in November 2021. 75 people joined the firefighting drill and more than 2,600 people took part in the evacuation drill in NARI headquarter campus. The drill had greatly improved employees' fire safety awareness and escape skills in the event of a fire emergency, laying a solid foundation for the safe and smooth operation of the Company.



Firefighting drill

Protection of information security

In strict accordance with relevant Chinese laws and regulations, such as the *Cybersecurity Law*, and *Data Security Law*, the Company has established an information security management system and passed the GB/T 22080-2016/ISO/IEC 27001:2013 information security system certification. We have formulated and implemented the *Management Measures of Network and Information System Security* and other policies, compiled the *Employee Information Security Guide*, and organized employees to sign the *Letter of Cyber Security Commitment*. All of these ensure information security, protect customer privacy, and prevent the leakage of customer privacy and company information. In 2021, the Company carried out four cyber security drills and a series of information security activities, including cyber security publicity at the primary level and information security training, to popularize information security risks among employees and enhance their cyber security awareness as well as risk prevention and emergency response capability.



In 2021

- ◆ Coverage of signing of Information Security Responsibility Letter:

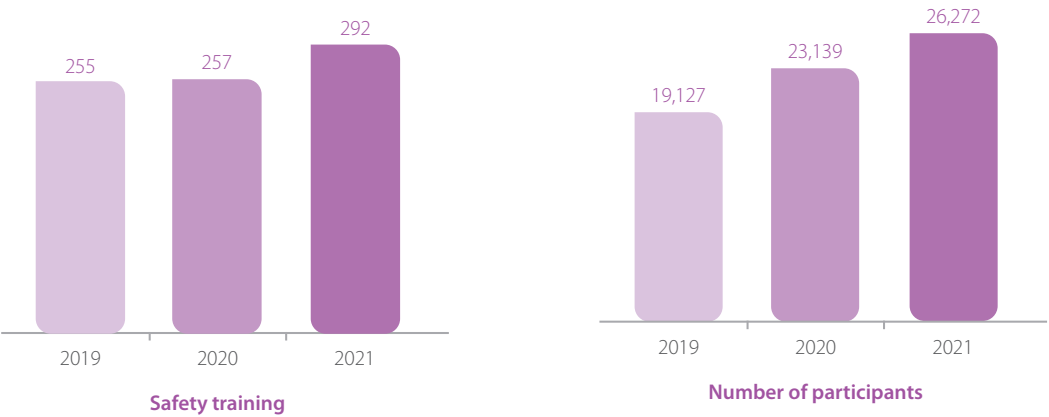
100 %

- ◆ Information security training coverage:

100 %

Fostering a safety-conscious culture

NARI develops a safety-conscious culture for all employees and firmly upholds the concept of safe development. We organize staff to study relevant laws and regulations, such as the *Amendment (XI) to the Criminal Law*, the *New Workplace Safety Law*, and the *Investigation Procedures for Safety Accidents*. We also provide special training on safe development, relevant stipulations and knowledge, to raise employees' safety awareness. In 2021, we organized 292 safety trainings to 26,272 participants in total.





A responsible supply chain

NARI always adheres to fair trade, fair competition, win-win cooperation, and coordinated development, and observes social responsibilities in the construction and operation of the supply chain. For suppliers, we safeguard their legitimate rights and interests, seek common development, and carry out trainings on electric power business, account security of supplier platform, etc. to improve their management capability, responsibility awareness and performance, building a sustainable and responsible supply chain.

In 2021

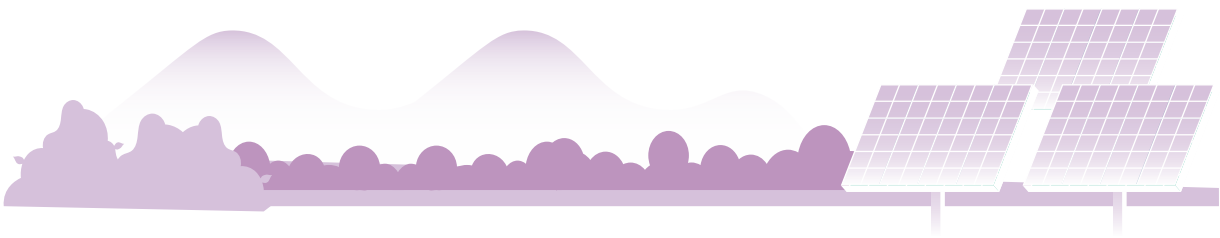
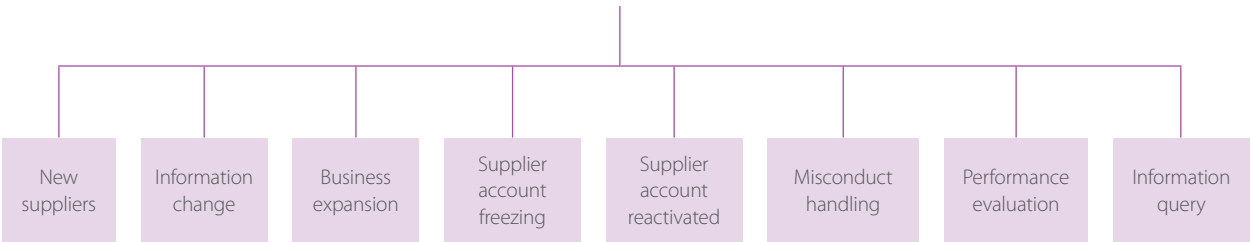
- ◆ 12  
Supplier trainings
- ◆ 100 %  
Contract performance rate
- ◆ 7  
Suppliers with misconduct removed

Supplier management

To guarantee “quality procurement”, NARI strives to improve the responsibility fulfillment of suppliers. The Company has formulated the *Supplier Relations Management Measures* to regulate suppliers’ behaviors on environment and society and clarify the procedures for supplier eligibility verification, performance evaluation, and misconduct handling. By special clauses in the contract, NARI passes our environmental protection, occupational health and safety management (OHSM) thinking to suppliers. We urge them to establish relevant systems and rules on workplace safety, risk prevention and control, pollution prevention, resource conservation, energy consumption reduction, environmental protection, labor rights etc. in compliance with national laws and regulations and relevant policies.

The Company has established a platform for full-process IT-based supplier management. Requirements on environmental protection, labor rights, OHSM, and business ethics are included in our supplier evaluation standard. Suppliers with misconduct will be identified, reviewed and eliminated in accordance with the Company’s regulations, realizing full life-cycle supplier management.

Supplier management platform



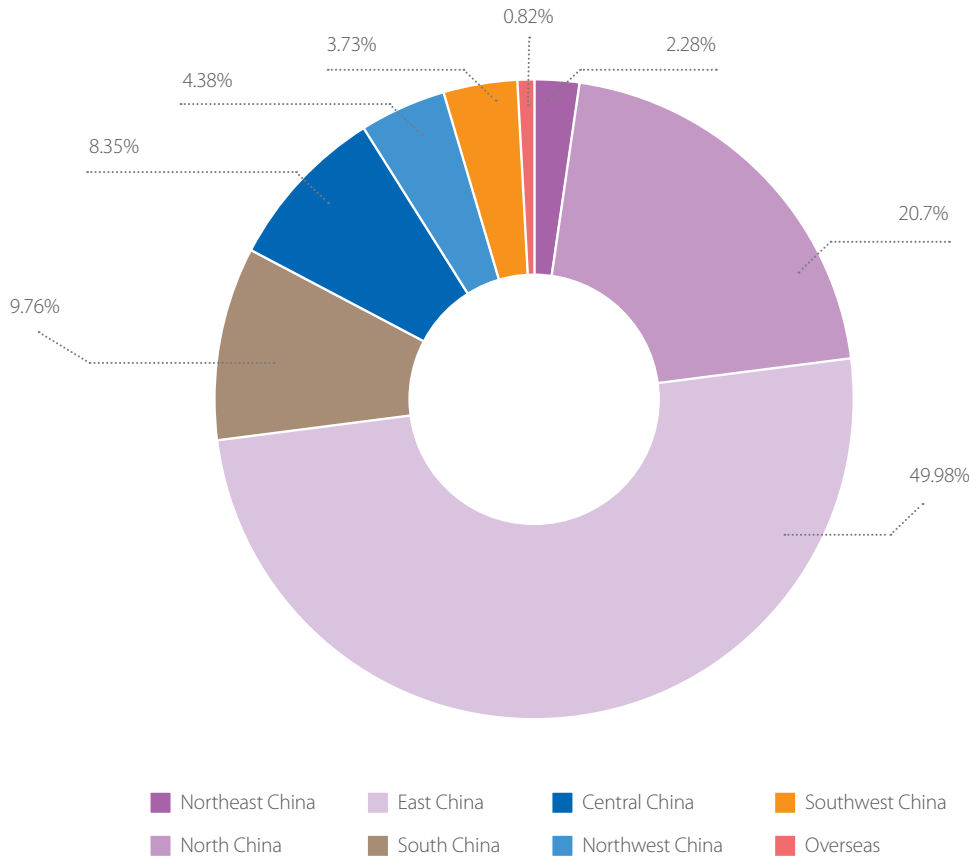
Responsible procurement

NARI invites public bidding during the procurement process, continues to expand the use of tendering/bidding for procurement, and regulates the procurement of non-production materials. The Company has formulated the *Management Measures of Procurement Activities*, requiring all suppliers and supplier verification officers to sign the *Letter of Integrity and Self-discipline Commitment* and requiring the officers to provide their integrity record. Experts who are involved in bid evaluation are requested to sign the *Letter of Integrity and Confidentiality Commitment* to prevent corruption and commercial bribery. In addition, the procurement process control for overseas projects is strengthened to facilitate the standardization of procurement and maintain smooth purchasing process.

In 2021

- ◆ 8,794  
Suppliers in total
- ◆ Assessment coverage:  
100 %

Endeavoring to build a green supply chain, NARI has vigorously promoted platform-based procurement activities and completed the online arrangement of centralized procurement, materializing open, transparent, standardized and orderly management for supplies. The Company also adopts “virtual” bid evaluation and encourages bidders to choose energy-saving and energy-efficient products to minimize the environmental impact.



Number of suppliers by region



## International cooperation

Embracing the historical trend of economic globalization, NARI strengthens international exchanges and cooperation, supports the high-quality development of the Belt and Road Initiative (BRI), expands overseas markets in an orderly manner, continues to optimize the layout of overseas organizations, and steadily promotes the “going global” process of Chinese technology and equipment. The Company has actively conducted international exchanges in the security and stability of bulk power system, and electric vehicles, etc., participated in the activities organized by IEEE and other international academic organizations, and attended influential international conferences in the industry such as Intelligent Transportation, to continuously promote our reputation and influence. We have offices in Egypt, Chile, Ethiopia and other countries and are doing businesses across Europe, South America, Asia and Africa. In 2021, the Company advanced the implementation of major projects such as the AMI project in Saudi Arabia, Matiari-Lahore HVDC power transmission project in Pakistan, and substation project in Greek, and successfully completed 44 overseas projects.



### Case

#### Providing technical support for Saudi Arabia's AMI Project

Saudi Arabia is an energy superpower and an important partner of China's BRI. The advanced metering infrastructure (AMI) project is a mega-project of Saudi government to deliver the energy conservation and emission reduction goals under the strategic plan for Saudi Arabia's Vision 2030. It is also one of the world's largest AMI project in terms of deployment scale. Undertaking the establishment of the head-end system for electricity consumption information collection, NARI has leveraged our experience, and overcome the COVID-19 pandemic to build the AMI system according to local conditions. We thus provided data support for energy consumption management and auxiliary decision making, designed a reading scheme for millions of meters using NB-IoT protocol, and applied hybrid access communication technology to realize real-time perception of network communication status for 7.5 million meters.



### Case

#### Supporting the commissioning of HVDC power transmission line project in Pakistan

In June 2021, the power grid security and stability control system developed by NARI supported the unipolar maximum load commissioning of the  $\pm 660\text{kV}$  Matiari-Lahore HVDC Transmission Line Project in Pakistan, marking a breakthrough in our “going global” process of core products and key technologies in power grid security and stability control. The 878km line is Pakistan's first HVDC transmission line with a transmission capacity of 4,000MW. After putting into operation, it will effectively alleviate the power shortage in Pakistan's most important economic center, Punjab Province and the capital Islamabad, and greatly promote the country's economic growth, and people's living standards. It is of great significance to the China-Pakistan Economic Corridor (CPEC) and the energy cooperation between the two countries.



### Case

#### Facilitating trial operation of Greece's island interconnection project

In April 2021, the Heraklion III Station in Greek island of Crete was successfully completed and officially entered the continuous trial operation stage. It is NARI's first power electronics EPC project in Europe, and our important move in implementing the BRI. It is of milestone significance in our practice in Europe's renewable energy, regional grid interconnection projects, and supporting the energy transition in Europe with high-end Chinese technologies and products.

Heraklion III Station is a vital supporting project of Greece's largest island interconnection project “Crete-Peloponnese Electricity Interconnection Project, Phase I”. After the completion, it can realize continuous and fast voltage stability control for the region, interconnect the electricity between Crete and Peloponnese, greatly reduce the electricity cost on the islands, effectively improve the isolated power grid operation, and bring about substantial environmental and economic benefits.







## Acting upon the 30·60 Decarbonization Goal for Green Development

Always prioritizing ecology and environment, integrating the concept of green development into its production and operation, NARI continuously improves the construction of environmental management system, adheres to low-carbon operation, actively acts upon global policy on addressing climate change, and give play to our strengths to promote the development of the clean energy industry, striving to lead green development and contribute our part to Carbon Dioxide Peaking and Carbon Neutrality.



Climate change response

Reducing greenhouse gas (GHG) emissions is vital to addressing global climate change, and the 14<sup>th</sup> Five-Year Plan period (2020-2025) is a critical period and a window period to peak carbon dioxide emissions. Based on the Company's actual situation, NARI has formulated the action plan of Carbon Dioxide Peaking and Carbon Neutrality, compiled the *Guide for Greenhouse Gas Management*. We have laid out the research methods for transitioning to low-carbon development of energy, widely used electricity as the alternative energy, promoted the application of energy-saving, emission-reducing and energy-efficient technologies, and proactively driven low-carbon, green and circular economic development in multiple ways, to contribute to the emission peak and carbon neutrality goals and unlock a new key to a green and low-carbon industry.

Action on climate change

Focusing on the goal of Carbon Dioxide Peaking and Carbon Neutrality, NARI actively responds to climate change, accelerates the construction of new power system, promotes clean energy development with advanced technology, reliable equipment and high-quality services. The Company act as a technical leader, a theoretical contributor and a pioneering practitioner in tackling climate change.

A technical leader

To establish a power system featuring heavy reliance on renewable energy and power electronics equipment and able to cope with the summertime and wintertime electricity consumption peaks, the Company has intensified technical research and equipment development and accelerated its pace to achieve technological breakthroughs in self-developed core devices, power grid security and stability, dispatch control, and clean energy consumption to support the transformation and upgrading of power grids.

A theoretical contributor

To transit to low-carbon energy, we have deepened the research on the framework of the Cyber-Physical-Social System in Energy (CPSSE), proposed research methods for low-carbon energy transformation and development, and increased cross-domain and inter-disciplinary integrated research, to strengthen the source of innovation and support low-carbon energy transformation.

A pioneer in actions

To build a green society, the Company has strengthened comprehensive energy services, widely used electricity as the alternative energy, and promoted the application of energy-saving, emission-reducing and energy-efficient technologies, proactively driving low-carbon, green and circular economic development in multiple ways to serve the general use of electricity in energy consumption.

Case

Supporting low-carbon energy transformation

Driven by innovation, NARI has deepened the research on leading, original and systematic key/core technologies in energy and power, proposed the research framework of the CPSSE, and developed the Carbon Management System (CMS) to facilitate the low-carbon transformation of energy.

The Company has developed three key technologies that enable electricity to actively support energy transformation, put forward the concept framework of the CPSSE, and established a cross-domain, multi-timescale and multi-dimensional collaborative, integrated analysis framework, realizing the decision-making of complex problems of energy-electricity-environment coordination. All these achievements have been successfully applied.

The Company has made breakthroughs in basic forward-looking research and key technologies in the industry and focused on the R&D of key technologies, system development and pilot application of the CMS that supports online monitoring, evaluation, early warning and decision making of carbon emission, carbon sink and carbon market, achieving integrated innovation of the whole energy value chain. So far, CMS has been put into operation in the power grid in Xingyi, Guizhou.

Analysis of risks and opportunities in climate change response

Type	Climate-related risks	Response
Transition risks	<b>Market risk</b> <ul style="list-style-type: none"><li>The demand of power grid, energy, and power generation and other industries for products and services that help mitigate and adapt to the climate change will grow. If we lag behind in this regard, we will have risks in losing the business and customers.</li><li>Strict environmental protection requirements and technological upgrades might drive up the costs of raw materials and production of electrical equipment, which will be translated into higher product prices, and may lead to shrunk demand for electrical equipment.</li></ul>	<ul style="list-style-type: none"><li>NARI will upgrade the power grid to the Energy Internet and promote the cleaning and low -carbon transformation of energy.</li><li>NARI will heavily rely on clean energy to reduce pollution and GHG emissions from fossil fuel combustion through full consumption of clean energy.</li><li>NARI will strengthen climate change response and environmental information disclosure.</li></ul>
	<b>Technology risk</b> <ul style="list-style-type: none"><li>Standards on industrial pollutant emission and comprehensive air pollutant emission require the Company to upgrade technologies in electrical equipment manufacturing, and use environmentally friendly technologies and equipment to conserve energy and reduce pollutant emissions.</li></ul>	
	<b>Reputation risk</b> <ul style="list-style-type: none"><li>Due to the proposal of Carbon Dioxide Peaking and Carbon Neutrality, stakeholders prefer NARI's active corporate management and transparent information disclosure in this regard. Failure to respond would damage the Company's reputation.</li></ul>	
Physical risks	<b>Natural disaster risk</b> <ul style="list-style-type: none"><li>Extreme weather such as typhoon, hurricane, and flooding, poses a huge threat to the security and stability of power grids, power plants, rail transit, etc., and raise customer requirements for the quality of products and equipment. We must increase investment to develop more resilient products and equipment.</li><li>Natural disasters such as typhoons and floods caused by climate change will affect project construction and operations, cause project delays and reduce profitability.</li></ul>	

Type	Climate-related opportunities	Response
Products & services	<ul style="list-style-type: none"><li>Facing the trend of low-carbon and environmentally friendly operations, the demand for clean-energy consumption, energy-saving and eco-friendly products is increasing. Our product portfolio with core technologies and intellectual property rights has first-mover advantages and can drive rapid business growth, enjoying a bright prospect.</li></ul>	<ul style="list-style-type: none"><li>Focusing on the 30-60 Decarbonization Goal and the construction of the new electric power system, we will accelerate original innovation and integrated application innovation to empower energy and power transformation and development.</li><li>Pursuing green, low-carbon and sustainable development, we will actively develop green products and technologies aimed at improving the utilization of clean energy and comprehensive energy, expand the use of electric energy as alternative, and promote large-scale connection of clean energy to the power grid and the consumption of clean energy.</li><li>We will improve the working mechanism of the environmental responsibility list, strengthen the management of energy conservation and consumption reduction of infrastructure, and build a green supply chain. We will strengthen the ecological design of the industry and pursue green construction and production featuring intensive construction land, harmless raw materials, clean production, recycling, and low-carbon energy.</li></ul>
New markets	<ul style="list-style-type: none"><li>Policies to optimize the energy mix, improve energy efficiency, and develop clean energy such as wind power, PV power, and hydropower come out frequently, driving the continuous expansion of relevant markets.</li><li>Driven by the 30- 60 Decarbonization Goal*, China is moving faster toward the Energy Internet. NARI, in this context, can extend our industry chain, expand business, and improve the market competitiveness.</li></ul> <p>* China strives to peak carbon dioxide emissions by 2030 and achieve carbon neutrality by 2060.</p>	
Resilience	<ul style="list-style-type: none"><li>More involvement in clean energy projects such as wind power and hydropower. NARI will develop new products and technologies to help customers better adapt to climate change.</li><li>Energy-efficient measures and eco-friendly suppliers and partners will be adopted to enhance our adaptability.</li></ul>	
Energy source and resource efficiency	<ul style="list-style-type: none"><li>NMore use of clean energy in production and operation to hedge against the risk of rising energy price.</li><li>Technological advantages will be leveraged to improve energy efficiency and reduce resource use and operating costs.</li></ul>	



## Facilitating the development of clean energy

NARI fully supports the establishment of the new electric power system, strengthens technical research and equipment development, steps up efforts to make breakthroughs in clean energy consumption technology, helps connect clean energy to the power grid, and thoroughly studies key technologies such as new energy active support and power source-grid coordination to better connect clean energy to the power grid. Breakthroughs have been made in key technologies including distributed power supply cloud dispatching and coordinated autonomous control of grid connection to promote the development of distributed power supply and microgrids. We escort the rapid development of pumped-storage hydropower and fully tap its potential to serve low-carbon transformation as a powerful backup for clean energy development.

### Case

#### Facilitating the hydropower generation

The Baihetan hydropower station with the installed capacity of 16GW is not only the largest hydropower plant, but also own the largest generator in the world. At full capacity, the station could generate up to 62.4 billion kWh electricity, while reduce 51.6 million tons of CO<sub>2</sub> emissions by saving 19.68 million tons of coals annually. The first unit of generator was put into operation in June 2021, and NARI's self-developed fourth-generation microcomputer excitation system is adopted in the station, securing stable operation of the unit and the voltage/reactive power support of the power grid. Later, the Company will further promote engineering commissioning and project construction, to continuously contribute to the timely delivery of clean and zero-carbon electricity to the load zone, promote a sustainable "west-to-east power transmission project", facilitate the transformation and upgrading of the energy mix, and gear our strength to expedite the goal of carbon peak and carbon neutrality.



### Case

#### Effectively supporting the acceptance of large-scale PV power generation

NARI has been deeply engaged in photovoltaic technology to integrate advanced technologies on modern digital information, communication, IT, cloud computing, big data mining with PV technology. We have formed a holistic PV power generation solution that addresses the intermittence and fluctuation in wind power PV power generation and ensures the stability, continuity and adjustability of the power grid. This technology has facilitated an array of key projects, such as the Zhangbei Wind and Solar Energy Storage and Transmission Demonstration Project, Hubei Sunshine Poverty Alleviation Project in "Three Counties and One Area", 100MW Photovoltaic Poverty Alleviation Project in Zhangbei County, and Chabei 140MW Photovoltaic Project and has been connected to the grid for power generation.



### Case

#### Serving the construction of pumped-storage power plants

Pumped-storage power plants are integral parts of the new electric power system and play an important role in improving the safe and stable operation of the power system and the quality and reliability of power supply. The Fengning Pumped-Storage Power Plant, currently the world's largest one, can consume 8.7TWh of new energy annually. It plays an important role in supporting the safe and stable operation of the power grids of North China area and enhancing the adjustment of the power system. The DAMS-IV intelligent distributed safety monitoring system provided by NARI featuring functions of automatic information collection, reorganization and calculation, chart customization and fault diagnosis has strongly supported the intelligent development of the Fengning project's safety monitoring system and laid a solid foundation for monitoring the unit safety and the ancillary engineering buildings during power generation of the first batch of units.



### Case

#### Supporting the development of offshore wind power

In April 2021, the Jinwan Offshore Wind Farm Project in Zhuhai with a total installed capacity of 300 MW was fully connected to the grid for power generation. The project can produce nearly 800GWh of clean electricity per year. Our third-generation wind power converters have effectively improved the efficiency and ensured the flexible operation of the units, and the safe and stable operation of the power grid. The smooth grid connection marks NARI's breakthrough in large-scale application of high-power offshore wind power converters, putting such product at the upper end of the industry.





Case

Developing charging facilities for e-vehicle

The development of new energy vehicles (NEVs) is China's strategic measure to address climate change and promote green development. In this context, NARI has vigorously carried out technological innovation of our charging pile products, providing strong support for China's EV industry and for achieving new infrastructure construction strategy of charging facilities.

In terms of the R&D of charging facilities and technology, NARI has formed a complete system structure that includes technical systems, standards & specifications, inspections & tests, and research result commercialization, and led the release of the world's first EV charging service standard. Our charging pile products have been widely used across the country.

As for charging pile products, NARI offers a complete product portfolio to meet different application scenarios such as home, public parking lot, supermarket, bus station and highway. Among them, the V2G charging piles can improve the flexible adjustment ability of the power system and help clean energy consumption.



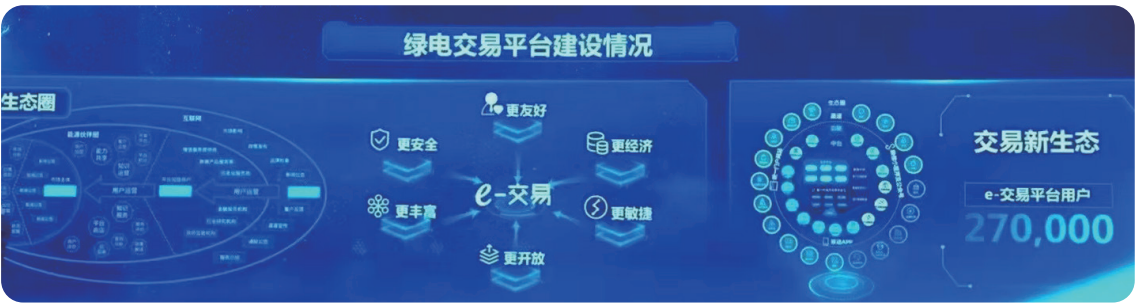
Case

Launching a new model for green power trading

NARI has innovated in the trading method to satisfy the needs of users of the Beijing Power Exchange Center and launched the R&D of the "e-trading" green power trading platform and a new generation of power trading platform, laying a solid foundation for the smooth opening of the green power trading market.

The "e-trading" platform is the front-end system for power trading. The power market operation service platform built for the entire power grid of "1+27" trading centers and 270,000 market players aims at creating a unified entrance and brand of power market services, enhancing the operation and service capabilities of trading institutions, facilitating the trade for market players, and building a good ecology for power trading.

The new-generation power trading platform provides middle-office support for users to involve in trading declarations on mobile devices and supports the whole-process online operation including green power trading, e-contracts, spot services, daily/monthly settlement, and information disclosure. Its rapid iteration, flexible expansion, safety and stability will effectively contribute to the power market and optimize the allocation of power resources.



Environmental management improvement

NARI strictly abides by Chinese laws and regulations governing environmental protection, including the *Environmental Protection Law*, *Energy Conservation Law*, and *Energy Conservation Regulations of Jiangsu Province*. Environmental protection has become an important consideration in our business development plan. While formulating environmental management documents such as the *Regulation on Environmental Protection*, we follow the principle of "whole-process, intensive, legal and standard" environmental protection to strive for "zero accident, zero injury, and zero pollution", building NARI as an environment-friendly enterprise.

Indicators	2019	2020	2021
Environmental protection training (session)	12	16	16
Environmental protection investment (RMB 10,000)	218.26	223.93	1358.76

Note: Due to the renovation of sewage treatment equipment in 2021, the investment in environmental protection has increased significantly compared with previous years.

Environmental impact identification and response

NARI has formulated the *Environmental Factor Identification and Evaluation Table*, and the *List of Important Environmental Factors*, with environmental risk prevention and control measures developed, to better guard against environmental risks in production and operation.

Environmental hazard investigation and handling

NARI regularly monitors environmental factors, investigates and eliminates the hazards of environmental protection facilities and systems. We keep a record of hazardous waste management and environmental protection equipment and facilities, and regularly update inventory, to strengthen the hazard investigation and handling.

Emergency management

NARI has revised the *Environmental Emergency Response Plan*, stocked emergency response materials and equipment, launched publicity campaigns on emergency response knowledge, and organized emergency response drills, to better respond to environmental emergencies.

Environmental performance appraisal

We set goals and indicators to regulate environmental protection management and supervise, inspect and evaluate the management process. Teams and individuals who have made significant improvement in environmental performance are rewarded.

Environmental management mechanism



The Company has obtained the GB/T 24001-2016/ISO 14001:2015 environmental management system certification. The certification system covers the design, development, production, and technical services of our automation systems, equipment and software, as well as environmental factors that can be controlled or influenced in the design, development, and production of high- and low-voltage power transmission and distribution equipment. We have also passed the annual supervision and audit of the third-party organization to maintain the validity of the certificate.





Low-carbon operations

In strict compliance with Chinese laws, such as the *Law on the Prevention and Control of Atmospheric Pollution*, the *Law on Prevention and Control of Water Pollution*, and the *Law on the Prevention and Control of Environmental Pollution by Solid Waste*, NARI has formulated and improved its regulations on the management of energy resources, waste, sewage and noise. To create green plants with our own characteristics, we continuously optimize environmental monitoring, pollutant discharge and waste disposal. We also advocate low-carbon travel and green office, striving to reduce the adverse impact of enterprise production and operation on the environment.

Utilization of energy and resources

The Company has formulated documents including the *Energy Operation and Control Procedure* and the *Management Procedure for Conservation of Energy and Resources* to strengthen the supervision and management of electricity, gas and water, etc. We actively adopt advanced equipment, apply new technologies, new processes, and new materials for energy conservation, and phase out energy-intensive equipment to enhance energy efficiency. Energy conservation has become an important consideration in our project initiation, renovation and extension. Based on the energy monitoring platform, we compare, track and analyze monthly energy consumption, and regularly maintain energy-consuming equipment to avoid energy waste. In 2021, we passed the RB/T101-2013/ISO 50001:2018 energy management system certification. We have reduced energy consumption and improved energy efficiency through systematic management, thus promoting energy conservation and emission reduction.



Case

Integrated energy efficiency management system of enterprises park

Following the principle of “intensive management, intelligent application, and green development”, NARI has established an integrated energy efficiency management platform for enterprises park in Jiangning Industrial Area, which integrates the systems of intelligent power transformation, distribution automation, and PV power generation. The platform realizes real-time monitoring of the whole process of energy consumption, and identifies abnormal condition in energy consumption through statistical analysis, which effectively improves the energy and management efficiency of the park. In addition, our self-developed distributed PV power generation system in the park has a total installed capacity of 2.23 MW, generating about 2.4 GWh of electricity each year, which can save 8.64 million tons of standard coal and reduce CO<sub>2</sub> emissions by about 2,392.8 tons. The PV power generation system adopts the grid-connected mode, with which the power generated is mainly consumed for our business, and the surplus power is connected to the grid. At present, the power generated has been completely consumed by ourselves, saving about RMB 2.8 million in energy costs every year.



The distributed photovoltaic power generation system

Infrastructure

- **Buildings:** We save materials, energy, water and land resources, and promote harmless disposal and renewable energy utilization in building materials and structure.
- **Lighting:** The lighting of different places is designed at different levels. The lighting of public places is divided, grouped and automatically adjusted at regular intervals.

Equipment and facilities

- **General equipment:** General equipment with high efficiency and low consumption of energy, water and materials is used, while prohibited equipment with high energy consumption and low efficiency is obsolete.
- **Metering equipment:** We provide standard measuring instruments and devices for the use and management of energy, water and other resources to achieve classified measurement.
- **Pollutant treatment equipment and facilities:** We use high-efficient pollutant treatment equipment that consumes low energy, water and materials, to ensure that pollutant discharge meets the requirements of laws and regulations.

Major measures for energy and resource conservation

Indicators	2019	2020	2021
Electricity consumption (thermal power) (GWh)	75.3093	76.7446	74.2521
Electricity consumption (PV power) (GWh)	5.405	4.7767	5.0047
Gasoline consumption (ton)	217.69	171.57	126.04
Diesel consumption (ton)	13.30	14.02	15.56
Natural gas consumption (10,000 m <sup>3</sup> )	60.69	52.32	48.19
Water consumption (10,000 tons)	74.74	73.63	66.83
Water consumption per capita (ton/person)	91.03	83.62	69.97



Case

Smart water management system helps improve water resources management

In order to improve water resources management and use efficiency, NARI has developed and installed a smart water management system by integrating technologies of big data analysis and Internet of Things. With the functions of real-time water flow monitoring, communication and data alarms management, water balance check and timely identification of pipe network leakage, the platform has realized real-time monitoring of major water use process and visualization of water use data, effectively enhancing water management.

Pollution control

The Company controls pollutant discharge by regulating the use of environmental protection facilities and daily operations, thus ensuring that pollutant discharge complies with relevant standards. To strengthen the management of various types of waste, we have formulated the *Waste, Sewage and Noise Management Procedures* and promoted waste recycling as best as we can to reduce pollution. At the same time, to strictly manage hazardous waste, we have issued the *Regulations on the Temporary Storage Room for Hazardous Waste*, and carried out drills on hazardous waste leakage accident regularly, so as to resolve the risks of fire, leakage and explosion accidents of hazardous waste in a timely manner and protect public property and employees' safety.

**Sewage discharge management**

We adopt a separate discharge system of rainwater and sewage. Domestic sewage is discharged into the city sewage pipe network after professional disposal. Qualified organizations are entrusted to recycle the canteen grease traps regularly, with recycling records kept.

**Noise management**

The computer servers are placed in a special soundproof room. We also install professional noise reduction equipment for the equipment room, and carry out noise monitoring every year.

**Lead-free process in production**

We promote WEEE certification and application of lead-free soldering, and have obtained certification reports for the PCS-S series products overseas. We adopt the lead-free technology in manufacturing 9 series of boards to reduce the harm of "lead" and lead compounds to the human body and the environment.

Major measures for controlling pollutant discharge

**Waste collection and storage**

- General waste:** We put special bins in the production and office area; professional workers will put the recyclable waste in a special warehouse, and the rest of the waste will be treated professionally.
- Hazardous waste:** After receiving the demands of organizations in the park, professionals will arrange the collection, registration and proper storage work in the temporary storage room for hazardous waste, and regularly check the room. Smoking or open flames are strictly prohibited in the temporary storage room, with adequate and effective fire extinguishers provided.

**Waste collection and disposal**

- Non-recyclable waste:** The waste produced each day is transported and disposed of by a professional company.
- Recyclable waste:** It is collected and stored in one place by cleaning staff, and will be treated by professionals.
- Hazardous waste:** After being collected by our professional department and registered on the environmental protection system online, the waste will be treated by a qualified third-party company, with records kept.

Major waste management measures

Indicators	2019	2020	2021
Effluent volume (10,000 tons)	62.65	62.05	62.19
Discharge of hazardous waste (ton)	7.30	11.53	10.82
Discharge of non-hazardous waste (ton)	37.50	38.90	1518.71

Note: Non-hazardous waste includes waste cartons, offcut, obsolete equipment, and kitchen waste. Since kitchen waste is added into calculation this year, the indicator of non-hazardous waste rises sharply compared with previous years. Hazardous wastes mainly consist of waste toner cartridges, waste ink cartridges, waste fluorescent tubes and waste circuit boards.

Green plants

In active response to the government's call for building green plants and promoting green and low-carbon development, NARI has implemented various green initiatives. Guided by the *General Principles for Assessment of Green Plant* (GB/T 36132-2018), we promote the building of green plants that comply with the standard. NARI has compiled the *Green Plant Management Manual*, and taken the initiative to apply advanced energy-saving management methods and technologies to the entire production and operation process. A corporate energy management system is established to implement the international technical specifications for GHG verification and carbon emissions. In 2021, for the first time NARI obtained the certificate of Verification Statement of Greenhouse Gas Emission and the Carbon Footprint Certificate for our EPS7100 Network Switch, and won the title of "Green Plant" in Jiangsu Province.



The Company has entrusted an independent third-party organization to verify its GHG emissions in 2020 based on ISO 14064-1:2006 and ISO 14064-3:2006. In 2020, the GHG emission of NARI Jiangning base was equivalent to 36,768 tons of carbon dioxide.

Our substation network switches comply with international standards and rules such as ISO 14067 and PAS 2050, and have obtained the product carbon footprint certificate. The carbon footprint value of each functional unit product is 212.11 kg of carbon dioxide equivalent, in which raw material sourcing accounted for 43.34% and production 56.46% individually.



Carbon emissions	Energy	Emissions (tCO <sub>2</sub> e)		
		2019	2020	2021
Emissions (Scope 1)	Natural gas, gasoline, diesel	1,950.56	1,699.03	1,475.56
Emissions (Scope 2)	Electricity	60,405.76	61,577.14	59,761.76
Total carbon emissions	Natural gas, gasoline, diesel, electricity	62,356.33	63,276.17	61,237.31

Note: The calculation of CO<sub>2</sub> emissions refers to ISO 14064-1:2018 Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.



While ensuring product function and quality as well as the occupational health and safety of staff in the production process, the Company introduces the life cycle thinking, adopts green design, and prioritizes green raw materials, processes, technologies and equipment. We strictly prohibit outdated processes eliminated by the country to make our products green, even for higher energy efficiency, realizing green and sustainable products.

Green procurement

- A green procurement plan is worked out to include environmental protection requirements into procurement documents, such as the use of hazardous substances, the use of recyclable materials, and energy efficiency, to guide suppliers in green production.
- We prioritize the procurement and use of eco-friendly raw materials, prohibit the use of highly carcinogenic chemical substances, and reduce the use of substances with harms to humans and the environment. We conduct risk assessments on chemical substances, and minimize the use of them in the entire life cycle of products to reduce environmental pollution and other negative impacts as best as we can.

Clean production

- We replace non-renewable energy with renewable energy, and strictly prohibit the use of energy-intensive equipment with low performance. We renovate energy-intensive and low-efficient electromechanical equipment, regularly provide overhaul and analyze its energy consumption to improve energy efficiency.
- We have formulated the regulations of prohibition, management, and reduction for three categories of chemical substances in production, reduce or replace hazardous substances and chemical, and use recycled and recyclable materials.

Green packaging and logistics

- While ensuring product quality, we optimize product packaging and logistics by using eco-friendly packaging materials, improving transportation routes and tools, and selecting reasonable transportation methods, which has reduced carbon emissions in a scientific way, and minimized their environmental impact.

Product carbon footprint verification

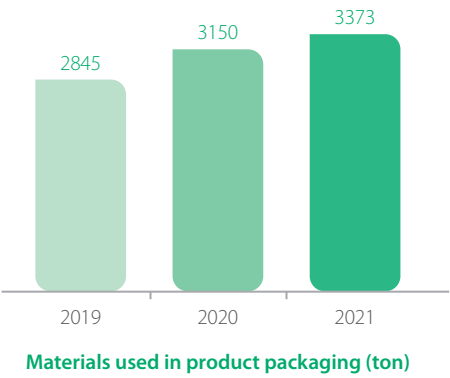
- With applicable standards or specifications, we verify the carbon footprint of products, and based on the results we further improve the carbon footprint.

Major measures for green production

Case

### Green packaging contributes to green development

Formaldehyde and noise pollution during transportation are two problems resulting from the use traditional plywood for power protection and control packaging. In order to solve these problems, NARI replaces traditional plywood packaging with honeycomb cardboard, which is environmentally friendly and more recyclable, and can reduce the use of wooden boxes by over 50,000 sets, lessen the transport weight by 5,000 tons and cut the packaging costs by RMB 2 million. With the innovative application of honeycomb cardboard packaging in power protection and control equipment, we have won the third prize in science and technology innovation by China National Packaging Corporation, the honor of Excellent Packaging Case by China Federation of Logistics & Purchasing, as well as other honorary awards.



Note: Cartons and wooden boxes are our main product packaging materials.

## Green office

As an advocate of a green lifestyle and a low-carbon future, we save every penny, every piece of paper, and every inch of wire count in daily work, promote the low-carbon concept among employees and strengthen energy consumption control to reduce carbon emissions, building NARI as a resource-saving and environment-friendly enterprise.

We provide e-vehicle shuttles and build charging piles in the park to facilitate the green travel of employees. Except paperless office, we use video conferencing systems widely to reduce greenhouse gas emissions resulting from business trips. We also carry out publicity activities on energy conservation to guide employees to save energy and reduce emissions, and create a green office environment.



Major measures for electricity and water saving in offices

Case

### E-vehicles contribute to green travel

In order to promote energy conservation and emission reduction, and advocate green travel, NARI has replaced the shuttle buses from traditional diesel vehicles to e-vehicles and achieved "green commuting". In addition, in order to promote the use of e-vehicles, 40 AC charging piles and 11 DC charging piles of multiple types have been built in NARI Jiangning Base, creating a e-vehicle charging station integrating "product experience and technology development", which meets the needs of employees and help them to green travel.





## Promoting Talent Cultivation for Shared Growth

Employees' quality and vitality is the fundamental driver behind a company's growth. Regarding talents as the core asset, NARI respects and safeguards the rights of employees, constantly improves staff training systems and career channels, and provides a platform for employee growth. We strive to create a safe and comfortable working environment and pursue common progress with employees.



Employee rights and benefits

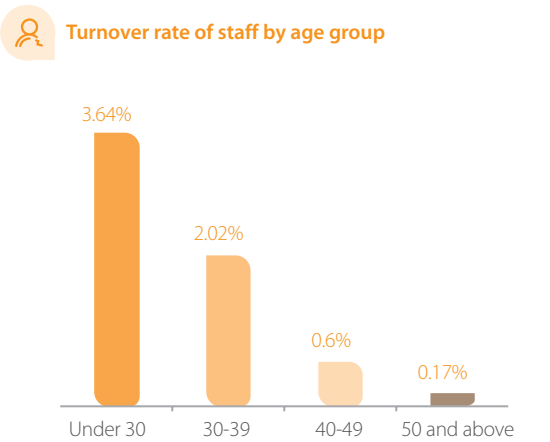
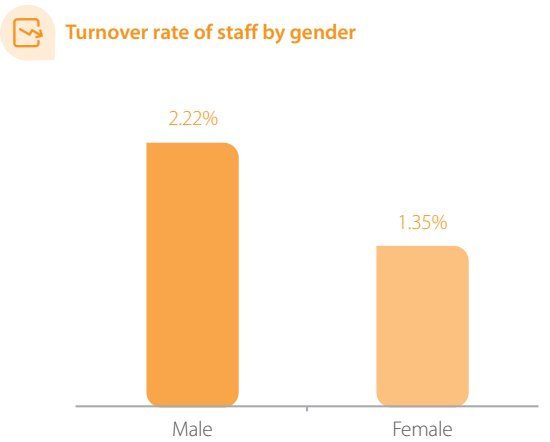
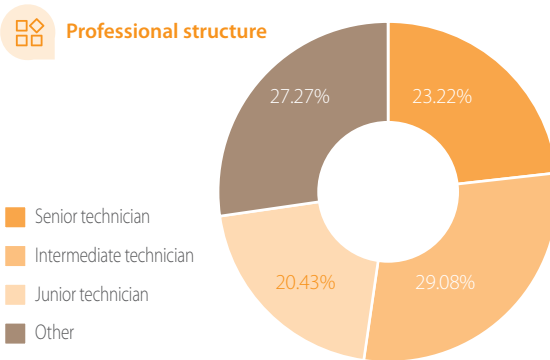
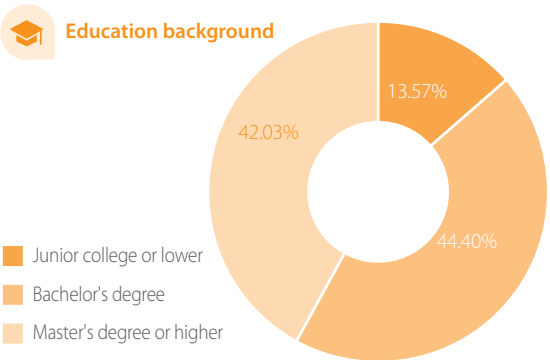
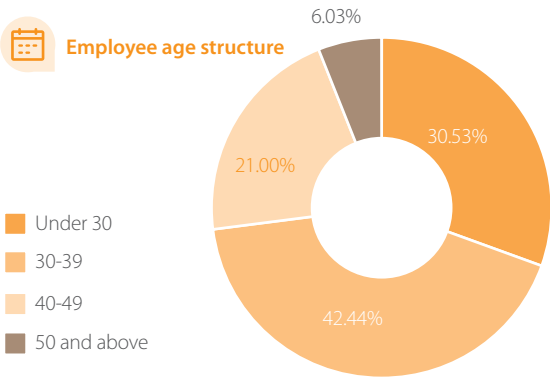
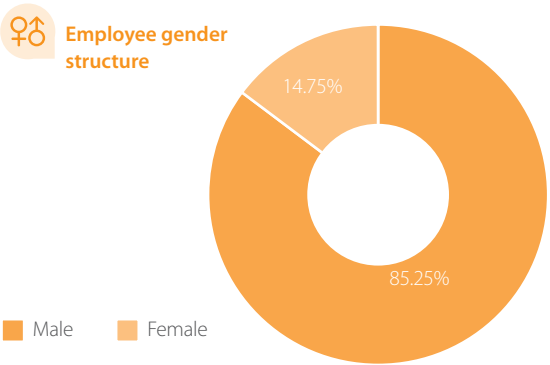
In line with the people-centric philosophy, NARI respects and protects the legitimate rights and interests of employees, and continuously improves the compensation and benefits as well as democratic management. We ramp up efforts to enhance employees' sense of security in their work, establish a harmonious relationship with employees and raise their sense of identity and belonging to the Company.

In 2021

- ◆ **9,551**  
Employees in total
- ◆ **1,409**  
Female employees
- ◆ **122**  
Female managers
- ◆ **250**  
Employees from minority ethnic groups
- ◆ **0**  
Major labor disputes
- ◆ **100 %**  
Labor contract signing rate
- ◆ **100 %**  
Social security coverage
- ◆ **2.10 %**  
Employee turnover rate

Equal employment opportunity

The Company strictly abides by Chinese laws and regulations, such as the *Labor Law*, the *Law on Employment Contracts*, and international conventions, including the *Universal Declaration of Human Rights*, *International Human Rights Convention* and core conventions of the International Labor Organization that China has approved. Accordingly, various regulations are formulated, such as the *Employee Recruitment Management Measures*, *Attendance Management Measures*, *Labor Contract Management Measures*. We treat employees equally regardless of their nationality, ethnicity, race, gender, religious belief, or cultural background. We prohibit discrimination, child labor or any forms of forced labor. We have established a personal information and privacy protection mechanism for employees, which stipulates the principles and security requirements for managing personal information of employees, thus effectively protecting their privacy and information security.



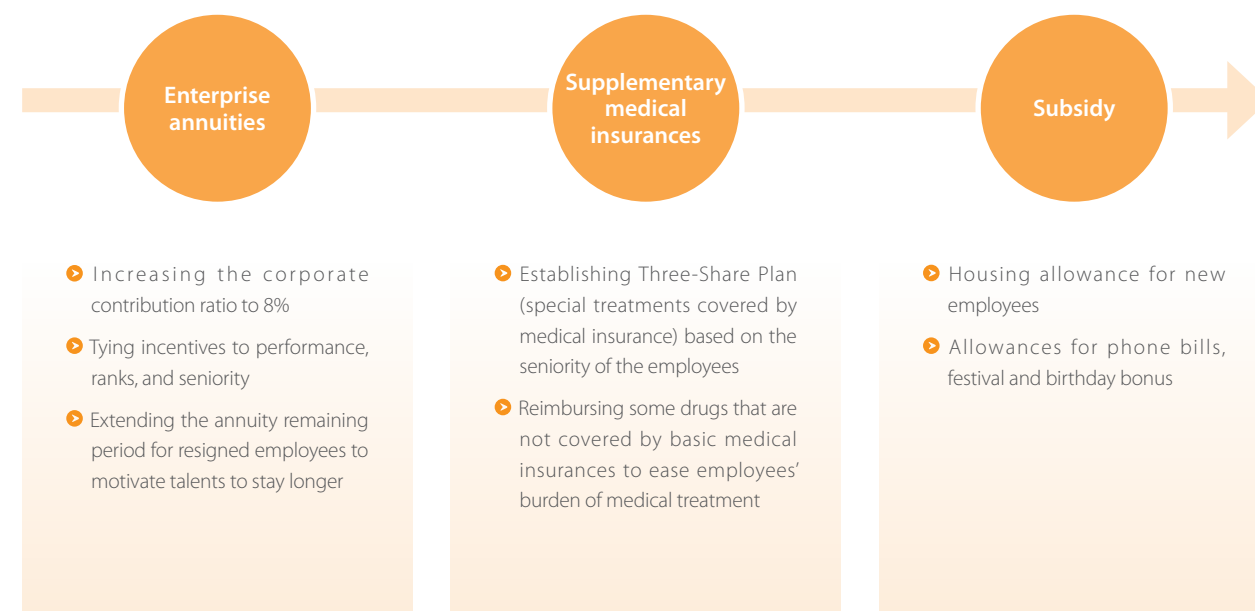
Note: Turnover rate of staff = number of employees in this category who leave the company/total number of employees in this category

## Compensation and benefits

NARI attaches great importance to human resource, and has formulated the *Performance-based Salary Management Measures and Rules for Employee Performance Management*, which indicates a reasonable, legitimate and proper salary and performance appraisal system. Employees' salary is determined by their capability, performance assessment and corporate revenue while the total compensation and benefits is based on employees' competence, ranks, performance, and remuneration. In addition, we have strengthened the connection between compensation and the career development and performance appraisal system, with an aim to explore a long-term incentive mechanism for attracting and retaining employees.

The Company explores a medium and long-term incentive mechanism, and implements an equity incentive plan to stimulate enthusiasm and creativity of outstanding employees on an ongoing basis, and enhance the sense of identity and belonging of the management. By attracting and keeping the talents, we seek to improve the core competence of the Company, and achieve common growth and a long-term win-win situation with employees. At the beginning of 2021, the first-year performance objectives of our first equity incentive plan were successfully achieved, and incentive shares were given to 978 employees. At the end of 2021, the Company formulated the 2021 equity incentive plan, granting restricted shares to 1,299 core employees.

The Company continues to improve the comprehensive welfare system, revising the *Detailed Rules for the Management of Employee Physical Examination Fees*, the *Detailed Rules of Medical Subsidies for Employees' Children* and the *Detailed Rules of Subsidies for Employees in Difficulties*, and strives to optimize and improve the physical examination of employees, medical subsidies for employees' children and allowances for employees in need. NARI pays corporate social insurance and provident fund in full according to the highest proportion, achieving 100% social insurance coverage, provides employees with enterprise annuities, supplementary medical insurance and various subsidies. Each employee has 8 days of paid vacation per year. With comprehensive benefits, we have improved employees' experience and attracted more talents.



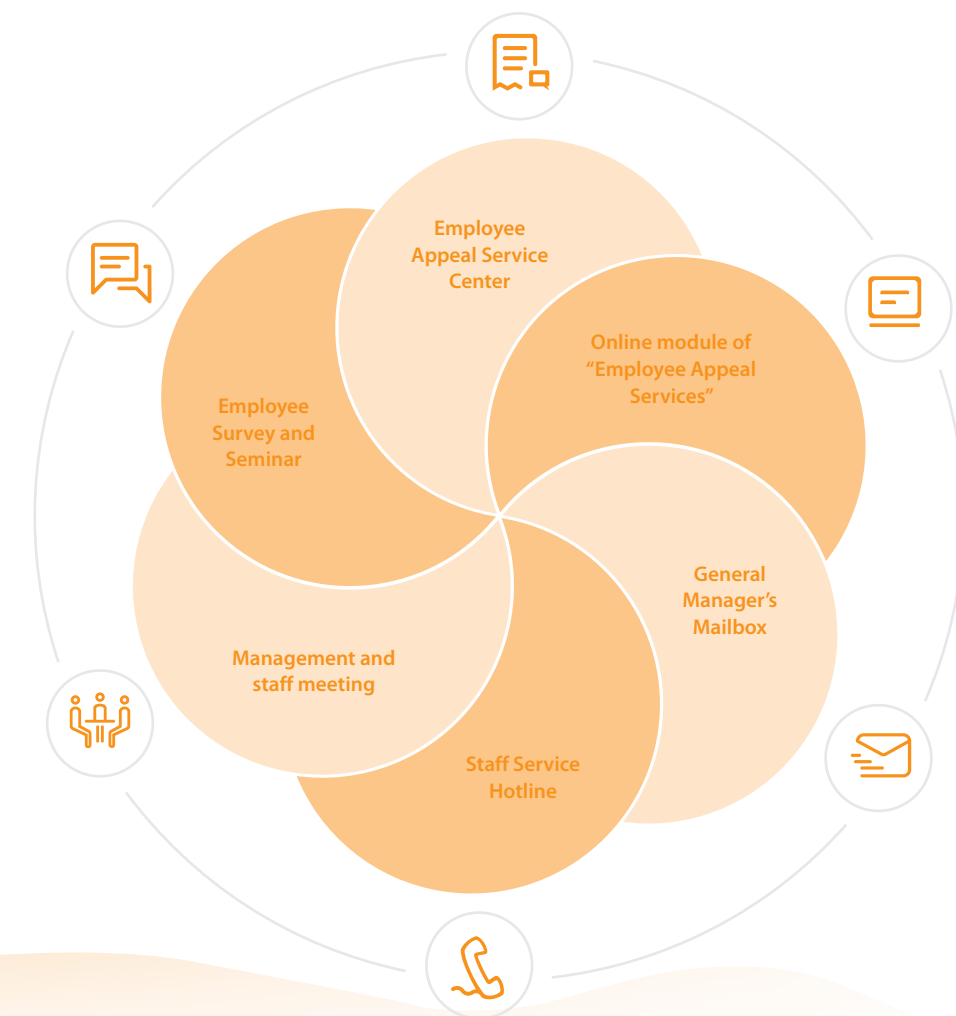
Diversified benefits system

## Democratic management

Aiming to enhance democratic engagement, NARI has formulated the *Administrative Measures for the Workers' Congress*, *Implementation Measures for the Workers' Congress* and *Rules for Corporate Democratic Management*. By establishing democratic management systems, we have safeguarded employees' rights to know, participate, express and supervise.

The Company holds the Workers' Congress every year to collect proposals and suggestions from staff representatives based on annual work schedule, encourage employees' engagement in company management, and give full play to their enthusiasm, initiative and creativity. The Company has built a three-tiered appeal service system to ensure multiple communication channels online and offline available for employees. The dialogue mechanism is improved to make communication easier. The Employee Appeal Service Center and the online "smart labor union" platform are established so that employees could submit their appeals with one click. The closed-loop management has continuously improved our employees' sense of happiness and fulfillment.

Through collective negotiation, the labor union has signed a collective contract and a series of special collective contracts on labor protection, employee innovation, and the protection of female employees' rights and interests respectively with the Company, which effectively protects the legitimate rights and interests of employees.



Multiple communication channels

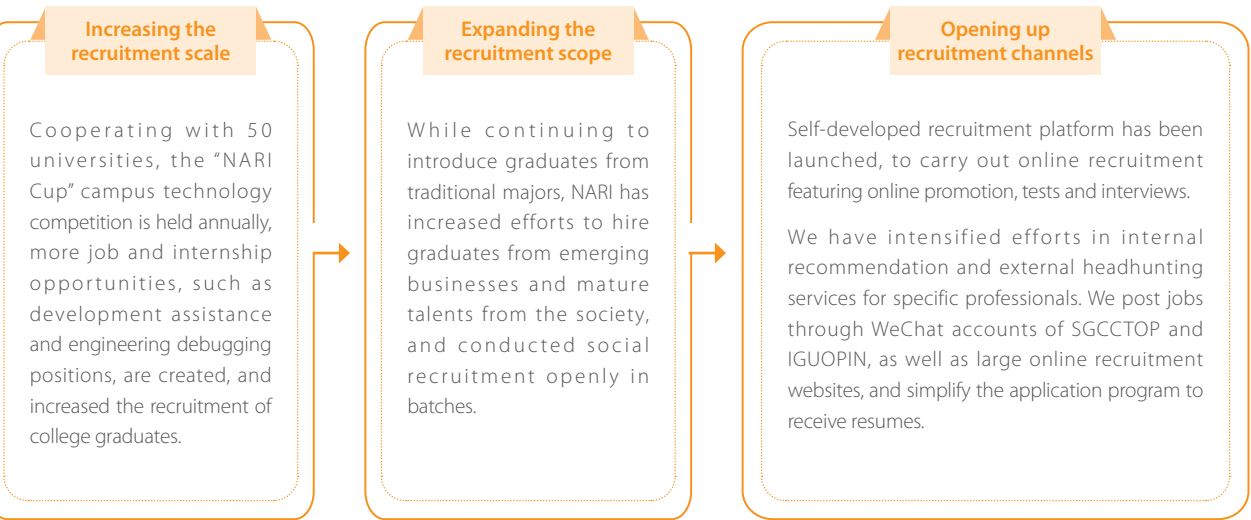


Employee development

Focusing on competence development of talents, the Company constantly improves the talent training system and unblocks career development channels to provide various opportunities for different types of employees so that their professional skills, quality and ethics can be fully elevated.

Talent recruitment

To facilitate stable employment, the Company takes targeted measures to stabilize and expand employment, especially exerting its influence on attracting college graduates and skilled talents from the society. Based on the business development strategies and emerging fields prospects, NARI identifies high-potential talents, attract talents through activities, recruit employees from local region, and make targeted talent policies, and take multiple measures to promote the construction of the Company's talent team to a new level and promote the sustainable development of the Company. In 2021, the Company recruited 978 new employees, a year-on-year increase of 21.79%.



Major measures for stable employment

Staff training

NARI attaches great importance to team building. We have formulated the *Management Measures for Education and Training Programs*, and published a series of guidance documents such as the *Guidelines for Management Position Competency Training Courses*. To build a learning organization, we set up an all-round and multi-tiered training system to support employees at different stages of career development. In 2021, we completed the design of training courses for 259 standard positions in 53 professions, and developed a total of more than 1,500 online courseware and over 15,000 test questions. We keep increasing the training resources and making training plans more systematic.

In 2021

- RMB 30.92 million  
Invested in training

147  
Employee training programs carried out
- 15,380  
Participants

100 %  
Training coverage over employees

Rank	Way of training	Focus and content
The management	Special training classes	<ul style="list-style-type: none"><li>We provided six special training courses for management personnel to enhance their political awareness and ability, in which more than 80 business development suggestions were put forward. We organized seven training courses for primary-level management personnel to improve their comprehensive management capabilities and unite them. A total of more than 660 management participants at all levels were trained throughout the year.</li><li>Through the Learning Day and regular work meetings, and in various forms, such as face-to-face teaching, seminars, and case studies, we studied the guiding principles of important meetings of the Party and the nation to plan for and implement the key tasks.</li></ul>
Ordinary employees	Special trainings	<ul style="list-style-type: none"><li>Focusing on product development, project implementation, inspection and testing, etc., we provided more than 110 special training sessions for primary-level organizations.</li><li>We held eight lectures of the Purple Mountain Forum regularly, covering major topics on innovation such as "carbon peak and carbon neutrality" and "new electric power system".</li></ul>
New staff	Centralized training and mentorship	<ul style="list-style-type: none"><li>We provide training for young employees during their first three years in the Company, and arrange professional mentors for them with mentoring agreements and clarified training goals and tasks, aiming to improve their professional skills and competence for their jobs.</li><li>Based on the characteristics of employees, we have developed personalized training plans and courses, and combined them with projects and outreach activities, which improved employees' learning experience and their sense of belonging.</li></ul>

The tiered training system for employees

To strengthen the Company with talents, we have established a talent training system for employees at different development stages, including high-level talents, key staff, and young employees. We have issued the *Opinions on Accelerating the High-quality Talent Development and Opinions on Building a Team of Skilled Talents in the New Era*. The talent sequence with three types of career paths and five ranks, an academic appointment system and a subsidy system, and an expert system are established for the Company to achieve high-quality development.



Case

Intensive training to build a vibrant force of young employees

In order to help college graduates adapt to the Company quickly, NARI developed the intensive training mode for orientation program based on the learning habit of the post-1995 generation. Focusing on corporate culture, company overview, work ethics, etc., the training program used multiple teaching forms such as lectures, co-creation, case analysis, visits, interviews, and scenario simulation, and designed 45 courses in four aspects and three stages, providing rich training contents and great learning experience. The training has helped new employees shift to the role in our business development as soon as possible.

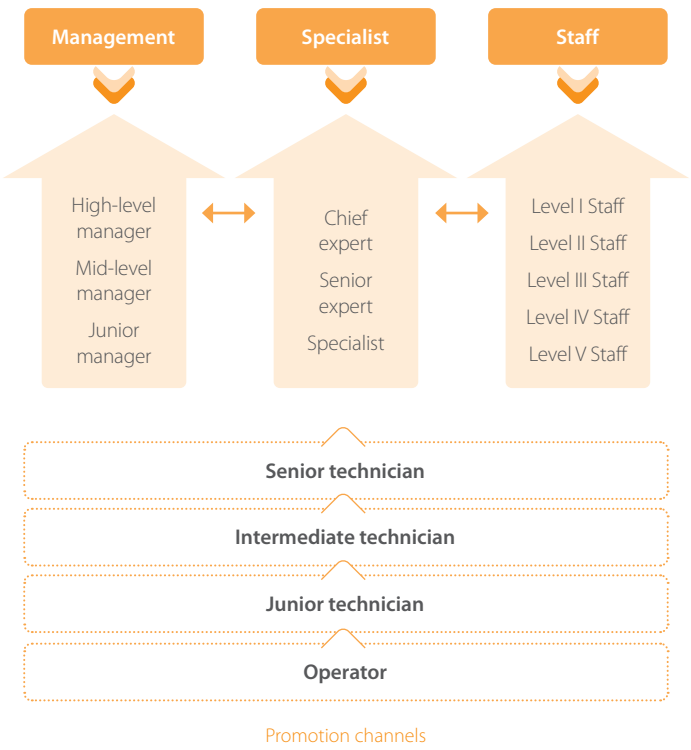


New staff training

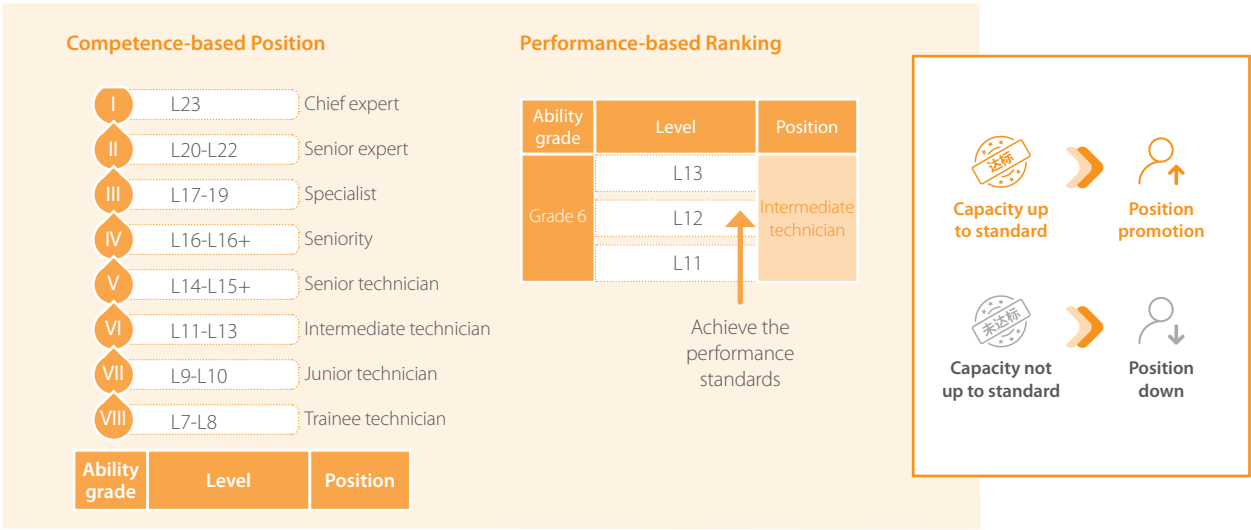
Career development

The continuous improvement of employees' lifelong employability is emphasized at NARI. We thus set up special career paths for different types of talents, and keep improving the clear and sound company-wide performance management system to fully stimulate the vitality of the workforce.

The Company has formulated the *Management Measures for Career Development Channels*, which sets up three career paths of management, specialist and staff with clear responsibilities and goals, and standardizes the operation mechanism for career development channels. Development opportunities for employees are thus effectively expanded, and each of them can make full use of their talents and perform their functions.



The Company has revised the *Rules for Employee Performance Management* to break with the traditional talent assessment standards of seniority, educational background, technical titles, etc. Accordingly, we adopt a differentiated assessment system for different type of employees to achieve personalized and targeted evaluation. This will help effectively raise the salaries of key staff and outstanding young employees, and improve the performance management system featuring clear objectives, fair assessment, effective incentives, and full coverage of employees, thus comprehensively stimulating the vitality of employees.



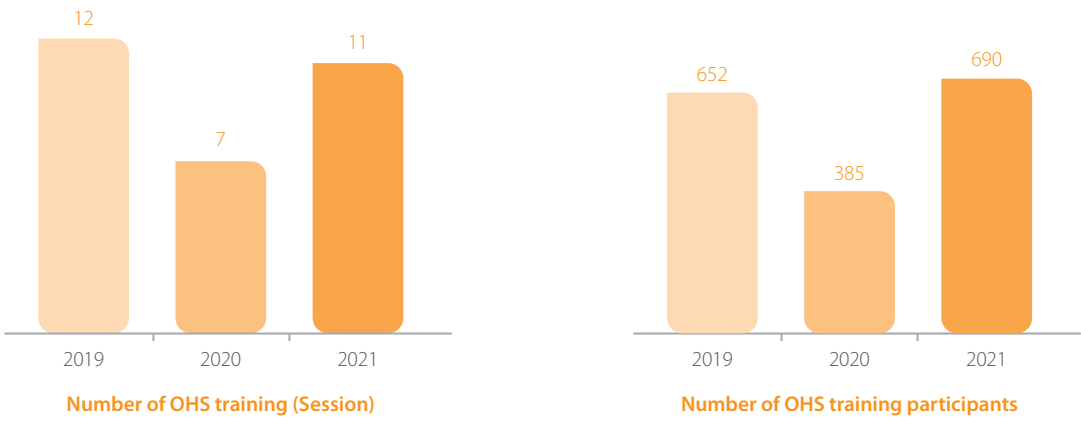
Employee performance assessment mechanism

Occupational health and safety

Strictly abiding by the *Law of the People's Republic of China on Prevention and Control of Occupational Diseases*, NARI has formulated management measures such as the *Regulations on Occupational Health Management* and *Occupational Health Management Manual*. Aiming to protect the health of employees, we have built a closed-loop employee health management system, improved the ability of COVID-19 response, and spared no efforts to safeguard the health and safety of employees.

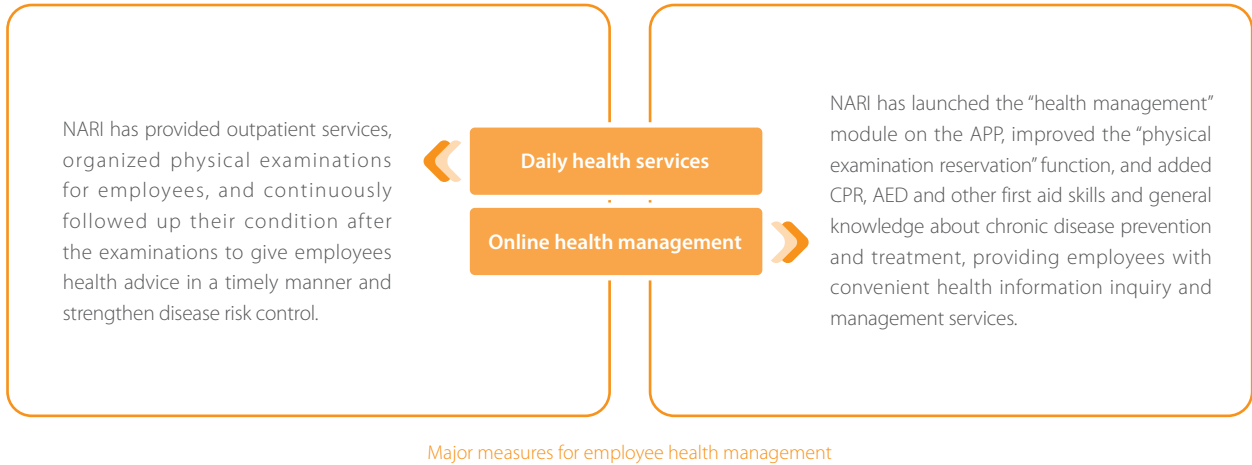
Occupational health

The Company conducts occupational health examinations every year. We establish and maintain occupational health files, regularly detect and evaluate occupational hazards, and conduct examinations for staff exposed to occupational hazards. In 2021, physical examinations covered all the employees. We have passed the ISO 45001 Occupational Health and Safety Management System (OHSMS) certification, continuously strengthened the prevention of occupational hazards, and provided employees with labor protection supplies, facilities and tools that meet the requirements of occupational health protection. We also regularly inspect and maintain the protective facilities and equipment to ensure their normal operation. We have formulated health emergency plans, conducted drills regularly, provided AED and other first aid equipment, carried out first-aid training and promoted related knowledge to improve employees' self-rescue and mutual aid capabilities.



First-aid training





**Case**

**Raising the awareness of chronic disease prevention and control, and strengthening health protection and intervention**

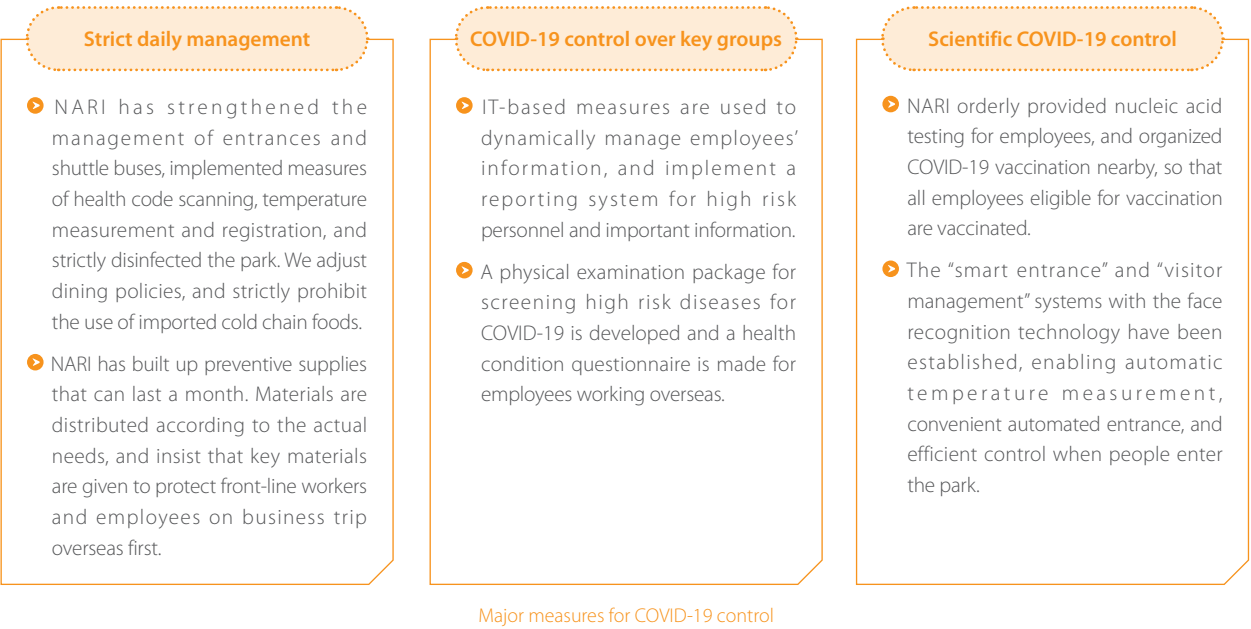
To improve employees’ awareness of chronic disease prevention and control and protect their occupational health and safety, NARI launched the campaign themed “Hypertension Day” in October 2021. We provided blood pressure measurement and health consultation services in the park, made and handed out brochures, and explained to employees the knowledge about hypertension. The campaign helped employees enhance the management of chronic diseases such as hypertension, raise their awareness of the prevention and treatment of these diseases, and have a healthy lifestyle.

Promoting knowledge about hypertension prevention and control

## Epidemic prevention & control

The severe COVID-19 worldwide poses threat on people’s life and health. The Company actively plans for pandemic control and never slackens our routine COVID-19 response measures. We carry out targeted control, strengthen the implementation of control measures across the industrial park, and conduct differentiated and classified IT-based management on key groups. The Company strictly fulfills the responsibilities for the park, and organizes nucleic acid testing for all employees, ensuring all those in need tested. We have organized employees to get vaccinated in multiple spots and in batches, basically ensuring all employees eligible for vaccination are vaccinated. We have established a “zero-risk” park to ensure employees’ health and built a shield against COVID-19. In addition, we actively cooperate with the COVID-19 response department of Jiangning Development Zone, and set up a temporary testing camp in our security room at the west gate of the headquarters to facilitate nucleic acid testing for nearby residents and support local COVID-19 control.

To ensure the health and safety of employees overseas, the Company has organized the vaccination for overseas staff in an orderly manner, conducting screening for high-risk basic diseases for COVID-19 control, and holding online COVID-19 prevention lectures. With these multiple measures, we keep improving the ability to manage overseas COVID-19 risks, and effectively prevent COVID-19 and secondary risks.





# Employee care

Committed to providing employees with a safe and comfortable working environment, NARI makes good use of our resources to assist special groups, including employees in need, and helps employees achieve work-life balance through various forms of activities, striving to improve employee satisfaction and their sense of belonging.

The Company integrates our service resources, innovates in service modes, and optimizes service channels. The Company has set up an employee service center to provide employees with a package of services including banking, insurance, business travel, communications, medical care, and household registration. We have created a one-stop work and life service platform to meet the diverse needs of employees and offer a full range of convenient services for their work and life. We also provide employees with apartments, meals, and shuttle buses, and carry out various employee care activities such as giving holiday gifts and assisting needy employees. Through sincere concern and care for employees' work and life, their sense of happiness has continuously improved.

In 2021

100 %  
Employee satisfaction

Special lounges have been built for female employees and renovated for female employees in pregnancy, maternity, and lactation period. Antenatal leave, maternity leave, and breastfeeding leave is provided to ease their inconvenience in feminine hygiene and lactation period.

The allowances are increased for employees in need and 204 employees have been granted the allowance in 2021.

The employee medical aid plan has been formulated and carried out, to help employees to deal with the risk of diseases.

Benefits and health examinations are provided for retired employees based on regulations, and send gifts to them during the Spring Festival.

Retirees are subsidized to go to colleges for the elderly and enrich their cultural life.

Gifts are sent in winter and summer for employees in difficult working environment and key projects, as well as free recreation opportunities.

Measures for caring overseas employees and their families are adopted to remove their worries about families.

Major employee care measures



The Company encourages employees to achieve work-life balance. By building gyms and indoor activity centers, and establishing various cultural and sports clubs such as the football club, calligraphy and seal cutting club, photography club, we create opportunities and condition for employees to take up hobbies. Various recreational and sports activities help enrich their life in leisure time and improve their physical and mental health.







## Engaging in Communities to Contribute to Society

The survival and growth of an enterprise depends on a good community environment, which provides favorable conditions for the enterprise's sustainable development. While pursuing business development, NARI shoulders its social responsibilities by engaging in public services, supporting rural vitalization, and carrying out public welfare activities. We also help vulnerable groups and promote social development, continuously contributing to the building of a harmonious and beautiful home.



## Power supply for Beijing 2022 Winter Olympics and Paralympics

Under the world spotlight, the Beijing 2022 Winter Olympics and Paralympics (Beijing 2022) serve as an important opportunity to demonstrate China's outstanding achievements. With a stronger sense of responsibility, NARI has fully leveraged our advantages in technology, products and services, and gone all out to secure reliable power supply for the Beijing 2022.

The Company has established a power supply leading group for the Beijing 2022, and built a coordination mechanism for multiple business departments. We have also cooperated with power utilities in relevant provinces and cities and set up a team consisting of 626 members, who were assigned to key stations in three competition zones. Through equipment inspection, system monitoring, risk identification and management, we have provided comprehensive support for the power supply of the Beijing 2022.



Dispatching system O&M



Routine inspection on the water-cooling system of the converter valve

Actively meeting the power demand of the Beijing 2022, we have made use of our strengths in technological innovation to fully support the development of power supply systems and equipment for the Games, and increased resource investments to present a high-tech and green Winter Olympics.



**The Beijing 2022 Power Operation and Command Platform, Electric Power Operation Center of Beijing Organizing Committee for the 2022 Olympic and Paralympic Winter Games (EOC)**

For the first time in the history of the Olympic Games, we integrated the operation and monitoring of both the main network and the distribution network into the self-developed "smart brain", allowing real-time monitoring and unified control of the power operation of the 25 venues in the three competition zones, and provided guidance on inspections and emergency response for power supply teams there.



**Holographic and Intelligent Management Platform of North China Branch, SGCC**

By collecting and displaying information of new energy power generation, digital intelligent power transformation, and integrating physical power grid information with meteorological environment and 3D GIS data, we have realized panoramic perception and whole-process control of power supply in Winter Olympic venues, and provided 24-hour green power for the venues.



**Intelligent and real-time power supply monitoring platform for key customers**

Featuring efficient data processing, we realized the panoramic display of important data of key customers, conducted real-time data analysis about power failure recovery, overload, and voltage abnormality and swiftly simulated the operation path and process of emergency repair personnel.



**Winter Olympics Power Operation Guarantee Platform for Zhangjiakou**

3D visualization technology was adopted to realize the unified display of graphics and alarms in venue monitoring. For the first time, advanced applications in the context of special network topology were integrated into the entire monitoring process to achieve full-network monitoring from primary grid substations to the low-voltage distribution network.



**Power Supply Command Platform for Beijing 2022**

Integrating functions such as dynamic interaction and real-time synchronization of power supply data, the platform displayed information like power load of the venues, support teams, materials, assistance, emergency procedures, etc. which efficiently supported emergency management and command.

Ensuring power supply for the Beijing 2022 with technological strengths



### Case

#### The power operation and command platform contributes to the success of the Beijing 2022

On the 100-day countdown to the Beijing 2022, the power operation and command platform and EOC system developed and implemented by NARI were put into operation at Winter Olympics Power Supply Service Center of the State Grid. For the first time in the history of the Olympic Games, the Beijing Winter Olympics Power Operation and Command Platform has realized the digital, intelligent and panoramic monitoring of the power sector. It allowed real-time monitoring and unified control of the power operation in the 25 venues of the three competition zones in Beijing and Zhangjiakou, and provided guidance on inspections and emergency response for power supply teams there, fully ensuring the power supply for test events and Olympic events. Since the launch of the platform, we have assigned technical staff on duty with decision-making support, ensuring safe and efficient operation of the support system for the Winter Olympics.

## Public services

NARI actively fulfills its social responsibilities, participating in emergency rescue and disaster relief activities, supporting COVID-19 control and providing strong measures and good services for reliable power supply, which ensures steady economic and social development.

The Company has completed more than 580 demand-driven tasks for power supply. We have completed the power supply tasks for major events such as the "two sessions", the celebration of the centenary of the CPC, and the China International Import Expo in Shanghai, and for major festivals such as the Spring Festival and National Day. We serve the power grid by gearing up for the peak periods of summer and winter and conducting inspections in autumn, and ensure emergency power supply for COVID-19 response, thus contributing to social development with our strengths.



### Case

#### Leveraging our strengths to support the disaster relief in Henan

In July 2021, Henan province was struck by devastating floods that had severe impacts on local people's livelihood and economy. To support the safe and stable operation of power grids and facilities in Henan, NARI promptly set up a team for disaster relief. 54 technical staff in regions around Henan were sent to support power supply. We built an on-site O&M team with 24/7 duty in shifts to ensure the safe and stable operation of power grid systems such as master stations of power dispatching and distribution network automation. We conducted frequent inspections on communication systems and equipment to ensure timely response to emergency alarms and provide information for repair. We also supported urgent repairs of power grids and guaranteed power supply for Henan, sparing no efforts in the disaster relief.



Ensuring operation of the master stations of distribution network automation





## Case

## Supporting the battle against COVID-19 outbreak in Shaanxi

At the end of 2021, COVID-19 broke out in Shaanxi. Against the severe and complex situation, NARI immediately established an on-site rotation system and emergency management mechanism, coordinated the distribution of epidemic prevention supplies, and built a separate backup office for O&M. We made orderly arrangements for on-spot employees, and assigned on-site O&M engineers to ensure power supply and build key systems in various regions in Shaanxi. Backed by the workplace safety risk management platform, the unified video platform and emergency management system, we monitored the data in real time with less inspection personnel, which effectively avoided cross-infection, and ensured timely emergency responses. We supported the safe and reliable power supply for communication and household use, and helped Shaanxi fight the tough battle of COVID-19 control.

## Rural vitalization

With its resources and technical advantages, NARI supports local development, and consolidates the poverty alleviation achievements through corresponding assistance and consumption-driven policies. We advance rural vitalization by promoting clean, smart energy and efficient energy use in rural areas, thus contributing wisdom and strengths to rural vitalization.

### Consolidating the achievements in poverty alleviation

Steadily consolidating the achievements made in poverty alleviation, we have provided assistance in terms of human resources, consumption, funds and other forms. We help regional resources and products enter the market to increase local incomes, and explore a long-term rural vitalization mechanism. In 2021, our canteen purchased RMB 1.0038 million worth of agricultural products such as agaric fungus and soybean oil through the "Huinongbang" APP (an APP which assists the farmers), and our labor unions at all levels purchased RMB 1.0513 worth of agricultural products in total through the "Airudian" APP (an APP which assists the farmers).



## Case

## Helping Suhe Village draw a new painting of revitalization

Suhe Village in Suining county, Jiangsu Province, had 148 registered poverty-stricken villagers in 46 households. Although poverty alleviation was basically achieved by the end of 2018, it was not easy to consolidate the achievements. NARI donated RMB 1 million for that goal, and invested RMB 200,000 to purchase clothing equipment, which were leased to local clothing factory, and helped create 30 jobs in Suhe Village and increase the village income by RMB 50,000 each year. In addition, we sent staff there to help consolidate the achievements in poverty alleviation. We contacted agricultural experts to provide training for production and income increase, and explored new ways for selling agricultural products such as livestreaming marketing, finding regular purchasers, etc., thus helping Suhe Village find the key to "The Door to Wealth".

By the end of 2021, none of the 148 low-income villagers from the 46 registered households returned to poverty. A long-term endogenous driving force of poverty elimination has basically formed, and the level of rural development has steadily improved.



The clothing factory of Suhe Village

### Supporting agricultural development

The Company uses digital technologies to solve problems such as low automation level in rural energy and water use, as well as inadequate and inefficient energy and resource utilization. By realizing real-time monitoring of key data and accurate control of key equipment, we have further improved the economic benefits of farmers, enhanced rural governance, and promoted the agricultural modernization, contributing to rural vitalization.



## Case

## Rural "intelligence" makes agricultural production more efficient

As it is crucial to solve the rural energy problems for advancing the rural vitalization strategy, NARI has cooperated with manufacturers in various fields to develop the smart energy consumption system (CPS). After the pilot smart energy service station in Shouguang, Shandong Province, confirmed zero energy consumption, we applied the system to a total of 7 industrial parks in Shouguang Modern Agriculture High-tech Experiment Demonstration Base by the end of 2021. 1,398 IoT devices were installed for the vegetable industry, which helped save water and fertilizer for vegetable greenhouses by 40% and 30% respectively, reduce carbon dioxide emissions by over 2,500 tons, and cut annual electricity costs and labor costs by RMB 140,000 and RMB 1 million respectively. And farmers' income has increased by more than RMB 100,000 each year through smart energy use, which mobilizes their enthusiasm and initiative to participate in rural vitalization. In this way we have contributed to rural vitalization with energy IoT.



The smart and electrified greenhouse in Shouguang, Shandong Province



## Case

## Water conservancy technologies facilitates rural vitalization

Cihuaixinhe River irrigated area is the largest in the north of Huaihe River area. In 2021, NARI undertook the key project of supporting facility construction and water-conservation improvement in Cihuaixinhe River irrigated area. With our self-developed integrated test and control platform, data acquisition device, and flood and drought prevention software, we established the integrated information collection system, the business application, the network system, and the network security system and control center for the water conservancy facilities of Cihuaixinhe River irrigated area. A complete smart irrigated area application system has been set up with the two key functions of safe irrigation project operation and water resource allocation, which has effectively improved the probability of irrigation and the capacity to counter disasters of flood and drought, and promoted the sound and sustainable development of local agriculture.



## Charity practice

Committed to charity cause, NARI has been exploring new forms and channels of public services and contributing to the society with concrete actions, aiming to jointly build a culturally advanced and harmonious social environment.

The Company encourages employees to participate in charity activities and provide voluntary services. We have established the Party member service team and the youth volunteer service team to popularize the knowledge on electric power, promote environmental protection, and support education. In 2021, a total of 488 employees of the Company provided 265 volunteer services of a total length of 8,000 hours.

### School publicity activity on electricity

We carried out the publicity activity about “electricity safety, energy conservation and emission reduction” in Jiangning Development Zone School in Nanjing, to popularize the general knowledge about safe use of electricity and explain the methods of energy saving and emission reduction in daily life. The activity was widely acknowledged by teachers and students.



We organized campaign on energy conservation and environmental protection in Qixia Mountain, a scenic spot in Nanjing, explaining environmental protection knowledge and the good practice of waste sorting to tourists. We also helped pick litter to promote the idea that “environmental protection starts with me” with concrete actions.

### Campaign on energy conservation and environmental protection

### Voluntary tree planting

We carried out the activity themed “Voluntary Tree Planting, for a Green Nanjing”, contributing to a greener, more harmonious and comfortable environment.



Focusing on the topics of “COVID-19 Prevention, Environmental Protection, and the Lighting Action”, we provided voluntary services and sent young volunteers to Jiangjun Mountain to publicize waste sorting knowledge, promote electric energy substitution and integrated energy services, and guide citizens to live a green and low-carbon life.

### Campaign on low-carbon development and COVID-19 prevention

Carrying out volunteer activities



### Case

#### Helping farmers with their unsold agricultural products

Huadan Town in Ningnan County, Sichuan Province, is located in the reservoir area of Baihetan Hydropower Station. As the storage period of the power station started, people in the reservoir area needed to be relocated. However, large quantities of tomatoes grown by local farmers were overstocked. In order to fully support the Baihetan Hydropower Project and help the relocated farmers improve their livelihood, NARI encouraged its employees to help them solve this problem through group buying, retail purchases, etc. Once we launched the initiative, our employees responded positively and snapped up 10,000kg of tomatoes in two days, which not only helped farmers solve the problem of unsold products and prevent them from losses, but also gave employees access to fresh agricultural products. We thus have improved the quality and efficiency of volunteer services with win-win results, and fulfilled our social responsibilities with concrete actions.



Purchase for Love



### Case

#### Supporting education to help students realize their dreams

In order to help poor students complete their studies and inspire them to be self-reliant, NARI has been carrying out education programs for four consecutive years since 2018. We purchase stationery for poor students in Gansu, and provide long-term assistance for students from poor families in Haiyuan County in Zhongwei, Ningxia. In 2021, together with State Grid Ningxia Electric Power Company, we carried out the activity themed “Passing on Love and Lighting Dreams with Electric Power”, calling on employees to make donations to support students from poor families, showing care for students in need with concrete actions.



Carrying out the support education activity



### Case

#### Promoting teaching and research progress of universities

To support the study and research conducted by university students and teachers, and promote teaching and research progress in universities, NR Electric Co., Ltd., a subsidiary of NARI, has provided scholarships and grants to reward students and teachers with outstanding performance in 15 key colleges and universities across the country since 1997, including Tsinghua University, Southeast University and Huazhong University of Science and Technology. In 2021, nearly 200 students and 35 teachers were rewarded with the scholarships and grants of the Company.



Donation agreements with universities



## Future Outlook



**When we forge ahead with courage and perseverance, our hard work will finally pay off.** In 2022, we will always give top priority to meeting the electricity demand of economic and social development. Adhering to the development philosophy of “pursuing innovation, putting quality and customers first, and promoting win-win cooperation”, we will seek breakthroughs based on new circumstances, promote high-quality development of products and services and improve people’s sense of happiness. Keeping up with the times and having great vision at heart, we will promote ecological progress and sustainable development. We will continuously care for employee and improve people’s livelihood, thus contributing to a stable and healthy economic environment, a prosperous and safe social environment, and a beautiful natural environment.



**We will lead the charge in shouldering heavy responsibilities, fully demonstrating the sense of responsibility of SOEs.** We will firmly implement the new national energy security strategy and new development philosophy, fulfill the requirements for achieving carbon peak and neutrality goals, and make sound plans for high quality development. We will promote energy transformation, and fully support the construction of the new power system and upgrading of power grid business to accelerate our growth toward becoming a global industry leader in Energy Internet. Together with all stakeholders, we will enter the new stage of China’s energy development in the new era, and forge ahead for a win-win future.





Key Performance

Indicator	Unit	2019	2020	2021
 Economic	Total assets (RMB billion)	57.425	65.962	72.733
	Revenue (RMB billion)	32.424	38.502	42.411
	Total profits (RMB billion)	5.280	5.934	6.866
	Net profit attributable to shareholders of listed companies (RMB billion)	4.343	4.852	5.642
	Total tax payment (RMB billion)	2.052	2.480	2.076
	R&D investment (RMB billion)	2.212	2.523	3.089
	Contract review rate(%)	100	100	100
 Environmental	Total investment in environmental protection (RMB 10,000)	218.26	223.93	1358.76
	Environmental protection training	12	16	16
	Electricity consumption (thermal power) (GWh)	75.3093	76.7446	74.2521
	Electricity consumption (PV power) (GWh)	5.405	4.7767	5.0047
	Gasoline consumption (ton)	217.69	171.57	126.04
	Diesel consumption (ton)	13.30	14.02	15.56
	Natural gas consumption (10,000 m³)	60.69	52.32	48.19
	Water consumption (10,000 ton)	74.74	73.63	66.83
	Water consumption per capita (ton/person)	91.03	83.62	69.97
	Effluent volume (10,000 ton)	62.65	62.05	62.19
	Discharge of hazardous waste (ton)	7.30	11.53	10.82
	Discharge of non-hazardous waste (ton)	37.50	38.90	1,518.71

Indicator	Unit	2019	2020	2021
 Environmental	Materials used in product packaging (ton)	2,845	3,150	3,373
	Carbon dioxide emissions (tCO <sub>2</sub> e)	62,356.33	63,276.17	61,237.31
	Scope I emissions (tCO <sub>2</sub> e)	1,950.56	1,699.03	1,475.56
	Scope II emissions (tCO <sub>2</sub> e)	60,405.76	61,577.14	59,761.76
 Social	Safety training (session)	255	257	292
	Participants of safety training (headcount)	19,127	23,139	26,272
	Injuries and fatalities	0	0	0
	Occupational health and safety training (session)	12	7	11
	Participants of occupational health and safety training (headcount)	652	385	690
	New occupational cases (headcount)	0	0	0
	Employee health examination coverage (%)	100	100	100
	Total number of employees (headcount)	8,211	8,806	9,551
	Total new recruits (headcount)	1,345	803	978
	Number of employees from minority ethnic groups (headcount)	194	202	250
	Labor contract signing rate (%)	100	100	100
	Coverage of social insurances (%)	100	100	100
	Employee satisfaction (%)	100	100	100
	Total charitable donations (RMB 10,000)	—	—	100



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