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南京南瑞继保工程技术有限公司  
**Nanjing NARI-Relays Engineering  
Technology Co. Ltd.**  
**2023 年 ESG 报告**  
**2023 ESG Report**

二〇二四年九月

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## 报告导读

### Report Introduction

本报告是南京南瑞继保工程技术有限公司（简称“南瑞继保”或“公司”）发布的 2023 年 ESG 报告。本报告在 2021 年和 2022 年发布可持续发展报告的基础上持续完善，披露公司 2023 年在 Environmental（环境）、Social（社会）和 Governance（治理）三个维度践行社会责任、促进可持续发展的理念、措施和绩效。

This report is the 2023 ESG report released by Nanjing NARI-Relays Engineering Technology Co., Ltd. (Hereafter referred to as "NARI-Relays" or the "Company"). On the basis of the sustainability reports released in 2021 and 2022, this report continues to improve and disclose the company's practices, measures, and performance in promoting social responsibility and sustainable development in 2023 across the Environmental, Social, and Governance dimensions.

#### 报告范围

##### Scope of Report

本报告为年度报告。报告时间范围为 2023 年 1 月 1 日至 12 月 31 日，为增强报告完整性和可比性，部分内容适当向前追溯、向后延伸。报告主体为南京南瑞继保工程技术有限公司。

This report is an annual report. The reporting period is from January 1 to December 31, 2023. To enhance the completeness and comparability of the report, some content has been appropriately backtracked or extended. The report is prepared by Nanjing NARI-Relays Engineering Technology Co. Ltd.

#### 编制依据

##### Preparation Basis

本报告的编制参照全球可持续发展标准委员会（GSSB）发布的 GRI 准则（2021）以及《中国企业社会责任报告指南（CASS-ESG 5.0）》，同时参考国务院国资委《关于中央企业履行社会责任的指导意见》、国务院国资委《央企控股上市公司 ESG 专项报告参考指标体系》、上海证券交易所《上市公司自律监管指引第 14 号——可持续发展报告（试行）》、中国国家标准化管理委员会

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《社会责任报告编写指南》（GB/T 36001-2015）、联合国可持续发展目标（SDGs）、可持续发展会计准则委员会（SASB）发布的行业准则。其中，应对气候变化的相关内容参考《国际财务报告可持续披露准则第 2 号（IFRS S2）——气候相关披露》。

This report is prepared with reference to the Global Sustainability Standards Board (GSSB) GRI Standards (2021) and the Chinese Academy of Social Sciences (CASS)'s "Guidelines for Corporate Social Responsibility Report (CASS-ESG 5.0)", as well as the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council's "Guiding Opinions on Central Enterprises Fulfilling Social Responsibilities", the SASAC's "ESG Reference Index System for Special Reports of Listed Companies Controlled by Central Enterprises", the Shanghai Stock Exchange's "Guidelines for Self-Regulation of Listed Companies No. 14 - Sustainability Report (Trial)", the China National Standardization Administration Commission's "Guidance for Social Responsibility Reporting" (GB/T36001-2015), the United Nations Sustainable Development Goals (SDGs), and the industry standards issued by the Sustainability Accounting Standards Board (SASB). Besides, reference are made to the International Financial Reporting Standards No. 2 (IFRS2) - Climate-related Disclosures for addressing climate change issues.

## 数据说明

### **Explanation of Data**

报告中的财务数据均来自南瑞继保年度财务报告和正式文件。除特别说明外，报告中所涉及货币金额均以人民币计量。公司 2023 年度财务决算的会计报表，已经由信永中和会计师事务所审计并出具了无保留意见的审计报告。

The financial data in the report are sourced from the annual financial report and official documents of NARI-Relays. Unless otherwise specified, all monetary amounts mentioned in the report are denominated in Renminbi. The financial statements for the fiscal year 2023 of the Company have been audited by ShineWing Certified Public Accountants and an unqualified audit report has been issued.

## 称谓说明

### **Description of Reference**

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为便于表述，报告中“我们”“公司”“南瑞继保”均指代“南瑞继保工程有限公司”。

For the convenience of expression, in this report, the terms "we," "the company," and "NARI-Relays" all refer to "NARI-Relays Engineering Co., Ltd."

### 外部鉴证

#### **External Assurance**

报告已经由通标标准技术服务有限公司（SGS）进行独立第三方鉴证，鉴证声明附后。

The Report has been authenticated by SGS-CSTC Standards Technical Services Co., Ltd. (SGS), an independent third party, and the Assurance Statement is attached to this Report.

### 报告获取

#### **Report Acquisition**

报告以印刷版和电子版两种形式发布，您可在南瑞继保官网下载本报告的电子文档，网址为：<https://www.nrec.com/cn/index.php/about/cause>。英文版报告为翻译版，如与中文版之间有任何异议，皆以中文版为准。如需获取纸质版报告，或对本报告内容有任何疑问或建议，敬请联系我们：

The report is published in both print and electronic versions. You can download the electronic document of this report on the official website of NARI-Relays, the website is: <https://www.nrec.com/cn/index.php/about/cause>. The English version of the report is a translated version. In case of any discrepancies between the English version and the Chinese version, the Chinese version shall prevail. If you need a hard copy of the report, or if you have any questions or suggestions regarding the content of this report, please feel free to contact us:

南京南瑞继保工程技术有限公司

Nanjing NARI-Relays Engineering Technology Co. Ltd.

地址：江苏省南京市江宁区苏源大道 69 号

Address: No. 69 Suyuan Avenue, Jiangning District, Nanjing City, Jiangsu Province

---

邮政编码: 211102

Postal Code: 211102

电话: 025-87178706

Tel: 025-87178706

传真: 025-87178700

Fax: 025-87178700

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## 总经理致辞

### Message from General Manager

在时代命题中争当答题者，在时代呼唤中同心向未来。

**Strive to be a Respondent to the Challenges of Our Time, and Unite to Move Forward into the Future.**

2023年是全面贯彻落实党的二十大精神开局之年，也是三年新冠疫情防控平稳转段后经济恢复发展的一年。面临波动复杂的经济形势，公司全体干部员工务实创新、团结奋进，圆满完成全年目标任务，保持了持续高质量发展的良好态势。公司获评国家重点高新技术企业、国家重合同守信用企业、江苏省信用管理示范企业。我们携手伙伴共绘辉煌篇章，业绩之颠再创新高，高质量发展的航船乘风破浪。

2023 marks the inaugural year for comprehensively implementing the guiding principles of the 20th National Congress of the Communist Party of China, as well as a year of economic recovery and development following a stable transition in the prevention and control of the COVID-19 pandemic over the past three years. Facing a volatile and complex economic situation, all cadres and employees of the Company have been pragmatic and innovative, united in their efforts, successfully completing the annual targets and maintaining a positive momentum of sustained high-quality development. The Company has been recognized as a national key high-tech enterprise, a national contract-abiding and trustworthy enterprise, and a credit management demonstration enterprise in Jiangsu Province. Together with our partners, we are creating a brilliant chapter, achieving new heights in performance, and navigating the waves on our journey of high-quality development.

实干笃行，精业图强，这一年我们坚持固本强基，稳健步伐扎实前行。

**Practical work and steadfast implementation - this year, we have focused on consolidating our foundation and making steady progress.**

南瑞继保探寻稳健经营之道，铸就企业强盛之基，树立现代治理之典范理念。依循现代企业制度之精髓，我们精心雕琢治理结构，ESG委员会正在筹备组建中，可持续发展理念融入血脉，优化运营效率。提高公司治理水平，拓展

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多元沟通渠道，持续提升信息披露工作水平及透明度，充分保障股东和相关投资者的知情权和利益。我们构筑坚不可摧的合规防线，恪守商业道德之高地，信息披露透明如镜，为企业转型升级、高质量发展蓄满动力。

NARI-Relays continues to explore the path of steady operation, establishing a solid foundation and setting a benchmark for modern governance. Following the principles of modern corporate governance, we have meticulously refined our governance structure. The ESG committee is being established, integrating the concept of sustainable development into our core, with the goal of optimizing operational efficiency. We aim to enhance corporate governance, expand diverse communication channels, and continuously improve the quality and transparency of information disclosure, ensuring that the rights and interests of shareholders and stakeholders are fully protected. We build an unassailable compliance defense, uphold high standards of business ethics, maintain transparency in information disclosure, and generate momentum for the transformation, upgrading, and high-quality development of the enterprise.

深耕细作，“双碳”领航，这一年我们坚持绿色为先，打造生态文明高地。

**Deep Engagement in the Carbon Peaking and Carbon Neutrality - this year, we insist in prioritizing green development and built a stronghold of ecological civilization.**

在绿色发展的大潮中，我们积极响应“双碳”目标，致力于构建新型电力系统。依托先进技术和可靠装备，助力清洁能源高效并网，推动能源转型和碳管理实践，促进低碳减排和节能技术的广泛应用。新一代调度、集控、用采系统及电力现货市场等系统成功实现批量部署，海上风电、储能等新兴产业取得突破性进展。我们坚持低碳运营，制定并实施年度环保目标，通过精细管理和有效考核，确保各项环保措施落地生根。

In the wave of green development, we actively respond to the "carbon peaking and carbon neutrality" goals and are committed to building a new type of power system. Leveraging advanced technology and reliable equipment, we support the efficient integration of clean energy into the grid, promote energy transition and carbon management practices, and facilitate the widespread application of low-carbon

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emission reduction and energy-saving technologies. The new generation of dispatching, centralized control, utilization and collection systems, as well as electricity spot market systems, have been successfully deployed in batches, leading to breakthrough progress in emerging industries such as offshore wind power and energy storage. We adhere to low-carbon operations, set and implement annual environmental protection goals, and ensure that various environmental protection measures are effectively executed and deeply rooted through meticulous management and assessment.

**创新赋能，数智发展，这一年我们坚持问题导向，匠心铸造大国重器。**

**Innovation Empowerment and Digital Intelligence Development - this year, we adhere to a problem-oriented approach and crafted key national projects with ingenuity.**

公司始终坚持“以解决问题为导向”的创新理念，深入实施创新驱动发展、引领能源科技发展。2023年，公司围绕新型电力系统和行业拓展需求，深入开展技术创新和应用推广。全面突破构网控制技术，持续推进储能产品系列化，研究变电站一体化智能运维，实现示范工程应用，打造行业标杆。不断增强基础支撑能力，助力产品质量和研发效率提升。我们勇攀科技高峰，探索技术无人区，特高压输电、柔性输电等领域原创技术突破频传捷报。工匠精神融入血脉，我们视安全质量为生命线，产品与服务精益求精。2023年，公司新承接科技项目31项，其中国家级1项。提交专利申请341件，获得专利授权279件；发表论文12篇；完成软件著作权47项，软件产品登记48项。主导和参与制修订国际、国家、行业、团体标准5项。

The Company always adheres to the innovative concept of "problem-oriented innovation", deeply implementing innovation-driven development and leading the advancement of energy technology. In 2023, the Company focused on technological innovation and application promotion in response to the needs of new power systems and industry expansion. We achieved comprehensive breakthroughs in grid-forming control technology, continuously promoted the serialization of energy storage products, researched integrated intelligent operation and maintenance for substations, achieved applications for demonstration projects, and established industry

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benchmarks. We are continually enhancing our foundational support capabilities to improve product quality and research and development efficiency. We bravely climb the peaks of technology, exploring uncharted territories and frequently achieving breakthroughs in original technologies in ultra-high voltage power transmission and flexible power transmission. The spirit of craftsmanship is ingrained in our culture; we view safety and quality as our lifeline, constantly striving for excellence in our products and services. In 2023, the Company undertook 31 new technology projects, including one at the national level. We submitted 341 patent applications and obtained 279 patent authorizations; published 12 papers; completed 47 software copyrights, and registered 48 software products. We led and participated in the revision of 5 international, national, industry, and group standards.

**携手并进，初心如磐，这一年我们坚持民生至上，协力共谱和谐篇章。**

**Joint Effort and Firm Commitment - This year, we prioritize people's livelihood and collaborate to create a harmonious chapter together.**

我们积极履行社会责任，与员工、社会等利益相关方共享发展成果。我们关注员工成长与福祉，打造多元化培训体系，优化职业通道，提供丰富的激励计划和医疗保障。在“一带一路”倡议和区域协调发展战略的推动下，我们深化供应链管理，加强与行业伙伴的合作与交流，共同构建可持续发展的行业生态。在公益事业上，我们持续投入力量，为紧急救援、乡村振兴等贡献南瑞继保力量。2023年，我们组织开展了大量志愿活动，用实际行动传递温暖与爱心。

We actively fulfill our social responsibilities, sharing the benefits of development with employees, society, and other stakeholders. We focus on the growth and well-being of our employees by building a diversified training system, optimizing career paths, and providing comprehensive incentive programs and medical benefits. Driven by the Belt and Road Initiative and the regional coordinated development strategy, we enhance supply chain management and strengthen collaboration and communication with industry partners to jointly create a sustainable industry ecosystem. In the field of public welfare, we continue to contribute our resources to emergency rescue, rural revitalization, and other initiatives. In 2023, we organized numerous volunteer activities to spread warmth and love through our actions.

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弦歌不辍，驰而不息。

**The melody lingers on, unwavering and ceaseless.**

南瑞继保以习近平新时代中国特色社会主义思想为指导，赓续奋进路，谱写新篇章，坚持技术创新驱动产业发展，践行ESG生态体系建设，切实扛起行业领军企业责任担当，持之以恒、锲而不舍、百折不挠，为全力推进公司高质量稳健长远发展，为提高国家能源安全和保障能力作出更大贡献！

Guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, NARI-Relays continues to forge ahead and write a new chapter. We adhere to technological innovation to drive industrial development, practice the development of an ESG ecological system, and shoulder the responsibilities of a leading enterprise in the industry. With perseverance and unwavering commitment, we aim to promote the company's high-quality and sustainable development, making greater contributions to enhancing national energy security and capability!

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## 关于我们

### About Us

#### 公司简介

##### Company profile

南瑞继保主要从事电力保护控制、智能电力装备和工业过程控制的研发和产业化，是国家重点高新技术企业、国家重合同守信用企业、江苏省信用管理示范企业。

NARI-Relays is primarily engaged in the research and industrialization of power protection and control, intelligent power equipment, and industrial process control. It is recognized as a "National Key High tech Enterprise", a "National Contract abiding and Creditworthy Enterprise", and a "Jiangsu Province Credit Management Demonstration Enterprise".

中国工程院沈国荣院士担任公司董事。

Academician Shen Guorong of the Chinese Academy of Engineering serves as a director of the Company.

南瑞继保核心产品市场占有率高，继电保护产品在 220kV 及以上电压等级的国内市场占有率近 40%，产品广泛应用于三峡输变电、“西电东送”、北京奥运、上海世博、杭州G20 等国家重点工程。公司的继电保护、电网安全稳定控制、高压交直流输电控制保护等技术打破了国外公司的长期技术和产品垄断，以其先进性、实用性和可靠性，提高了我国电网安全稳定运行水平。

NARI-Relays' core products hold a significant market share, nearly 40% in the domestic market for relay protection products at voltage levels of 220kV and above. These products are widely utilized in key national projects, including the Three Gorges power transmission and transformation project, the "West-to-East Power Transmission" project, the Beijing Olympics, the Shanghai World Expo, and the Hangzhou G20 Summit. The company's technologies in relay protection, power grid security and stability control, and high-voltage AC/DC transmission control have disrupted the long-standing technical and product monopoly of foreign firms. With their advanced, practical, and reliable features, these technologies have significantly

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enhanced the safety and stability of China's power grid operations.

南瑞继保坚持“做精主业、外延发展”的发展战略，产业方向从电网电厂自动化向智能电力装备、工业过程控制等领域成功拓展，开发完成柔性直流输电成套装备、高压直流断路器、特高压直流换流阀和统一潮流控制系统（UPFC）等一系列高端智能电力装备，真正掌握核心关键技术。先后承接±1100kV吉泉特高压直流、舟山五端柔性直流、500kV苏南UPFC工程、±500kV张北柔直电网等重点工程，得到各界广泛认可。公司在新能源发电、轨道交通、综合能源利用、工业过程控制等领域正积极开拓，利用公司控制保护的技术优势，实现产业的全面深化和拓展。公司还加大了国际市场开拓力度，目前南瑞继保产品已远销全球 100 多个国家和地区。

NARI-Relays adheres to the development strategy of "specializing in the main business while expanding outward," successfully broadening its focus from power grid and power plant automation to intelligent power equipment and industrial process control. It has developed high-end intelligent power equipment, such as flexible DC transmission systems, high-voltage DC circuit breakers, ultra-high-voltage DC converter valves, and unified power flow control systems (UPFC), mastering core key technologies. The Company has undertaken critical projects such as the ±1100kV Jiquan UHVDC project, Zhoushan Five-terminal Flexible DC project, 500kV Sunan UPFC project, and ±500kV Zhangbei Flexible DC grid project, gaining widespread recognition across various sectors. The Company is actively exploring opportunities in new energy generation, rail transportation, comprehensive energy utilization, and industrial process control, leveraging its technological advantages to deepen and expand its industrial endeavors. NARI-Relays has also intensified its efforts in international market exploration, with its products now exported to over 100 countries and regions worldwide.

南京南瑞继保工程技术有限公司是南京南瑞继保电气有限公司的全资子公司，是南瑞继保参与全球市场活动的投标主体之一，维护高新技术企业资质。继保工程按虚拟化法人模式运行，机构和人员与继保电气实行“双设双跨”。财务独立核算，与继保电气一体化运行、合并考核。

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NARI-Relays Engineering Technology Co. Ltd., a wholly-owned subsidiary of NR Electric Co., Ltd., serves as one of the bidding entities for NARI's global market activities, maintaining its status as a high-tech enterprise. The relay protection project operates under a virtual legal entity model, with integrated institutions and personnel working closely with NR Electric. With independent financial accounting, it operates in an integrated manner with NR electric and undergoes consolidated assessments.

南瑞继保将始终保持务实高效的运行机制、积极向上的企业文化、长远发展的战略方向，全面提升企业的核心竞争力，为我国电力和其他自动化领域科技进步多做贡献。

NARI-Relays will continue to maintain a practical and efficient operational mechanism, a positive corporate culture, and a long-term strategic vision, enhancing the company's core competitiveness and contributing to technological advancements in the electric power and automation sectors in China.



## 业务概况

### **Business Overview**

电力保护控制产业链：保障电网安全稳定运行，包含继电保护、安全稳定控制、调度集控系统、厂站自动化、配电自动化等。

Power Protection Control Industry Chain: Ensure the safe and stable operation of the power grid, including relay protection, safety and stability control, dispatching and centralized control systems, substation automation, and distribution automation.

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智能电力装备产业链：提高电网经济输送能力，包含特高压直流输电、柔性直流输电、柔性交流输电、新能源发电控制、储能控制系统等。

Intelligent Power Equipment Industry Chain: Enhance the economic transmission capacity of the power grid, encompassing ultra-high voltage DC transmission, flexible DC transmission, flexible AC transmission, new energy generation control, and energy storage control systems.

工业过程控制产业链：提升能源综合利用效率，包含工艺流程控制、环境设备监控、生产制造控制、智能运动控制、综合能源管控等。

Industrial Process Control Industry Chain: Improve comprehensive energy utilization efficiency, covering process control, environmental equipment monitoring, production control, intelligent motion control, and comprehensive energy management.

公司成立于 2001 年，在南京拥有九龙湖及产业园两个园区，在北京、广州、西安等 8 个地区设有国内区域销售和技术服务中心，在香港、英国、印度尼西亚、尼日利亚等地设立了各大洲的国际分支机构和本地化的技术服务中心。

The company was established in 2001 and has two parks in Nanjing: Jiulong Lake and Industrial Park. It operates domestic regional sales and technical service centers in eight locations, including Beijing, Guangzhou, and Xi'an, and has international branches and localized technical service centers in Hong Kong, the UK, Indonesia, and Nigeria, covering major continents.

## 顾客及市场细分

### **Customer and Market Segmentation**

公司一直本着“做精主业，外延发展”的战略文化，在稳固电力系统优势地位的前提下，积极拓展工业领域的市场应用，目前主流产品已在石化、冶金、轨道、煤炭、中小企业等行业形成规模化应用，更好地服务于国家基础建设的发展，并促进行业自动化水平的提高。

Adhering to the strategic philosophy of "focusing on core business and expanding outward", the Company has actively broadened market applications in the

industrial sector while solidifying its leading position in the power system. Currently, its mainstream products are widely used in industries such as petrochemical, metallurgy, railway, coal, and small and medium-sized enterprises, effectively supporting national infrastructure development and enhancing industry automation levels.

### 1. 顾客及市场按区域细分（六大区+境外）

#### 1. Customer and market segmentation by region (six regions + overseas)

公司在持续深耕电力系统市场的同时拓展新兴市场，聚焦中国大陆，并积极拓展海外市场业务，目前已形成覆盖中国大区所有省市的国内营销网络，产品已远销全球100多个国家和地区。

While continuing to deepen its presence in the power system market, the Company is expanding into emerging markets, concentrating on Chinese mainland and actively pursuing overseas opportunities. It has established a domestic marketing network that covers all provinces and cities in China, with products exported to over 100 countries and regions worldwide.





### 境内市场细分

#### Domestic Market Segmentation

销售部	Sales Department
“一带一路”中国制造、中国资金海外项目市场，中国品牌认可度高	"Belt and Road" Chinese manufacturing, Chinese capital overseas project market, high recognition of Chinese brands
欧美区	Western Europe
当地公司成熟市场，技术、服务充分竞争	Local companies in mature markets face intense competition in terms of technology and services.
亚洲二区	Asia Region 2
南亚保持低价竞争、中东技术标准要求高、俄语地区主要与俄罗斯和欧洲企业竞争	It maintains low-price competition in South Asia; the Middle East has high technical standards requirements; and it mainly competes with Russian and European companies in the Russian-speaking region.
亚洲一区	Asia Region 1
新兴发展中国家；中国产品作为新进入者和欧美日产品竞争激烈	Emerging developing countries where Chinese products face fierce competition as newcomers against European, American, and Japanese products.
非洲区	African region
发展中国家市场，原欧美产品占主流，中国品牌逐步占据重要份额	In developing countries, European and American products dominate the market, but Chinese brands are gradually capturing significant market share.
西北	Northwest China
市场结构简单清晰 新能源项目较多	A simple and clear market structure with numerous new energy projects.
华中	Central China
全国电力联网枢纽 水力资源极为丰富	A national power grid hub with abundant hydraulic resources.
东北	Northeast China
资源输出型特征明显	Resource-exporting characteristics,

钢煤石化多点开花	with simultaneous development in steel, coal, and petrochemical industries.
<b>华东</b>	<b>East China</b>
负荷集中，江浙领先明显 技术创新性项目需求多	Concentrated load with a significant lead from Jiangsu and Zhejiang; diverse requirements for technical innovation projects.
<b>华南</b>	<b>South China</b>
电网占有率高且稳定 新能源发电进入爆发期	High and stable grid occupancy rate; new energy power generation is entering a period of explosive growth.
<b>华北</b>	<b>North China</b>
特高压、柔直项目 新型电网建设需求大	Significant demand for ultra-high voltage and flexible direct projects, as well as new grid construction.

**境外市场细分**  
**Overseas Market Segmentation**

2. 顾客及市场按产业链细分

2. Customer and market segmentation by industry chain

通过多年积累，公司三大产业链均已形成行业优势，市场表现特色显著。

Through years of accumulation, the Company has established industry advantages in all three of its major industrial chains, with distinctive market performance.

 <p><b>电力保护控制</b></p> <ul style="list-style-type: none"> <li>• 做精核心业务</li> <li>• 市场相对集中</li> <li>• 品牌溢价明显</li> <li>• 保障电网安全</li> </ul>	 <p><b>智能电力装备</b></p> <ul style="list-style-type: none"> <li>• 重点发展业务</li> <li>• 市场专业性强</li> <li>• 技术优势明显</li> <li>• 重大装备支撑</li> </ul>	 <p><b>工业过程控制</b></p> <ul style="list-style-type: none"> <li>• 高速增长业务</li> <li>• 市场容量较大</li> <li>• 平台适应性强</li> <li>• 全面自主可控</li> </ul>
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电力保护控制	Power Protection Control
做精核心业务	Focus on core business

市场相对集中	Relatively concentrated market
品牌溢价明显	Significant brand premium
保障电网安全	Ensure power grid security
智能电力装备	Intelligent Power Equipment
重点发展业务	Focus on business development
市场专业性强	Highly specialized market
技术优势明显	Clear technological advantages
重大装备支撑	Supported by major equipment
工业过程控制	Industrial Process Control
高速增长业务	Rapidly growing business
市场容量较大	Large market capacity
平台适应性强	Strong platform adaptability
全面自主可控	Fully self-controllable

### 按三大产业链进行市场细分

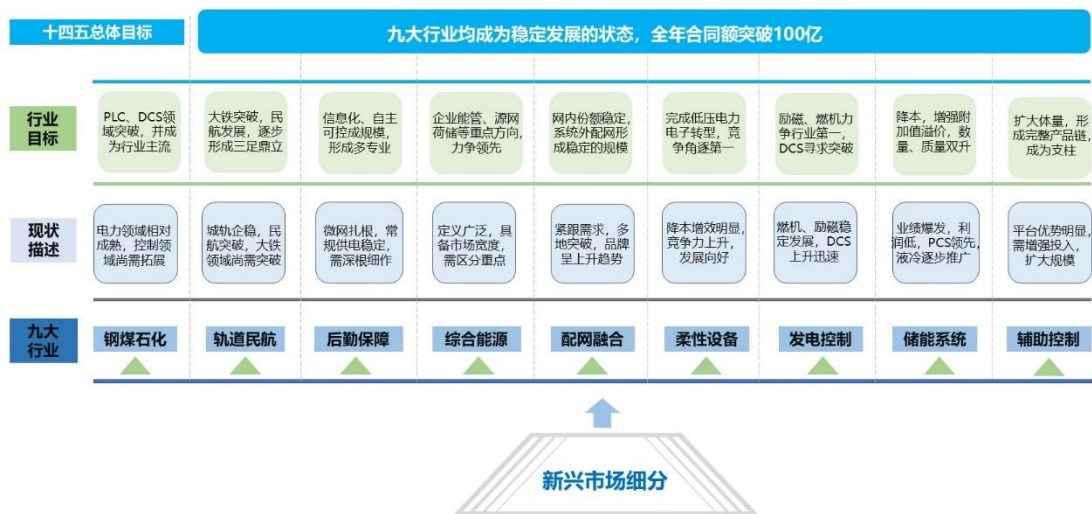
#### Market segmentation based on the three major industry chains

#### 3. 顾客及市场按新兴市场细分

#### 3. Customer and market segmentation in emerging markets

公司在深耕传统市场的同时，积极拓展新兴市场，将钢煤石化、轨道民航、后勤保障、综合能源、柔性设备、配网融合、发电控制、储能系统、辅助控制等九大行业作为重点拓展方向。

While deepening its presence in traditional markets, the Company is actively expanding into emerging markets. The nine key focus areas for expansion include steel, coal, petrochemicals, rail and civil aviation, logistics support, integrated energy, flexible equipment, integrated grid, power generation control, energy storage systems, and auxiliary control.



## 九大行业市场细分

### Market Segmentation of Nine Major Industries

十四五总体目标	Overall goals during the 14th Five-Year Plan period
行业目标	<b>Industry goals</b>
现状描述	<b>Current situation</b>
九大行业	<b>Nine major industries</b>
九大行业均成为稳定发展的状态，全年合同额突破 100 亿	All nine industries have achieved stable development, with total contract value exceeding 10 billion yuan for the whole year.
PLC、DCS 领域突破，并成为行业主流	Breakthroughs in the PLC and DCS fields have made them mainstream in the industry.
电力领域相对成熟，控制领域尚需拓展	The power sector is relatively mature, while the control sector still needs expansion.
<b>钢煤石化</b>	<b>Steel, Coal, Petrochemical</b>
大铁突破，民航发展，逐步形成三足鼎立	Rapid development in railway and civil aviation is gradually forming a tripartite balance.
城轨企稳，民航突破，大铁领域尚需突破	Urban rail transportation stabilizes, civil aviation makes breakthroughs, while railway still needs advancements.
<b>轨道民航</b>	<b>Rail and Civil Aviation</b>
信息化、自主可控成规模，形成多专业	Information technology and independent controllability have scaled up, forming multiple specialties.
微网扎根，常规供电稳定，需深根细作	Microgrids are established, conventional power supply is stable, but further detailed work is needed.

<b>后勤保障</b>	<b>Logistics Support</b>
企业能管、源网荷储等重点方向，力争领先	Focus on key fields like enterprise energy management, and source, grid, load and storage, striving to lead.
定义广泛，具备市场宽度，需区分重点	Broadly defined with wide market potential, but differentiation of focus is necessary.
<b>综合能源</b>	<b>Integrated Energy</b>
网内份额稳定，系统外配网形成稳定的规模	Stable market share within the network, with a reliable scale of external distribution networks.
紧跟需求，多地突破，品牌呈上升趋势	Responsive to demand, breaking through in various regions, and the brand being on the rise.
<b>配网融合</b>	<b>Integrated Distribution Network</b>
完成低压电力电子转型，竞争角逐第一	Transformation of low-voltage power electronics is complete, competing for the top position.
降本增效明显，竞争力上升，发展向好	Significant cost reduction and efficiency improvements, leading to increased competitiveness and positive development.
<b>柔性设备</b>	<b>Flexible Equipment</b>
励磁、燃机力争行业第一，DCS 寻求突破	Striving for industry leadership in excitation and gas turbines, while seeking breakthroughs in DCS.
燃机、励磁稳定发展，DCS 上升迅速	Gas turbines and excitation show stable development, with DCS rising rapidly.
<b>发电控制</b>	<b>Power Generation Control</b>
降本，增强附加值溢价，数量、质量双升 Focus on cost reduction and enhancing value	added premiums, improving both quantity and quality.
业绩爆发，利润低，PCS 领先，液冷逐步推广	Impressive performance, low profits; PCS leads while liquid cooling gradually expands.
<b>储能系统</b>	<b>Energy Storage Systems</b>
扩大体量，形成完整产品链，成为支柱	Expand scale, form a complete product chain, and become a pillar.
平台优势明显，需增强投入，扩大规模	The platform shows clear advantages but needs increased investment to grow.
<b>辅助控制</b>	<b>Auxiliary Control</b>
<b>新兴市场细分</b>	<b>Emerging Market Segmentation</b>

## 价值理念

### Value concept

企业宗旨：创造价值、服务社会

Enterprise Mission: Creating value, serving society

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企业愿景：百年民族高科技企业

Enterprise Vision: A national high-tech company enduring for a century

企业精神：持之以恒、锲而不舍、百折不挠

Enterprise Spirit: perseverance, persistence, and invincible determination

核心价值观：务实、求精；协作、创新

Core Values: Practicality, Excellence; Collaboration, Innovation

创新文化：以解决问题为导向

Innovative Culture: Problem-solving Oriented

以务实的态度，解决本行业历史遗留的和发展中出现的实际问题，解决一个问题前进一步，直到引领该领域技术的发展。

With a pragmatic approach, address practical issues arising from history and ongoing development in the industry, advancing step by step to lead technological progress in the field.

战略文化：做精主业、外延发展

Strategic Culture: Focus on Core Business, Expand Outward

人才理念：科学组织起来的人才是公司最大的财富

Talent Concept: Talents organized scientifically are the greatest asset of the Company.

和谐文化：工作紧张张、生活愉愉快快、经济宽宽裕裕、邻里和和睦睦

Harmonious culture: Work diligently, live happily, be economically prosperous, and maintain harmonious relationships with neighbors.

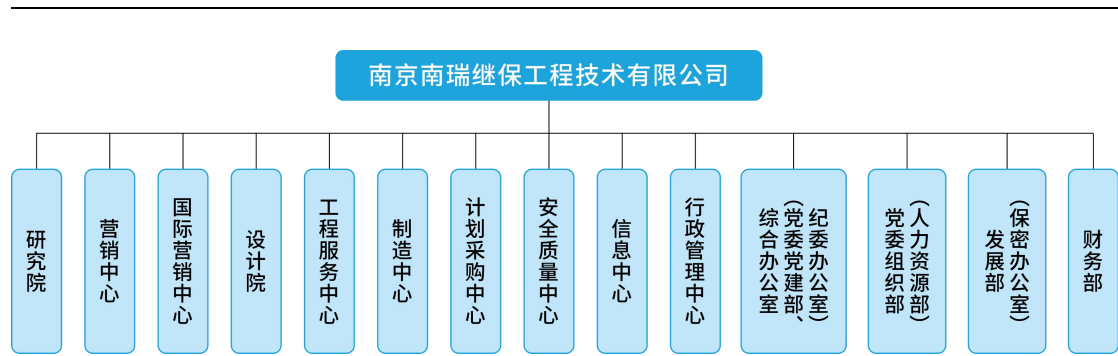
组织架构

**Organizational Structure**

**南京南瑞继保工程技术有限公司组织架构**

**Organizational Structure of Nanjing NARI-Relays**

**Engineering Technology Co., Ltd.**



### 参加的主要社会组织

#### Main social organizations attended

截止到 2023 年末，共计参加社会组织 22 个，其中担任常务理事单位 4 个、理事单位 3 个、委员单位 2 个、会员单位 12 个、集体会员 1 个。

By the end of 2023, the Company has participated in a total of 22 social organizations, including 4 as executive director units, 3 as director units, 2 as committee units, 12 as member units, and 1 as a collective member.

组织名称 Organization Name	担任职务 Position
中国电子工业标准化技术协会 China Electronics Standardization Association	理事 Director
中国电子工业标准化技术协会信息技术服务分会 Information Technology Service Sub-association of Chinese Electronics Standardization Association	理事 Director
中国信息安全技术产业联盟 China Information Security Technology Industry Alliance	委员 Member
中国机电产品进出口商会 China Chamber of Commerce for Import and Export of Machinery and Electronic Products	集体会员 Collective Member
中国安全防范产品行业协会 China Security & Protection Industry Association	会员 Member
中国电力规划设计协会 China Electric Power Planning & Engineering Association	会员 Member

中国电子信息行业联合会 China Information Technology Industry Federation	会员 Member
中国节能协会冶金工业节能专业委员会 Metallurgical Industry Energy Conservation Professional Committee of China Energy Conservation Association	会员 Member
中国民用机场协会 China Civil Airports Association	会员 Member
全联科技装备业商会 Chamber of Commerce for High Technology and Equipment Industry, ACFIC	常务理事 Executive Director
全国电站过程监控及信息标准化技术委会 National Technical Committee on Power Plant Process Control and Information	委员 Member
中关村储能产业技术联盟 China Energy Storage Alliance	会员 Member
江苏省软件行业协会 Jiangsu Software Industry Association	常务理事 Executive Director
江苏出入境检验检疫协会 Jiangsu Entry-Exit Inspection & Quarantine Association	会员 Member
江苏省储能行业协会 Jiangsu Energy Storage Association	会员 Member
江苏省商用密码产业协会 Jiangsu Commercial Cipher Industry Association	会员 Member
内蒙古自治区电力行业协会 Inner Mongolia Electric Power Association	常务理事 Executive Director
河南省石油和化学工业协会河南化工产业高质量发展推进 联盟	会员 Member

Henan Petrochemical and Chemical Industry Association Henan Chemical Industry High-quality Development Promotion Alliance	
南京节能环保产业协会 Nanjing Energy Conservation and Environmental Protection Industry Association	常务理事 Executive Director
南京市勘察设计行业协会 Nanjing Exploration and Design Association	理事 Director
南京安全技术防范行业协会 Nanjing Security Technology and Prevention Industry Association	会员 Member
南京轨道交通产业协会 Nanjing Metro Industry Association	会员 Member

### 主要荣誉与奖项

#### Main Honors and Awards

2023 年度共获得科技奖项 14 项，其中部级奖项 1 项、国学会级 5 项。

In 2023, a total of 14 technology awards were received, including one at the ministerial level and five at the national society level.

获奖项目名称 Project Name	奖项名称 Award Name	颁奖机构 Awarding Institution
低压直流配网保护控制方法和 系统 Low-voltage DC Distribution Network Protection Control Method and System	中国专利优秀奖 China Patent Excellence Award	国家知识产权局 China National Intellectual Property Administration
装备与电网协同的新能源接入	科技进步奖一等奖	中国电工技术学会

<p>系统强度量化和提升关键技术及应用</p> <p>Key Technologies and Applications for Quantifying and Enhancing the Strength of New Energy Access Systems in Collaboration with the Power Grid</p>	<p>First Prize for Technological Progress Award</p>	<p>China Electrotechnical Society</p>
<p>基于大数据应用的城市轨道交通线网智慧电力调度系统</p> <p>Intelligent Power Dispatch System for Urban Rail Transit Network Based on Big Data Applications</p>	<p>科学技术进步一等奖</p> <p>First Prize for Technological Progress</p>	<p>中国城市轨道交通协会</p> <p>China Association of Metros</p>
<p>超高压高起始磁控型可控并联电抗器系统关键技术与应用</p> <p>Key Technologies and Applications of Ultra-High Voltage High-Initiation Magnetic-Controlled Controllable Reactor Systems</p>	<p>科技进步奖三等奖</p> <p>Third Prize for Technological Progress Award</p>	<p>中国机械工业联合会、中国机械工程学会</p> <p>China Machinery Industry Federation, Chinese Mechanical Engineering Society</p>
<p>核电 1E 级厂用电保护测控关键技术及其在核电机组的应用</p> <p>Key Technologies of Electrical Protection and Control for 1E Class Nuclear Power Plants and Their Application in Nuclear Power Units</p>	<p>科技进步奖三等奖</p> <p>Third Prize for Technological Progress Award</p>	<p>中国机械工业联合会、中国机械工程学会</p> <p>China Machinery Industry Federation, Chinese Mechanical Engineering Society</p>

<p>电子负荷功率平衡系统关键技术、设备研制与工程应用</p> <p>Key Technologies, Equipment Development, and Engineering Applications of Electronic Load Power Balance Systems</p>	<p>科技进步奖三等奖</p> <p>Third Prize for Technological Progress Award</p>	<p>中国机械工业联合会、中国机械工程学会</p> <p>China Machinery Industry Federation, Chinese Mechanical Engineering Society</p>
<p>特高压高精度全光纤直流电流高速测量装备研发及产业化</p> <p>Research and Industrialization of Ultra-High Voltage High-Precision All-Fiber DC Current High-Speed Measurement Equipment</p>	<p>江苏机械工业科技进步奖一等奖</p> <p>First Prize of Jiangsu Machinery Industry Technology Progress Award</p>	<p>江苏省机械行业协会、江苏省机械工程学会</p> <p>Jiangsu Machinery Industry Association, Jiangsu Mechanical Engineering Society</p>
<p>大型汽轮发电机组次同步振荡及扭振治理的关键技术及应用</p> <p>Key Technologies and Applications for Controlling Subsynchronous Oscillation and Torsional Vibration in Large Steam Turbine Generator Units</p>	<p>江苏省电力科学技术进步奖一等奖</p> <p>First Prize of Jiangsu Province Electric Power Technological Progress Award</p>	<p>江苏省电机工程学会</p> <p>Jiangsu Society for Electrical Engineering</p>
<p>高性能直流控制保护平台关键技术及应用</p> <p>Key Technologies and Applications of High-performance DC Control Protection Platforms</p>	<p>江苏省电力科学技术进步奖二等奖</p> <p>Second Prize of Jiangsu Province Electric Power Technological Progress Award</p>	<p>江苏省电机工程学会</p> <p>Jiangsu Society for Electrical Engineering</p>
<p>中压配电网深度融合关键技术研究及成套应用</p>	<p>江苏省电力科学技术进步奖二等奖</p>	<p>江苏省电机工程学会</p> <p>Jiangsu Society for</p>

Research on Key Technologies for Deep Integration of Medium-Voltage Distribution Networks and Their Complete Set Applications	Second Prize of Jiangsu Province Electric Power Technological Progress Award	Electrical Engineering
高效自适应特高压换流站/变电站重大灭火装备的研制及应用 Research and Application of Major Firefighting Equipment for High-Efficiency Adaptive Ultra-High Voltage Converter Stations/Substations	江苏省电力科学技术进步奖三等奖 Third Prize of Jiangsu Province Electric Power Technological Progress Award	江苏省电机工程学会 Jiangsu Society for Electrical Engineering
有源配电网柔性控制关键技术及应用 Key Technologies and Applications of Flexible Control in Active Distribution Networks	江苏省电力科学技术进步奖三等奖 Third Prize of Jiangsu Province Electric Power Technological Progress Award	江苏省电机工程学会 Jiangsu Society for Electrical Engineering
自主可控特高压直流控制保护系统 Indigenous Controllable and High Voltage DC Control Protection Systems	江苏省行业领域优秀科技进展 Excellent Technological Progress in Industry Sectors of Jiangsu Province	江苏省科学技术协会 Jiangsu Association of Science and Technology
一种基于击穿二极管的功率模块冗余供电电路及控制方法 A Redundant Power Supply	南京专利奖优秀奖 Nanjing Patent Excellence Award	南京市知识产权局 Nanjing Intellectual Property Office

Circuit and Control Method for  
Power Modules Based on  
Breakdown Diodes







## 机械工业科学技术奖 证书

为表彰机械工业科学技术奖获得者,特颁发此证书。

项目名称: 超高压高起始磁控型可控并联电抗器系统关键技术与应用

奖励类别: 科技进步奖

奖励等级: 三等

获奖单位: 南京南瑞继保工程技术有限公司

证书编号: D2302030-04



## 机械工业科学技术奖 证书

为表彰机械工业科学技术奖获得者,特颁发此证书。

项目名称: 核电1E级厂用电保护测控关键技术及其在核电机组的应用

奖励类别: 科技进步奖

奖励等级: 三等

获奖单位: 南京南瑞继保工程技术有限公司

证书编号: D2302139-02





## 机械工业科学技术奖 证书

为表彰机械工业科学技术奖获得者,特颁发此证书。

项目名称: 电子负荷功率平衡系统关键技术、设备研制与工程应用

奖励类别: 科技进步奖

奖励等级: 三等

获奖单位: 南京南瑞继保工程技术有限公司

证书编号: D2302029-02



## 荣誉证书

为表彰2023年度江苏机械工业科技进步奖获奖单位,  
特颁发此证书,以资鼓励。

获奖项目: 特高压高精度全光纤直流电流高速测量装备研发及  
产业化

获奖等级: 一等奖

获奖单位: 南京南瑞继保工程技术有限公司

证书编号: 2023190F48-027-D2











<b>创新平台</b> <b>Innovation Platform</b>	<b>认定机构</b> <b>Recognizing Institution</b>
高新技术企业 High-tech Enterprise	江苏省科学技术厅、江苏省财政厅、国家税务 总局江苏省税务局 Jiangsu Provincial Department of Science and Technology, Department of Finance of Jiangsu Province, and Jiangsu Provincial Tax Service, State Taxation Administration
南京市级工程技术研究中心 Nanjing Municipal Engineering Technology Research Center	南京市科学技术局 Nanjing Municipal Science and Technology Bureau
南京市级工程研究中心 Nanjing Municipal Engineering Research Center	南京市发展和改革委员会 Nanjing Municipal Commission of Development & Reform
南京市级企业技术中心 Nanjing Municipal Enterprise Technology Center	南京市工业和信息化局 Nanjing Municipal Bureau of Industry And Information Technology



通过的体系/资质认证

Certification/Accreditation Achieved

体系缩写 System Abbreviation	体系名称 System Name
ISO 9001	质量管理体系 Quality management system
ISO 14001	环境管理体系 Environmental management system
ISO 45001	职业健康管理体系 Occupational health and safety management system
ANSI ESD S20.20/IEC-61340-5-1	防静电标准符合性认证 ESD (Electrostatic Discharge) Standard Compliance Certification
ISO 20000	信息技术服务管理体系 Information Technology Service Management System

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ISO 27001	信息安全管理体系 Information Security Management System
GB/T 29490-2013	知识产权管理体系 Intellectual Property Management System
ISO 50001	能源管理体系 Energy management system
CMMI5	软件能力成熟度模型集成 Software Capability Maturity Model Integration

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## ESG 管理

### ESG management

#### (一) ESG 理念

##### (I) ESG Concept

南瑞继保作为电力及其关联领域的科技先锋，矢志不渝地引领电力行业创新浪潮，筑牢电网安全与高效运行的基石，同时加速推动我国电网、信息通信、电力生产、绿色节能及工业制造的全面飞跃，提供不可或缺的技术引擎。公司深度融合 ESG 管理理念于战略蓝图与日常运营的细微之处，携手政府、股东、员工、客户及合作伙伴等多元利益共同体，共同编织一幅共创繁荣、共享成果的生态价值网络。我们致力于塑造一个负责任、值得信赖的行领航者形象，不懈追求经济效益、社会效益与环境效益的和谐共生，开创可持续发展的新纪元。

As a technological pioneer in the power sector and its related fields, NARI-Relays is dedicated to spearheading innovation in the industry, establishing a robust foundation for the safe and efficient operation of the power grid. The Company accelerates the comprehensive advancement of China's power grid, information communication, power generation, green energy conservation, and industrial manufacturing, serving as an indispensable technological engine. The Company integrates ESG management principles into its strategic vision and daily operations, collaborating with diverse stakeholders, including government, shareholders, employees, customers, and partners, to weave a network of ecological value that fosters shared prosperity. We are committed to shaping a responsible and trustworthy leader image, relentlessly pursuing the harmonious coexistence of economic, social, and environmental benefits, and ushering in a new era of sustainable development.



## (二) ESG 治理架构

### (II) ESG Governance Framework

为深化 ESG 理念与策略的实践，南瑞继保正加速构建一套稳固且高效的 ESG 治理体系，旨在显著提升公司的可持续发展竞争力。公司决定成立 ESG 委员会与 ESG 工作组，目前在筹备中，预计 2025 年年初组建完成。这一举措从决策核心至执行末梢，全面厘清了各部门在 ESG 领域的职责、角色与担当，确保 ESG 议题无缝融入公司战略蓝图，并得到有效贯彻。

To deepen the practice of ESG concepts and strategies, NARI-Relays is accelerating the establishment of a solid and efficient ESG governance system, aimed at significantly enhancing its competitive edge in sustainable development. The Company plans to establish an ESG committee and an ESG working group, currently under preparation and expected to be fully operational by early 2025. This measure clarifies the responsibilities, roles, and commitments of various departments in the ESG field from the decision-making core to the execution end, ensuring that ESG issues are seamlessly integrated into the company's strategic blueprint and effectively

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implemented.

拟颁布《南瑞继保环境、社会及治理（ESG）委员会议事规则》，ESG 委员会其核心职责在于为公司环境、社会及治理事务提供决策支持、深入研究并贡献建议，同时监督并促进公司在环保、气候变化应对、社会责任履行及公司治理规范等方面的卓越实践。委员会由确保每年至少召开一次正式会议，面对紧急情况时更可灵活召集临时会议，引领公司在可持续发展的征途上稳步前行，尤其聚焦于 ESG 相关事务的全面推进。

It is proposed to promulgate the "NARI-Relays ESG Committee Rules of Procedure", with the core responsibility of the ESG Committee to provide decision support, in-depth research, and recommendations for the company's environmental, social, and governance affairs, while supervising and promoting the company's excellent practices in environmental protection, climate change response, social responsibility, and corporate governance norms. The committee is responsible for ensuring that formal meetings are held at least once a year, and can convene ad hoc meetings flexibly in response to emergencies, guiding the company to steadily advance on the journey of sustainable development, with a particular focus on the comprehensive promotion of ESG-related matters.

ESG 委员会之下，拟成立 ESG 工作组作为执行的中坚力量，致力于精细规划并持续优化公司的 ESG 目标与行动计划，通过高效组织、积极推动，确保 ESG 战略体系与机制建设的稳步落地。同时，工作组还承担着协调、监督与推动各部门及下属单位 ESG 工作的重任，并定期向 ESG 委员会提交详尽的工作进展报告，确保信息透明与持续改进。

Under the ESG Committee, an ESG working group is planned to be established as the backbone force for execution, dedicated to detailed planning and continuous optimization of the company's ESG goals and action plans. Through efficient organization and active promotion, it ensures the steady implementation of the ESG strategic system and mechanisms. At the same time, the working group also undertakes the important task of coordinating, supervising, and promoting the ESG work of various departments and subordinate units, and regularly submits detailed work progress reports to the ESG Committee to ensure information transparency and

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continuous improvement.

拟组建 ESG 工作组下设的办公室，来作为公司 ESG 实践的“神经中枢”。拟汇聚综合办公室、发展部、研究院等横跨多个关键领域的 14 个部门与机构，它们携手并进，共同驱动公司 ESG 目标及各项关键绩效指标的达成，不断攀 ESG 表现的新高度，为公司乃至行业的可持续发展贡献坚实力量。

An office will be formed under the ESG working group to act as the "nerve center" for ESG practices. This office will integrate 14 departments and institutions from key areas such as the General Office, Development Department, and Research Institute, collaborating to drive the achievement of the company's ESG goals and key performance indicators, continually elevating ESG performance and contributing to sustainable development in both the Company and the industry.

### **(三) ESG 工作推进**

#### **(III) Advancement of ESG Initiatives**

南瑞继保在企业运营的广阔舞台上，深度融合经济、社会与环境的协调发展理念，将 ESG 管理视为战略核心，精心策划并执行全面而细致的 ESG 管理蓝图，引领企业向更加绿色、和谐与可持续的未来迈进。此外，南瑞继保创新培训模式，通过线上线下无缝衔接、内外结合的专业课程，为公司上下提供了理论与实践并重的知识盛宴。这一系列系统化、全方位的培训，不仅深化了员工对 ESG 理念的理解，更促进了 ESG 管理技能与实践能力的全面提升。这一系列举措，不仅优化了公司的 ESG 治理架构，更显著提升了南瑞继保在 ESG 管理领域的竞争力与影响力，开启了企业可持续发展新篇章。

NARI-Relays continues to deeply integrate the concept of coordinated development of economy, society, and environment on the broad stage of enterprise operation, regards ESG management as a strategic core, meticulously plans and implements a comprehensive and detailed ESG management blueprint, leading the Company towards a greener, more harmonious, and sustainable future. In addition, NARI-Relays has innovated its training model, offering a rich blend of theory and practice through seamless online and offline professional courses that integrate both internal and external resources. This systematic and comprehensive series of training not only deepened employees' understanding of ESG concepts but also fostered

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significant improvements in ESG management skills and practical capabilities. These measures not only optimized the company's ESG governance structure but also markedly enhanced NARI-Relays' competitiveness and influence in the field of ESG management, ushering in a new chapter for the enterprise's sustainable development.

#### **(四) 利益相关方沟通**

##### **(IV) Stakeholder Engagement**

南瑞继保将社会价值创造置于战略高度，矢志不渝地追求构建一种和谐共生、互利共赢的发展范式。为此，公司不遗余力地构筑并持续优化与多元利益相关者的全方位沟通桥梁，通过一系列高效、透明的交流机制，如官方网站的实时信息披露、以及微信公众号等新媒体平台的互动反馈，确保每一个声音都被听见，每一份关切都得到回应。

NARI-Relays prioritizes the creation of social value at a strategic level and is dedicated to building a development paradigm that is harmonious, symbiotic, and mutually beneficial. To achieve this, the Company is committed to establishing and continuously improving comprehensive communication channels with diverse stakeholders, ensuring that every voice is heard and every concern is addressed through efficient and transparent mechanisms, including real-time information disclosure on the official website and interactive feedback on platforms like WeChat.

我们坚信，只有充分保障股东与投资者的知情权与参与权，让他们能够充分行使权利；同时，坚决维护员工的合法权益，营造公正、法治的工作环境；对待客户和供应商，我们秉持公平交易、诚信为本的原则，共筑信任基石；此外，我们还积极拥抱政府监督与社会各界的广泛评议，将其视为推动公司持续进步的重要力量。南瑞继保正以开放包容的姿态，携手所有利益相关方，共创繁荣未来。

We believe that safeguarding the rights to information and participation for shareholders and investors, while defending employees' legitimate rights in a fair and lawful environment, is crucial. We uphold principles of fair trade and integrity with customers and suppliers, building a foundation of trust. Additionally, we embrace government oversight and societal evaluations as essential forces for the company's continuous improvement. NARI-Relays is taking an open and inclusive approach,

collaborating with all stakeholders to create a prosperous future.

我们积极寻求外部专家咨询，在专家指导下，通过问卷调研、访问访谈等方式，总结提炼形成利益相关方的诉求与期望，并给予回应。

We actively seek external expert consultation, summarizing and refining stakeholder demands and expectations through questionnaires and interviews, and responding accordingly.

利益相关方类别 Stakeholder Category	诉求与期望 Demands and expectations	沟通与回应 Communication and Response
政府和监管机构 Governments and regulatory authorities	守法合规经营 Compliance with laws 促进经济发展 Promote economic development 支持地区发展 Support regional development 保障电力安全 Ensure electricity safety 优化能源结构 Optimize the energy structure	遵守法律法规 Adhere to laws and regulations 贯彻国家政策 Implement national policies 建立政府间合作机制 Establish intergovernmental cooperation mechanisms 接受监督考核 Accept supervision and evaluation 落实国家战略 Implement national strategies
股东和投资者 Shareholders and investors	企业治理 Corporate governance 财务表现 Financial performance	完善治理结构 Improve governance structure 提升盈利能力 Enhance profitability 全面风险管理 Comprehensive risk management

	<p>安全稳健经营 Safe and steady operation 信息披露透明 Transparent information disclosure ESG 表现 ESG performance 保障股东利益 Protect shareholder interests</p>	<p>Comprehensive risk management 社会责任履行、ESG 报告 Corporate Social Responsibility, ESG Reporting 保持稳定分红 Maintain stable dividends</p>
<p>员工 Employees</p>	<p>保障员工权益 Respect for human rights 员工成长与发展 Employee growth and development 职业健康与安全 Occupational health and safety 良好的工作环境 Good working environment</p>	<p>薪酬福利体系及绩效考核管理 Compensation and benefits systems and performance evaluation management 完善培训及晋升机制 Improve training and promotion mechanisms 组织召开职工代表大会 Hold regular employee representative assemblies 定期进行员工满意度调查 Conduct regular employee satisfaction surveys 关注员工身心健康 Focus on employees' physical and mental health 员工关怀与沟通活动</p>

		Employee care and communication activities
客户 Customers	产品质量保障 Product Quality Assurance 优化服务质量 Optimize service quality 客户权益保护 Rights & Interests Protection for Customers	产品质量管控、产品创新 Product quality control and product innovation 客户沟通、客户关系维护 Customer communication, and customer relationship maintenance 严格遵守法律、合同内容 Strictly abide by laws and contractual obligations
供应商与合作伙伴 Suppliers and partners	公平透明 Fair and transparent 合作共赢 Win-win cooperation	打造责任供应链 Build a responsible supply chain 开展战略合作 Engage in strategic cooperation
行业与协会组织 Industry and Association Organizations	促进行业发展 Promote industry development 参与行业标准制定 Participate in industry standard formulation	行业交流与会议 Facilitate industry exchanges and conferences 行业展会与科研合作 Engage in industry exhibitions and research collaborations
公众、媒体及非政府组织 Public, Media, and NGO	信息公开、运营 Ensure information disclosure 维护公共关系 Maintain public relations 热心公益慈善	接受媒体调研访谈 Participate in media research and interviews 助力乡村振兴 Support rural revitalization 开展志愿公益活动 Engage in volunteer activities

	<p>Engage in charitable activities</p> <p>促进社区、城市发展</p> <p>Promote community and urban development</p> <p>气候变化</p> <p>Climate change</p> <p>生态环境保护</p> <p>Ecological environmental protection</p>	<p>积极的社区投资建设</p> <p>Invest positively in community development</p> <p>减缓和适应气候变化</p> <p>Mitigation and adaptation to climate change</p> <p>节能减排</p> <p>Energy saving and emission reduction</p>
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## （五）ESG 议题管理

### （V）Management of ESG Topics

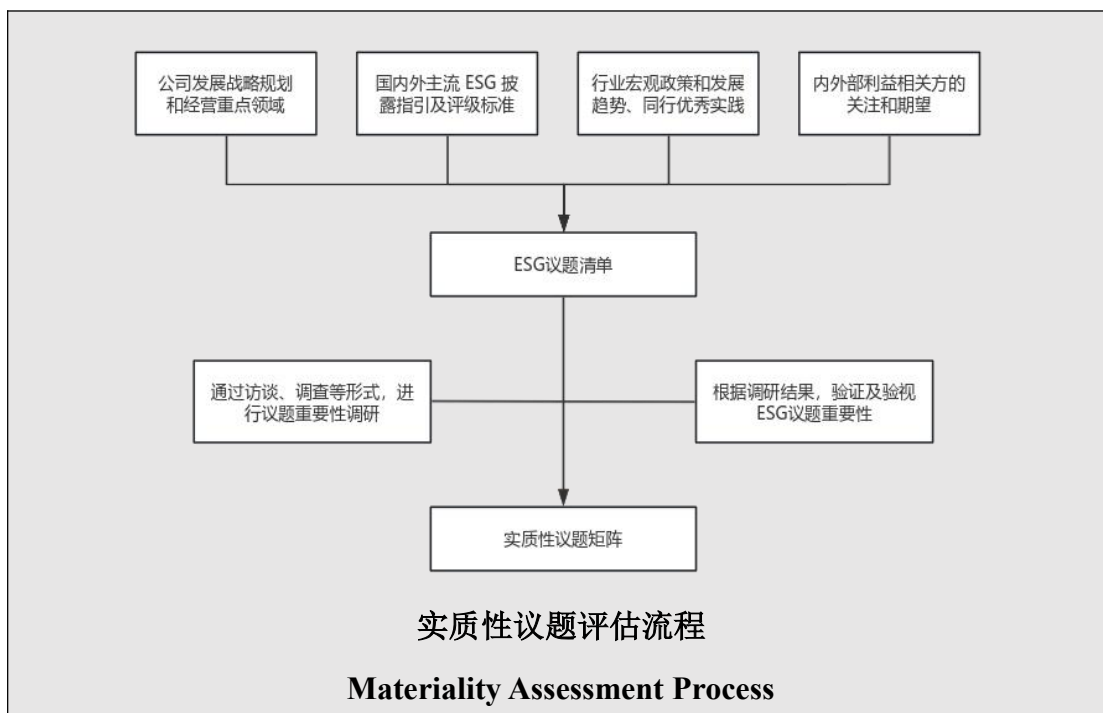
南瑞继保秉持前瞻视野与深邃洞察，紧密围绕自身发展战略蓝图，深度融合内外部利益相关者的深切关注与殷切期望，全面对标国内外顶尖的 ESG 标准体系、宏观政策的导向脉络以及行业发展的澎湃浪潮。公司严格遵循实质性、全面性与利益相关方广泛参与的核心原则，创新性地构建了一个双重视角下的议题筛选框架——既审视议题对“南瑞继保长远可持续发展战略的核心价值”，又衡量其对“外部社会各界及关键利益相关方影响力的深远程度”。

NARI-Relays adheres to a forward-looking vision and profound insights, closely aligning with its development strategic blueprint while deeply integrating the keen attention and earnest expectations of both internal and external stakeholders. The company comprehensively benchmarks against top ESG standards systems domestically and internationally, the guiding direction of macro policies, and the dynamic trends in industry development. The Company strictly follows the core principles of substance, comprehensiveness, and broad stakeholder participation, innovatively constructing a dual-perspective topic selection framework. This framework evaluates the core value of topics for NARI-Relays' long-term sustainable development strategy while assessing their profound impact on society and key stakeholders.

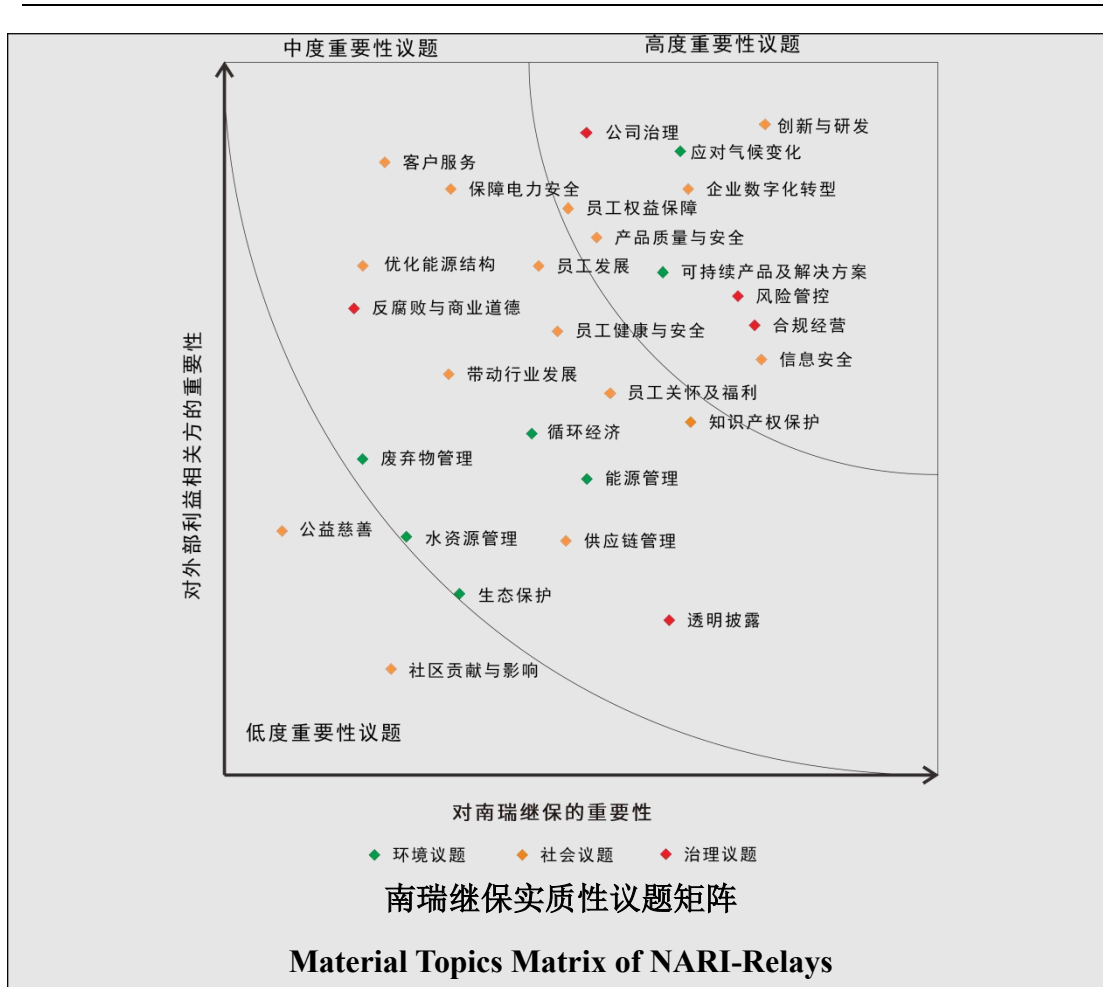
在这一科学严谨的方法论指导下，南瑞继保对报告期内涌现的众多议题进行了全面而细致的识别与深度剖析，历经多轮严谨评估与精心筛选，依据公司发展战略规划，最终精准锁定了 2023 年度对公司发展具有实质性影响的议题清单。这一过程不仅彰显了南瑞继保对 ESG 实践的深刻理解与高度承诺，更为公司在新时代背景下，实现高质量发展、构建可持续发展生态奠定了坚实基础。

Guided by this rigorous methodology, NARI-Relays undertook a comprehensive and detailed identification and in-depth analysis of numerous issues that emerged during the reporting period. After multiple rounds of stringent evaluation and careful selection, the list of issues identified as having a substantial impact on the company's development in 2023 was precisely determined, based on the company's strategic planning. This process not only highlights NARI-Relays' deep understanding and

strong commitment to ESG practices but also establishes a solid foundation for achieving high-quality development and building a sustainable development ecosystem in the context of the new era.



公司发展战略规划和经营重点领域	Company development strategy planning and key business areas
国内外主流 ESG 披露指引及评级标准	Mainstream ESG disclosure guidelines and rating standards at home and abroad
行业宏观政策和发展趋势、同行优秀实践	Industry macro policies and development trends, excellent practices among peers
内外部利益相关方的关注和期望	Attention and expectations from internal and external stakeholders
ESG 议题清单	ESG Issue List
通过访谈、调查等形式，进行议题重要性调研	Conduct research on the materiality of the topics through interviews, surveys, etc.
根据调研结果，验证及验证 ESG 议题重要性	Based on the research results, verify and validate the importance of ESG topics.
实质性议题矩阵	Material topics matrix



中度重要性议题	Moderately material topics
高度重要性议题	Highly material topics
客户服务	Customer service
公司治理	Corporate governance
创新与研发	Innovation and R&D
应对气候变化	Addressing climate change
保障电力安全	Ensure electricity safety
企业数字化转型	Enterprise digital transformation
员工权益保障	Protection of employees' rights and interests
产品质量与安全	Product quality and safety
优化能源结构	Optimize the energy structure
员工发展	Human resource development
可持续产品及解决方案	Sustainable products and solutions
反腐败与商业道德	Anti-corruption and business ethics
风险管控	Risk management
员工健康与安全	Employee health and safety
合规经营	Compliance operation
带动行业发展	Drive industry development

信息安全	Information security
员工关怀及福利	Employee care and benefits
循环经济	Circular economy
知识产权保护	Intellectual property protection
废弃物管理	Waste management
能源管理	Energy management
公益慈善	Charity
水资源管理	Water resources management
供应链管理	Supply chain management
生态保护	Ecological conservation
透明披露	Transparent disclosure
社区贡献与影响	Community contributions and impact
低度重要性议题	Low material topics
对南瑞继保的重要性	The importance of NARI-Relays
环境议题	Environmental topics
社会议题	Social topics
治理议题	Governance topics
对外部利益相关方的重要性	Importance to external stakeholders

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## 一、稳健优先·做科学运营的实践者

### **I. Priority on Stability · To Be a Practitioner of Scientific Operation**

推动企业高质量发展的核心要义在于企业管理水平的飞跃式提升，南瑞继保矢志不渝地深化公司法人治理结构的优化与革新，构建起一套坚不可摧的内部管理体系与风险防控机制，旨在全面规范公司运营流程，秉持诚信为本的经营理念，恪守廉洁自律的职业道德，致力于信息披露工作的透明高效与投资者关系的和谐共赢。公司不断精进，力求在提升治理效能与价值创造能力的征途上实现新的跨越，引领企业向高质量发展的巅峰迈进。本篇章从完善公司治理、恪守商业诚信两维度入手，在规范运行、风险防控、合规管理、财税管理、商业诚信等方面响应联合国可持续发展目标 SDGs12、16 项的要求。

The core of promoting high-quality enterprise development lies in the leapfrog improvement of management standards. NARI-Relays is unwavering in its commitment to optimizing and innovating the company's corporate governance structure, establishing a robust internal management system and risk control mechanism. This aims to comprehensively standardize operational processes, uphold a business philosophy rooted in integrity, adhere to the professional ethics of honesty and self-discipline, and ensure transparent and efficient information disclosure along with harmonious, win-win investor relations. The Company continually strives for improvement, seeking new breakthroughs in enhancing governance efficiency and value creation capabilities, thus guiding the enterprise toward the pinnacle of high-quality development. This chapter addresses two dimensions: improving corporate governance and maintaining business integrity, in response to the requirements of the UN Sustainable Development Goals (SDGs) 12 and 16 regarding standard operations, risk prevention and control, compliance management, financial and tax management, and business integrity.

南瑞继保与 SDGs

**NARI-Relays and SDGs**



## (一) 完善公司治理

### (I) Improve Corporate Governance

南瑞继保坚定不移地恪守法律底线，秉持诚信合规的核心理念，致力于构建全方位透明化的运营模式。公司不遗余力地精进治理结构，构筑起坚如磐石的管理制度体系，同时，深度强化企业内部控制与风险管理机制，确保每一步发展都稳健有力。通过这一系列举措，南瑞继保不断突破自我，实现治理能力的显著提升与高质量发展水平的持续跃升，为企业的长远可持续发展筑起坚不可摧的堡垒，引领行业迈向更加辉煌的未来。

NARI-Relays adheres unwaveringly to the bottom line of the law, upholds the core values of integrity and compliance, and is committed to building a comprehensive and transparent operating model. The Company spares no effort to improve its governance structure, building a solid management system, while also strengthening internal control and risk management mechanisms to ensure steady and robust development at every step. Through this series of measures, NARI-Relays continues to surpass itself, achieve a significant improvement in governance capabilities and a continuous leap in the level of high-quality development, build an indestructible fortress for the long-term sustainable development of enterprises, and lead the industry towards a more brilliant future.

#### 1. 规范运行

##### 1. Standardized Operation

公司管理层积极落实董事会、股东大会决策部署，按照《中华人民共和国公司法》、《公司章程》履行职责。公司设总经理 1 名、副总经理 5 名，由董事会聘任或解聘。根据《国家电网有限公司经理层成员任期制和契约化管理办法》，对高层领导进行任期制和契约化管理，签订岗位聘任协议。每年签订年度经营业绩承诺书，依据考核结果兑现薪酬和实施聘任，有效激发高管层活力。

The company's management actively implements the decisions of the board of directors and shareholders' meetings, and fulfills its responsibilities in accordance

with the Company Law of the People's Republic of China and the company's articles of association. The Company has one general manager and five deputy general managers, who are appointed or dismissed by the board of directors. According to the "Management Measures of SGCC for the Term System and Contractual Management of Senior Management Members", senior leaders are subject to term-based and contractual management, and are required to sign a position appointment agreement. Each year, an annual performance commitment letter is signed, which effectively stimulates the vitality of senior management based on assessment results to fulfill compensation and implementation of appointments.

截至报告期末，高管结构如下： As of the end of the reporting period, the executive structure is as follows:		
<b>高管年龄分布</b> <b>Age Distribution</b>		
指标名称 <b>Indicators</b>	指标单位 <b>Unit</b>	2023 年 <b>2023</b>
40-49 岁 40-49 years old	%	50.0%
50-59 岁 50-59 years old	%	50.0%
<b>高管文化分布</b> <b>Education Level Distribution</b>		
指标名称 <b>Indicators</b>	指标单位 <b>Unit</b>	2023 年 <b>2023</b>
硕士学位 Master's degree	%	83.3%
学士学位 Bachelor's degree	%	16.7%
<b>高管专业经验分布</b>		

Professional Experience Distribution		
指标名称 Indicators	指标单位 Unit	2023 年 2023
正高级工程师 Senior Engineer	%	100%

## 2. 风险防控

### 2. Risk Management

南瑞继保设立全面风险管理委员会，制定全面风险管理与内部控制、审计工作管理制度，促进风险管理全面融入企业运营，提升风险防范和管理能力。NARI-Relays established a comprehensive risk management committee and formulated management systems for comprehensive risk management, internal control, and audit work, to promote the full integration of risk management into corporate operations and enhance risk prevention and management capabilities.

#### 数读继保

##### Data on NARI-Relays

- 发布风控简报 12 份；  
Published 12 risk control briefings;
- 开展内部专项审计 7 项，审计整改完成率达 92%；  
Carried out 7 internal special audits, with a completion rate of 92% for audit rectification.
- 完成 2023 年度内部控制评价 1 次；  
Completed internal control evaluation once in 2023.

#### (1) 深化风控体系建设

##### (1) Deepen the development of risk management system

深化“全员、全业务、全流程”风险防控体系建设运行，细化制定年度风控工作方案，明确工作任务，有序推进风控措施落实落地；加强对潜在风险事件的跟踪和防控，提升风险防范和管理能力；针对职能管理和产业运行两个方面，

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立体多维开展重大风险评估，支撑风险定位更加科学；开展重大风险提示及经营风险预警，加强风险监督，提升风险监测水平。每月发布由风险提示和各部门风控工作汇总组成的风控简报。

The Company deepens the development and operation of the risk prevention and control system of "all staff, all businesses, and all processes", refines and formulates annual risk control work plans, clarifies work tasks, and promotes the implementation of risk control measures in an orderly manner. It strengthens the tracking and prevention of potential risk events, enhances risk prevention and management capabilities; conducts comprehensive and multi-dimensional major risk assessments in terms of functional management and industrial operation to support more scientific risk positioning. It carries out major risk alerts and operational risk warnings, strengthens risk supervision, and enhances risk monitoring capabilities. A risk briefing is issued monthly, consisting of risk alerts and summaries of risk control work from various departments.

## **(2) 提升审计监督效能**

### **(2) Enhance the efficiency of audit supervision**

持续完善审计体制机制建设，对经营管理中的重点领域、风险环节和关键岗位规范管理实施审计监督，对三重一大决策、销售业务管理、采购业务管理重点费用管理、基建管理等重大事项规范性开展合规性审计检查，充分发挥内部审计在公司治理中的作用，促进内部管理规范化、风险防控常态化，增强抵抗风险的能力。

The Company continuously improves the development of the audit system and mechanism, conducts audit supervision on key areas, risk points, and critical positions in operational management, carries out compliance audit inspections on major issues such as decisions on major matters, major personnel appointments and removals, major projects and large amounts of funds, sales business management, procurement business management, key expense management, and infrastructure management, fully leverages the role of internal audit in corporate governance, promotes internal management standardization, normalizes risk prevention and control, and enhances the ability to resist risks.

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### (3) 优化内部控制体系

#### **(3) Optimize internal control system**

持续优化和完善内部控制体系和运行机制，建立由业务部门、风控办、监督部门组成的风险管理“三道防线”，为风控工作的有序开展提供组织保障；根据业务流程合规性和适用性，动态更新员工岗位履职规范，提高全员日常业务风险防范能力；对所属单位定期开展内部控制执行情况的监督评价，促进内控体系持续优化。2023 年度保持了有效的内部控制。

The Company continuously optimizes and improves the internal control system and operating mechanism, establishes a risk management "three lines of defense" composed of business departments, risk control offices, and supervisory departments to provide organizational support for the orderly conduct of risk control work; dynamically updates employee job performance standards according to the compliance and applicability of business processes, and enhances the daily business risk prevention capabilities of all staff; conducts regular internal control performance evaluations for affiliated units to promote the continuous optimization of the internal control system. Internal control was maintained efficient in the year 2023.

### 3. 合规管理

#### **3. Compliance Management**

南瑞继保始终坚持以习近平法治思想为引领，通过有效防控合规风险，提升公司依法合规经营管理水平，诚信经营、健全合规体系、完善运行机制、聚焦重点领域、提升风控能力、培育合规文化。

NARI-Relays always adheres to the guidance of Xi Jinping Thought on the Rule of Law, effectively controls compliance risks, enhances the company's level of lawful and compliant operation and management, operates with integrity, improves compliance systems, perfects operational mechanisms, focuses on key areas, enhances risk control capabilities, and fosters a culture of compliance.

见证荣耀

**Witness the Glory**

2023 年南瑞继保获评江苏省“守合同重信用”企业。

In 2023, NARI-Relays was awarded the title of "Contract-abiding and Credit-worthy Enterprise" in Jiangsu Province.

**(1) 聚焦体系建设，优化完善合规机制**

**(1) Focus on system development, optimize and improve compliance mechanisms**

深入贯彻依法治企，推进以公司章程为统领，以具体制度为支撑，以操作指引为补充的合规体系，促进合规管理与经营管理融合。

The Company thoroughly implements the rule of law in enterprise management, and promotes a compliance system guided by the company's articles of association, supported by specific regulations, and supplemented by operational guidelines, to promote the integration of compliance management and business management.

➤ **完善法治合规体系：**强化自身能力建设，为公司经营管理提供坚实法治合规保障。

**Improve the legal compliance system:** The Company has strengthened self-construction capabilities to provide solid legal compliance guarantees for its operations and management.

➤ **完善规章制度建设：**增强制度的针对性和实效性，坚持“外规内化、内规优化”，助力管理措施合规运行。

**Improve the construction of rules and regulations:** The Company has enhanced the pertinence and effectiveness of the system and adopt the principle of "internalizing external regulations and optimizing internal regulations", to help the compliance operation of management measures.

➤ **强化合规指引支撑：**围绕公司经营实际，确保风险防控全面覆盖与重点突出，每月在风控简报中常态化发布合规风险提示。

**Strengthen compliance guidance support:** Focus on the actual operation, the Company has ensured comprehensive coverage and highlighted key risks in risk prevention and control. Compliance risk alerts are published regularly in risk control briefings every month.

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(2) 聚焦业规融合，守住法律风险底线

**Focus on the integration of industry and regulations and uphold the bottom line of legal risks.**

强化底线思维，增强风险防控意识，筑牢三道防线协同管理机制，持续提升重点领域、重大项目及业务合规管理水平，营造合规守信的市场营商环境。

The Company enhances bottom-line thinking, strengthens risk prevention and control awareness, establishes a coordinated management mechanism of three lines of defense, continuously improves the compliance management level in key areas, major projects, and business operations, and creates a market environment of compliance and integrity.

- 
- **发挥合规三道防线的协同效能：**确保业务部门守住“第一道防线”，合规管理牵头部门筑牢“第二道防线”，强化监督部门“第三道防线”。

**Leverage the synergies of the three lines of defense in compliance:** The company ensures that business departments hold the "first line of defense," compliance management leads to build the "second line of defense," and strengthens the supervisory department as the "third line of defense."

- **加强“三重一大”决策合规管理：**落实“三重一大”决策制度，加强重大决策的合法合规性前置审核。

**Enhance the compliance management of decisions on major matters, major personnel appointments and removals, major projects and large amounts of funds:** The Company implements the "major matters, major personnel appointments and removals, major projects and large amounts of funds" decision-making system, and strengthens the pre-approval of the legality and compliance of major decisions.

- **加强重大项目合规管理：**关注重大项目的全周期管理，确保境内境外重大项目合法合规性审核 100%。

**Enhance compliance management of major projects:** The Company focuses on the full-cycle management of major projects, ensuring that 100% of major projects both domestically and overseas undergo legal compliance reviews.

- **着力防范国际业务法律风险：**组织境外法律风险专项排查。

**Focus on preventing international business legal risks:** The Company organizes special inspections of overseas legal risks.

- **提升知识产权合规管理：**开展境内外专利、商标布局，加强知识产权法律合规保护。

**Enhance intellectual property compliance management:** The Company carries out patent and trademark layout at home and abroad, and strengthens legal compliance protection of intellectual property rights.

- **规范合同签约履行管理：**制定采购类、销售类、科技类等常用合同范本，优化合同评审流程，防范合同履约风险，形成闭环管理。

**Standardize contract signing and performance management:** The Company develops commonly used contract templates for procurement, sales, technology, etc., optimizes the contract review process, prevents contract performance risks, and establishes a closed-loop management system.

### (3) 聚焦文化培育，树立全员合规意识

### (3) Focus on cultural cultivation and establish a compliance awareness among all staff

发挥“关键少数”合规引领力，强化全员合规意识，通过多渠道开展法治宣传，培育提升合规文化。

The company leverages the leading role of the "key few" in compliance, strengthens the compliance awareness of all staff, conducts legal publicity through multiple channels, and cultivates and enhances a culture of compliance.

➤ **紧抓“关键少数”带头作用：**强化公司领导法治思维、合规意识，不断强化合规经营理念。

**Grasp the leading role of the "key few":** The Company strengthens the legal thinking and compliance awareness of company leaders, and continuously enhances the concept of compliance operation.

➤ **开展各类专项普法培训：**组织开展专题法律培训 3 场，涉及营销、基建、采购等重点业务领域。

**Conduct various special legal training sessions:** The Company has organized 3 special legal training sessions covering key business areas such as marketing, infrastructure, and procurement.

➤ **加强法治合规专业队伍建设：**法务人员持证率 100%，完善合规联络人机制。

**Strengthen the construction of legal compliance professional teams:** With 100% of legal personnel certified, the Company has improved the compliance liaison mechanism.

## 4. 财税管理

## 4. Financial and Tax Management

公司严格遵守国家及南瑞集团财税各项规章制度及工作流程，坚持强调税务风险管理意识，强化涉税风险事前识别和合规管理，定期开展税务分析，增强财务创效能力，夯实税务管理工作，及时完成各类税费统计、申报与缴纳，积极配合主管税务机关完成各项调查工作，做到“应缴尽缴，应防尽防”，确保依法合规纳税，防范税务风险。公司荣获“2023 年度纳税信用 A 级企业”。自 2018 年度首次获得纳税信用 A 级企业以来，公司已连续七年获此荣誉。

The Company strictly adheres to national regulations and the financial and tax policies of NARI Group. It emphasizes awareness of tax risk management, strengthens the preemptive identification and compliance management of tax risks, and regularly conducts tax analysis to enhance financial efficiency. The Company consolidates its tax management efforts, promptly completes various tax statistics, declarations, and payments, and actively cooperates with tax authorities to facilitate investigations. This ensures compliance with legal tax obligations while effectively mitigating tax risks. The Company was awarded as an "A-level Taxpayer Credit Enterprise for 2023". Since obtaining the A-level taxpayer credit rating for the first time in 2018, the Company has been honored with this recognition for seven consecutive years.

见证荣耀

Witness the Glory



2023年度纳税信用评价信息			
纳税人名称	南京南瑞继保工程技术有限公司	统一社会信用代码 (纳税人识别号)	91320115220969895F
法定代表人	姓名	李先康	姓名
	身份证号	320108****948211	身份证号
办税员	姓名	胡军华	姓名
	身份证号	320108****948211	身份证号
注册地址	南京市江宁区秣陵街道秣陵经济开发区芙蓉大道9号		
经营地址	南京市江宁区秣陵街道秣陵经济开发区芙蓉大道9号		
主管税务机关	国家税务总局南京市江宁区税务局		
纳税信用等级	A		
评价日期	2024年03月		
备注说明	无不良记录		
纳税信用评价记录表			
序号	评价日期	评价结果	评价得分
1	090301	无不良信用记录,评价等级为A	100
2	190302	评价等级为A级	100

## (1) 财务绩效

### Financial performance

公司主要财务关键指标均处于较高水平，近三年累计实现营业收入 406 亿元，利润总额达 31 亿元。面对近几年的竞争压力加剧和复杂经济形势，公司依旧保持高质量稳健发展。

The company's main financial key indicators are at a relatively high level, with a cumulative operating income of 40.6 billion yuan and a total profit of 3.1 billion yuan in the past three years. Despite the increasing competition and complex economic situation in recent years, the Company has maintained high-quality and steady development.

表 公司近三年主要财务指标

Table Main Financial Indicators in the Past Three Years

单位：万元 币种：人民币

Unit: RMB 10,000

Currency: RMB

	2023 年 2023	2022 年 2022	本期比上 年增减(%) Year-on- year change (%)	2021 年 2021
资产总额 Total assets	1,701,287.87	1,392,459.30	22.18%	1410317.48
归属于母公司所有者的净资产 Net assets attributable to owners of the parent	707,234.80	629,092.16	12.42%	524311.94
营业总收入 Gross revenue	1,528,781.79	1,338,607.98	14.21%	1186264.90
利润总额 Total profit	85,590.25	118,604.41	-27.84%	106030.40
纳税总额	39,175.85	45,495.94	-13.89%	27181.20

Total tax paid				
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## (2) 税务

### (2) Tax

1. 深入研究，保障税收优惠应享尽享

1. In-depth research to ensure full enjoyment of tax incentives

实时关注、研究税收相关政策动态，加强税务政策学习，做好税收筹划，合理利用税收优惠政策。做好高新技术企业所得税优惠、研发费用加计扣除留存备查资料、高新设备加计扣除相关工作；根据先进制造业增值税加计抵减政策并及时申报。

The Company stays informed about and researches the latest tax-related policy developments in real time, enhances the study of tax policies, engages in tax planning, and makes reasonable use of tax preferential policies. It carries out the tax incentives for high-tech enterprises, retains the supporting documents for R&D expense additional deduction, and handles the relevant work for additional deduction of high-tech equipment; applies for the value-added tax additional deduction policy for the advanced manufacturing industry and reports in a timely manner.

2. 增强意识，促进税务风险应防尽防

2. Tax risk awareness to prevent tax risks as much as possible

2.1 完成继保工程纳税评估应对，全面梳理近五年各项税种，深入与评估税务机关沟通，自查涉及的多个税种风险。完成税局印花税新政、走出去企业、数据对比风险反馈、主管税务局长现场交流等调研调查工作。

2.1 The Company completes the tax assessment for the relay protection project, comprehensively reviews distinct types of taxes over the past five years, communicates deeply with the tax authorities for assessment, and self-assesses the risks related to multiple tax types. It conducts research and investigation work on the new stamp duty policy of the tax bureau, "go global" enterprises, data comparison risk feedback, and on-site communication with the director of the tax bureau.

2.2 开展违规发票应对工作，财务通过智慧税务系统多环节对异常发票进

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行查验，自行发现并处理多份异常发票，并逐步增设黑名单等拦截规则，加强违规发票惩处力度。

2.2 The Company carries out measures to deal with exception invoices. The finance department uses the intelligent tax system to verify exception invoices at multiple stages, identifies and handles multiple exception invoices on its own, gradually establishes blacklists and interception rules, and strengthens penalties for exception invoices.

## （二）恪守商业诚信

### **(II) Maintain Business Integrity**

南瑞继保注重商业诚信管理和反贪腐建设，致力于按照所有适用法律、法规和最高的诚信标准开展业务，坚决反对任何形式的腐败、贿赂、欺诈等不正当行为，积极倡导和维护阳光、公正、透明、廉洁的市场环境。

NARI-Relays focuses on commercial integrity management and anti-corruption efforts, committed to conducting business in accordance with all applicable laws, regulations, and the highest standards of integrity, resolutely opposing any form of corruption, bribery, fraud, and other unethical behavior, while actively advocating for a sunny, fair, transparent, and clean market environment.

#### 1.商业诚信规范

### **1. Business Integrity Standards**

南瑞继保始终以诚实、公正的方式对待员工、股东、客户、供应商、政府代表及其它利益相关方，通过严格的规章制度推进规范、闭环管理，确保在经营过程中做到合法合规，恪守企业公民职责。

NARI-Relays always treats employees, shareholders, customers, suppliers, government representatives, and other stakeholders with honesty and fairness, promoting standardized and closed-loop management through strict rules and regulations, ensuring legal compliance in its business operations, and adhering to its corporate citizenship responsibilities.

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## 2.反腐倡廉建设

### 2. Anti-corruption and Integrity Building

南瑞继保全面贯彻落实党的二十大和二十届中央纪委二次全会精神，认真落实党风廉政建设和反腐败工作部署，围绕责任落实强化政治监督，聚焦纪律建设作风建设常态化长效化，全周期、一体化推进“三不腐”，为南瑞继保高质量稳健长远发展提供坚强纪律保障。

NARI-Relays continues to comprehensively implement the guiding principles of the 20th National Congress of the CPC and the second plenary session of the 20th CPC Central Commission for Discipline Inspection, diligently carrying out the party conduct and integrity building and anti-corruption work, strengthening political supervision around responsibility implementation, focusing on the normalization and long-term effectiveness of discipline and work style construction, and promoting the "three no-corruption" in a full-cycle, integrated manner, providing a strong disciplinary guarantee for its high-quality, stable, and long-term development.

#### 数读继保

##### Data on NARI-Relays

- 2023 年开展廉洁警示教育近两万人次，公司各级领导干部和重点领域关键岗位人员全覆盖。  
In 2023, nearly 20,000 people participated in integrity warning education, with all levels of the Company leaders and key personnel in key areas fully covered.
- 领导班子成员开展分管领域党风廉政约谈 72 人次  
Members of the leadership team conducted 72 interviews on party conduct and clean governance in their respective areas of responsibility.
- 纪委开展干部任前廉政谈话 49 人次，回复党风廉政意见 85 人次。  
The Discipline Inspection Commission conducted integrity talks with 49 cadres before their appointment and responded to 85 suggestions on party discipline and integrity.
- 未发生腐败事件。  
No corruption incidents occurred.

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## (1) 正风肃纪树新风

### (1) Promote integrity and discipline to foster a new atmosphere

坚持党性党风党纪一起抓，加强重点业务领域监督检查整改力度，始终保持严的基调、严的措施、严的氛围不动摇，将严厉惩治、规范权力、教育引导紧密结合。

NARI-Relays adheres to the simultaneous promotion of Party spirit, Party discipline, and Party rules, strengthens supervision, inspection, and rectification efforts in key business areas, and always maintains a strict tone, strict measures, and a strict atmosphere, tightly integrating severe punishment, power regulation, and education guidance.

- 开展全面依法治企专项调研；  
Conducted special research on comprehensive law-based governance of enterprises;
- 开展招标采购等专项检查 6 次；  
Conducted special inspections such as bidding and procurement 6 times;
- 深入重点项目一线开展监督检查 18 次；  
Conducted 18 supervisory inspections in depth at the front line of key projects;
- 开展违规吃喝问题专项整治工作。  
Carried out special rectification work on violations of eating and drinking regulations.

## (2) 廉洁自律倡清廉

### (2) Advocate integrity and self-discipline

公司积极引导员工廉洁自律，建立集体学习制度，定期对专业制度、流程、规范交流学习，广泛开展廉洁警示教育，督促树立廉洁、勤勉、敬业的工作作风，加强党员干部家风家教建设。同时，加强与地方执纪执法机构沟通联系，建立健全宣教资源共享等机制，营造风清气正的企业氛围。

The Company actively guides employees to maintain integrity and self-discipline, establishes a collective learning system, regularly exchanges and learns professional systems, processes, and norms, widely conducts integrity warning

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education, supervises the establishment of a work style characterized by integrity, diligence, and dedication, and strengthens the construction of the ethical standards of party members and cadres. At the same time, it strengthens communication and coordination with local disciplinary and law enforcement agencies, establishes and improves mechanisms for sharing educational resources, and creates a clean and positive corporate atmosphere.

- 向纪检干部家庭发放廉洁家风建设倡议书 74 份；  
Distributed 74 copies of the proposal for promoting clean and honest family values to the discipline inspection cadres' families.
- 开设新入职员工廉洁从业第一课；  
Offered the first lesson on clean and honest work for new employees;
- 邀请江宁开发区法院开展预防职务犯罪纪法警示教育讲座；  
Invited Jiangning Development Zone Court to conduct a lecture on preventing occupational crimes and legal warnings.
- 党政负责人在基层支部讲授廉政党课；  
Party and government leaders give lectures on clean governance to grassroots party branches.
- 公司党委纪委与两级人民法院开展纪法教育共建交流。  
The company's party committee and discipline inspection commission conducted exchanges on education in discipline and law with two levels of people's courts.

### 3. 畅通举报渠道

#### 3. Whistleblowing Channels

南瑞继保对贪污腐败现象及违反商业道德行为持零容忍态度，建立完善的举报投诉机制，设置专线举报电话，接收公司各级员工及与公司直接或间接发生经济关系的社会各方，关于公司及其人员实际或疑似商业道德相关违规信息，并谨慎处理举报信息，明确投诉举报处理程序、办理时限和办结要求，针对举报内容及时提出分类处置意见。同时，公司明确举报人保护机制，严格保密检举受理、调查各个环节的信息，对举报信息严格保密，并依法保护举报人合法权益，确保举报人不受任何形式的打击报复。

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NARI-Relays has a zero-tolerance attitude towards corruption, bribery, and violations of business ethics. The Company has established a sound reporting and complaint mechanism, with a dedicated hotline for reporting. It accepts reports from employees at all levels and from various social parties who have direct or indirect economic relationships with the Company, regarding actual or suspected violations of business ethics by the Company or its personnel. Reports are handled carefully, with clear procedures, processing timelines, and resolution requirements. Prompt classification and disposal recommendations are made for reported content. At the same time, the Company has established a clear whistleblower protection mechanism, strictly maintaining the confidentiality of information in the reporting, acceptance, and investigation processes, keeping the reported information confidential, and legally protecting the legitimate rights and interests of whistleblowers to ensure that they are not subjected to any form of retaliation.

南瑞继保反腐败举报渠道

**NARI-Relays Integrity Whistleblowing Channel**

举报电话：025-87178710

Tel: 025-87178710

## 二、奋勇争先·做绿色画卷的绘就者

### II. Pioneering Progress · To Be a Creator of Green Landscape

南瑞继保始终坚持绿色发展道路，以公司绿色转型为引领，以能源绿色降碳为基础，严格落实企业能源节约与生态环境保护的主体责任，实现对自身环境有效管控的同时，在节能降碳、清洁能源和低碳技术研发等方面持续投入和创新，通过产品、技术和服务为绿色高质量发展道路做出卓越贡献，塑造一个绿色、低碳、可持续的光明未来。本篇章从应对气候变化、健全环境管理、绿色低碳运营三维度入手，在风险机遇分析、气候行动部署、节约能源资源、加强污染防治、践行绿色生产等方面响应联合国可持续发展目标 SDGs7、12、13、15 项的要求。

NARI-Relays has always adhered to the path of green development, guided by the company's green transition and grounded in energy carbon reduction. It strictly implements the primary responsibility for energy conservation and ecological environment protection, achieving effective environmental control while continuously investing in and innovating in energy saving and emission reduction, clean energy, and low-carbon technology research and development. Through its products, technology, and services, it makes outstanding contributions to a green, high-quality development path, shaping a bright future that is green, low-carbon, and sustainable. This chapter addresses three dimensions: addressing climate change, enhancing environmental management, and promoting green and low-carbon operations. It aligns with the United Nations Sustainable Development Goals (SDGs) 7, 12, 13, and 15, focusing on risk and opportunity analysis, climate action deployment, energy and resource conservation, pollution prevention and control, and green production practices.

#### 南瑞继保与 SDGs

#### NARI-Relays and SDGs



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## （一）应对气候变化

### **(I) Addressing Climate Change**

应对气候变化是全人类的共同事业，南瑞继保深刻理解气候变化带来风险和机遇，积极响应国务院“扎实做好碳达峰、碳中和各项工作”的方针和联合国可持续发展目标，将应对气候变化作为实现发展方式转变的重大机遇，推进气候策略持续落地，全面提升公司应对气候变化的能力。

Addressing climate change is a common cause for all humanity. NARI-Relays deeply understands the risks and opportunities brought by climate change, actively responding to the State Council's policy of "taking solid steps toward the goals of achieving peak carbon dioxide emissions and carbon neutrality" as well as the United Nations Sustainable Development Goals. NARI-Relays sees addressing climate change as a significant opportunity to transform its development approach, promote the continuous implementation of climate strategies, and comprehensively enhance its capacity to address climate change.

#### 1. 风险机遇分析

##### **1. Risk and Opportunity Analysis**

南瑞继保参考国际可持续准则理事会（ISSB）发布的国际财务报告可持续披露准则的相关建议，将气候风险与机遇与公司风险管理体系深度耦合，主动识别与分析自身运营及价值链上、下游气候风险与机遇，积极制定气候变化风险应对计划并开展行动，着力提升气候风险应对能力。

NARI-Relays references the recommendations of the International Sustainability Standards Board (ISSB) regarding the International Financial Reporting Sustainability Disclosure Standards. The Company integrates climate risks and opportunities into its risk management system, proactively identifying and analyzing climate risks and opportunities in its operations and value chain. It formulates climate risk response plans and takes actions to enhance its climate risk resilience.

##### （1）气候风险识别

##### **(1) Climate risk identification**

南瑞继保高度重视气候风险管理，持续完善气候变化风险管理框架和风险

应对机制，识别相关实体风险、转型风险，并制定应对计划和措施，全面降低气候风险带来的影响。

NARI-Relays attaches significant importance to climate risk management, continuously improving its climate change risk management framework and risk response mechanisms. The Company identifies relevant entity risks and transition risks, and formulates response plans and measures to comprehensively reduce the impact of climate risks.

### 转型风险

#### Transition risk

##### ➤ 政策及法律风险

##### **Policy and Legal Risks**

随着国家碳减排相关政策以及国际碳排放要求的日趋严格，南瑞继保及利益相关方将面临监管及投资机构对企业更加严格的排放量报告义务及合规要求，从而可能带来项目进展受阻、高额罚款及合规成本过高等潜在风险。

With the increasingly strict national carbon reduction policies and international carbon emission requirements, NARI-Relays and its stakeholders will face stricter emission reporting obligations and compliance requirements from regulatory and investment institutions. This may lead to potential risks such as project delays, high fines, and excessive compliance costs.

气候变化有关的政策及法律风险由此给公司带来的潜在财务影响有：

**The potential financial impacts that climate change-related policy and legal risks may bring to NARI-Relays include:**

**合规成本增加：**环境保护法律法规日趋严格，公司及利益相关方也可能出现由于未符合气候相关政策或法律被依法追究责任、采取监管措施。

**Increased compliance costs:** Environmental protection laws and regulations are becoming increasingly stringent. NARI-Relays and its stakeholders may face legal liabilities or regulatory actions for non-compliance with climate-related policies or laws.

**运营成本增加：**监管机构及投资机构对企业碳排放量、减排措施、量化目

标及表现的披露要求更严格，信息披露相关运营成本增加。

**Increased operating costs:** Regulatory and investment institutions have stricter disclosure requirements regarding carbon emissions, emission reduction measures, quantitative targets, and performance of enterprises, leading to increased operational costs related to information disclosure.

**应对措施:**

**Countermeasures:**

严格遵守国家政策，及时了解和遵守国内外相关监管机构发布的法律法规，定期识别适用的碳排放相关政策；

Strictly adhere to national policies, timely understand and comply with laws and regulations issued by domestic and foreign regulatory agencies, and regularly identify applicable carbon emission-related policies;

积极主动推动企业气候变化规划工作，并按照产品生命周期，探索低碳管理新模式，强化自身内部碳排查管理，增强建设生产过程中的碳排放核算体系。

Actively promote corporate climate change mitigation plans and explore new low-carbon management models according to the product lifecycle. Strengthen internal carbon emission management and enhance the carbon accounting system in the production process.

➤ **技术风险**

**Technical Risk**

工业污染物排放标准、大气污染物综合排放标准等要求公司电气设备制造业进行技术升级，使用绿色环保的工艺技术和设备以节约能源、减少污染物排放。

NARI-Relays is required to upgrade the technology of its electrical equipment manufacturing industry to meet industrial emission standards and comprehensive atmospheric pollutant emission standards. The Company must use green and environmentally friendly process technologies and equipment to save energy and reduce pollutant emissions.

气候变化有关的技术风险由此给公司带来的潜在财务影响有：

**The potential financial impacts that climate change-related technological risks may bring to NARI-Relays include:**

**运营成本增加：**公司需要及时跟进采用新能源、低碳材料、低能耗设备和更先进的节能技术工艺，将导致整体经营成本增加。

**Increased operating costs:** NARI-Relays needs to adopt new energy, low-carbon materials, low-energy consumption equipment, and more advanced energy-saving technology processes in a timely manner, which will lead to an overall increase in operating costs.

**研发成本增加：**为满足市场需求，提升公司技术服务水平，扩大绿色低碳产品供给，需投入大量资金推动技术研发。

**Increased research and development costs:** To meet market demand, improve its technical service level, and expand the supply of green and low-carbon products, NARI-Relays will need to invest a significant amount of funds in promoting technological research and development.

**应对措施：**

**Countermeasures:**

引入高效节能的技术手段或生产设备；

Introduce efficient and energy-saving technological methods or production equipment.

提升设备使用效率，提高产品生产效率；

Improve equipment utilization efficiency and increase product production efficiency.

深刻把握能源电力技术变革趋势，深入实施创新驱动发展战略，持续加强战略性、前瞻性和基础性科研布局，不断突破核心技术研发，为服务电网安全和能源转型赋能加力。

Deeply understand the trends in energy and power technology transformation, thoroughly implement an innovation-driven development strategy, continuously strengthen the strategic, forward-looking, and fundamental scientific research

framework, and consistently advance core technology research and development to empower and enhance the safety of the power grid and energy transformation.

➤ **市场风险**

**Market Risk**

能源电力行业的客户对减缓和适应气候变化的产品和服务的需求增加，若公司无法提供相应的产品和服务，将会面临业务需求降低和客户流失的风险；而气候变化影响、环保要求严格、技术升级导致电气设备原材料成本、生产成本增加，进而影响产品价格，可能导致客户对电气设备的需求减少。

Customers in the energy and power industry have an increasing demand for products and services that help mitigate and adapt to climate change. If NARI-Relays fails to provide corresponding products and services, it may face risks of reduced business demand and customer loss. The impacts of climate change, strict environmental requirements, and technological upgrades leading to increased raw material and production costs for electrical equipment may affect product prices, potentially resulting in decreased demand for electrical equipment from customers.

气候变化有关的市场风险由此给公司带来的潜在财务影响有：

**The potential financial impacts that climate change-related market risks may bring to NARI-Relays include:**

**管理成本增加：**为满足客户对减缓和适应气候变化的产品和服务的需求增加，公司需提升产品研发及服务管理投入，储备相关产能，做好调度预案，由此导致公司管理成本增加。

**Increased management costs:** To meet the growing demand from customers for products and services that help mitigate and adapt to climate change, the company needs to increase investment in product research and development, service management, capacity building, and contingency planning, leading to higher management costs.

**运营成本增加：**能源、水、设备等资源的价格会随着气候变化影响而变高，随之影响生产原材料的采购成本以及供应链运输成本增加。

**Increased operating costs:** Prices of resources such as energy, water, and

equipment are likely to rise due to climate change impacts, resulting in higher procurement costs for production materials and increased supply chain transportation costs.

**营业收入缩减：**产业链上游的成本增加，提供低排放产品和服务的竞争者威胁进而导致市场份额降低，以及客户对公司电力设备产品及相关服务的需求量下降等风险，导致营收缩减。

**Decreased operating income:** Risks such as rising costs in the upstream of the industry chain, competition from providers of low-emission products and services leading to reduced market share, and declining demand for the company's power equipment products and related services from customers may result in reduced revenue.

**应对措施：**

**Countermeasures:**

密切跟踪并调研客户对于绿色产品及服务的需求变化，积极分析价格波动趋势，及时调整产业布局；

Closely monitor and research the changing demands of customers for green products and services, actively analyze price fluctuation trends, and adjust the industrial layout in a timely manner.

不断加强产业顶层设计，发力产业高端化升级，推动新兴产业培育发展；

Continuously strengthen the top-level design of industries, focus on upgrading high-end industries, and promote the cultivation and development of emerging industries.

制定绿色采购方案，与合作伙伴就低碳供应链运输达成共识，降低采购成本；

Develop green procurement schemes, reach consensus with partners on low-carbon supply chain transportation, and reduce procurement costs.

持续优化资源整合和运营管控，精益生产管理，为统筹协调满足发展需求提供保障。

Continuously optimize resource integration and operational control, implement

lean production management, and provide support for overall coordination to meet development needs.

➤ **声誉风险**

**Reputation Risk**

利益相关方期望公司在应对气候变化方面有预期达成的量化目标、较为系统的管理体系及措施，并提升信息披露透明度，如果公司没有应对气候变化的相关方案、无法回应利益相关方期待、环境及气候表现不佳，将会影响公司的声誉。

Stakeholders expect the Company to establish quantifiable targets, a systematic management framework, and measures to address climate change while enhancing the transparency of information disclosure. If NARI-Relays lacks relevant climate change initiatives, fails to meet stakeholder expectations, or exhibits poor environmental and climate performance, it will adversely impact the company's reputation.

气候变化有关的声誉风险由此给公司带来的潜在财务影响有：

**The potential financial impacts that climate change-related reputation risks may bring to NARI-Relays include:**

**管理成本增加：** 环保讨论带来的声誉风险可能会增加企业公关及舆论管理成本。

**Increased management costs:** The reputation risk arising from environmental discussions may lead to higher costs for public relations and public opinion management.

**融资成本增加：** 没有及时回应利益相关方期待的环境信息披露将使得企业形象受损，可能面临资本市场 ESG 相关指数评级降低，进而影响融资能力。

**Increased financing costs:** Failure to timely respond to stakeholders' expectations for environmental information disclosure could damage the company's image, potentially resulting in a downgrade of ESG-related index ratings in the capital market, thereby affecting its financing capabilities.

**应对措施：**

**Countermeasures:**

夯实环保管理基础，聚焦加强气候变化监测预警和风险管理，以实现对自身气候风险进行有效管理；

Strengthen the foundation of environmental management by focusing on enhancing climate change monitoring, early warning systems, and risk management to effectively manage climate risks.

通过利益相关方调研、公众号信息披露、ESG 报告发布等渠道与利益相关方沟通，及时、准确、全面地展现自身在气候变化相关风险方面的研判及举措。

Communicate with stakeholders through channels such as stakeholder surveys, public information disclosure, and the publication of ESG reports to timely, accurately, and comprehensively showcase the company's assessment and actions regarding climate change-related risks.

## 实体风险

### Physical Risk

#### ➤ 极端天气风险

##### Extreme Weather Risk

台风、飓风、洪水、寒潮等极端天气对电网、电厂、轨道交通等行业的安全稳定带来巨大威胁，进而导致客户对公司产品和服务的质量要求提高；同时，台风、洪水、寒潮等自然灾害将会威胁员工生命健康，影响工程施工、项目运营。

Extreme weather events such as typhoons, hurricanes, floods, and cold waves pose significant threats to the safety and stability of industries such as power grids, power plants, and rail transportation, resulting in heightened quality demands for company products and equipment from customers. Additionally, natural disasters like typhoons, floods, and cold waves endanger employee health and safety, impacting engineering construction and project operations.

气候变化有关的极端天气风险由此给公司带来的潜在财务影响有：

**The potential financial impacts that extreme weather risks related to climate**

**change may bring to NARI-Relays include:**

**研发成本增加：** 公司需增加成本投入以增强产品和设备抵御力。

**Increased R&D costs:** The Company need to invest more to enhance the resilience of its products and equipment.

**管理成本增加：** 保障员工提供安全的作业环境及工程项目延期的风险导致公司管理成本上升。

**Increased management costs:** Ensuring a safe working environment for employees and the risks of project delays contribute to rising management costs.

**应对措施：**

**Countermeasures:**

建立健全应对极端天气的应急体系建设，完善相应的应急预案，定期开展应急演练，加强应急物资储备，增强防御能力；

Establish a comprehensive emergency response system to address extreme weather, refine emergency plans, conduct regular drills, bolster reserves of emergency supplies, and enhance defensive capabilities.

为相关工作人员提供劳保用品，定期开展专项检查，力争为员工提供安全的工作环境；

Provide personal protective equipments for relevant staff, conduct regular special inspections, and strive to ensure a safe working environment for employees.

在项目初期即开展极端天气影响研判，将因其造成的项目成本增加考虑在内。

Conduct impact assessments of extreme weather at the project's outset and factor in the potential increase in project costs.

➤ **慢性气候风险**

**Chronic climate risks**

全球气候变暖带来的极端高温环境会影响温度敏感的生产设备运行，而且也可能给员工健康带来慢性损害；气候变化导致的海平面上升，可能增加沿海地区的设施损害风险并提高设备维护成本。

The extreme high temperatures resulting from global warming can adversely

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affect the operation of temperature-sensitive production equipment and may also pose chronic health risks to employees. Additionally, climate change-induced sea level rise could heighten the risk of facility damage in coastal areas and increase maintenance costs.

气候变化有关的慢性气候风险由此给公司带来的潜在财务影响有：

**The potential financial impacts that chronic climate risks related to climate change may bring to NARI-Relays include:**

**运维成本增加：**外部能源供应稳定性下降，员工工作环境也存在安全隐患，而且公司需耗用更多水和电冷却温度敏感的设备以维持设备正常运转，造成额外运营开支。

**Increased operation and maintenance costs:** Diminished stability of external energy supplies and safety hazards in employees' working environments necessitate greater consumption of water and electricity to cool temperature-sensitive equipment, leading to higher operating expenses.

**应对措施：**

**Countermeasures:**

建设车间环境监测系统，对车间温度、湿度进行实时监控，使工作人员能够提前应对极端高温风险；

Implement a workshop environmental monitoring system to track real-time temperature and humidity, enabling proactive measures against extreme heat risks.

加强设备管理，尽可能淘汰落后设备，提高“反脆弱”能力；

Enhance equipment management by phasing out outdated equipment as much as possible to improve resilience.

优化能源供应渠道，提升可再生能源使用比例，提升能源使用效率；

Optimize energy supply channels, increase the proportion of renewable energy use, and enhance energy efficiency.

提升水循环使用的比例，避免极端高温对供水和耗水设备产生的影响；

Increase water recycling rate to mitigate the impacts of extreme heat on water supply and consumption.

增加员工健康安全的投入，多措并举强化高温天气下劳动者权益保障。

Invest in employee health and safety, employing multiple strategies to reinforce the protection of workers' rights during high-temperature conditions.

## (2) 主动把握机遇

### (2) Proactive opportunity identification

南瑞继保积极识别各类发展机遇，持续加强自身环保管理，积极发展旨在提升清洁能源和综合能源利用等绿色产品和技术，深化电能替代，促进清洁能源大规模并网和消纳，构建绿色供应链，开创绿色低碳产业新篇章。

NARI-Relays actively identifies various development opportunities, continuously strengthens its environmental management, and develops green products and technologies aimed at enhancing clean energy and comprehensive energy utilization. The Company deepens electricity substitution, promotes large-scale grid connection and integration of clean energy, builds a green supply chain, and opens a new chapter in green and low-carbon industries.

#### ➤ 资源使用效率

##### **Resource utilization efficiency**

**绿色生产：**采用绿色设计和绿色包装，进行生产流程及技术方面的优化，提高生产产能及效率，采用更高效的运输方式，降低成本。

**Green production:** NARI-Relays adopts green design and green packaging, optimizes production processes and technologies, improves production capacity and efficiency, and uses more efficient transportation methods to reduce costs.

**水资源管理：**强化节水管理，建立全体员工人人参与的节水型企业管理体系，实现水资源的可持续利用。

**Water resources management:** NARI-Relays has strengthened water conservation management, and established a water-saving enterprise management system in which all employees participate, to achieve sustainable utilization of water resources.

#### ➤ 能源使用效率

### **Energy Efficiency**

**清洁能源：**在生产运营活动中增加清洁能源的使用，减少碳排放的同时，降低能源采购成本。

**Clean energy:** NARI-Relays increases the use of clean energy in production and operation activities to reduce carbon emissions and lower energy procurement costs.

**节能技术与设备应用：**通过采用先进生产工艺，选用高效、低能耗设备提高能源使用效率，实现生产经营节能降碳。

**Energy-saving technology and equipment application:** By adopting advanced production processes and selecting high-efficiency, low-energy consumption equipment, NARI-Relays has improved energy utilization efficiency, and achieved energy-saving and carbon reduction in production operations.

**能源管理：**加强能源管理体系建设，构建智慧园区综合能效管理平台，利用数字化、智能化技术管控能源消耗和碳排放，有效提高能效管理，降低人力成本投入。

**Energy management:** NARI-Relays has strengthened the development of energy management system, built a comprehensive energy efficiency management platform for smart parks, and utilized digital and intelligent technologies to control energy consumption and carbon emissions, thereby effectively improving energy efficiency management and reducing labor cost input.

### ➤ **产品与服务**

#### **Products and Services**

**市场偏好机遇：**低碳经济转型的背景下，公司在清洁能源消纳、节能环保产品等方面的能力将更加受到消费者偏好，公司具有核心技术与自主知识产权的系列产品能够享受先发优势，带动业务快速增长。

**Market Preference Opportunity:** Against the backdrop of the transition to a low-carbon economy, the company's capabilities in clean energy integration, energy-saving and environmental protection products will be more favored by consumers. The series of products with core technology and independent intellectual property rights can enjoy first-mover advantages, driving rapid business

growth.

➤ **新市场**

**New Market**

**“双碳”目标机遇：**在“双碳”目标的推动下，新型电力系统建设加快推进，城市、企业在新型电力系统“源网荷储”关键环节和典型应用场景的需求激增，公司可以通过延伸产业链条，提高市场竞争力。

Opportunities of the "carbon peaking and carbon neutrality" goals: With the promotion of the "carbon peaking and carbon neutrality" goals, the development of new power systems is accelerating. The demand for key links and typical application scenarios of the new power system "source-grid-load-storage" in cities and enterprises is increasing rapidly. Companies can enhance their market competitiveness by extending the industrial chain.

**“新质生产力”机遇：**以科技创新推动产业创新，探索智能、融合、高效、绿色的发展路径，围绕高水平高能级的产业结构体系，拓展业务范围，构筑竞争新优势。

**The opportunity of "new quality productive forces":** NARI-Relays promotes industrial innovation through technological innovation, exploring intelligent, integrated, efficient, and green development paths, expanding its business scope around a high-level and high-energy industrial structure system, and building new competitive advantages.

➤ **适应力**

**Adaptability**

**外部：**深化校企合作、强企协同、政企合作，持续参与风电、光伏、水电等清洁能源项目，加强能源科技创新，积极开发绿色低碳产品和解决方案，帮助客户和行业提高气候变化适应力。

**External:** NARI-Relays deepens cooperation between schools and enterprises,

strengthens collaboration among enterprises, and cooperates with the government. It actively participates in clean energy projects such as wind power, photovoltaics, and hydropower, enhances energy technology innovation, actively develops green low-carbon products and solutions, and helps customers and industries enhance climate change resilience.

**内部：**将绿色发展理念融入生产经营全过程，紧紧围绕资源能源利用效率和清洁生产水平提升，打造用地集约化、原料无害化、生产洁净化、废物资源化、能源低碳化的绿色工厂，提升公司的气候变化适应力。

**Internal:** NARI-Relays integrates the concept of green development into the entire production and operation process, focusing on improving resource and energy utilization efficiency and clean production levels. The Company builds a green factory with intensive land use, harmless raw materials, clean production, waste resource utilization, and low-carbon energy, enhancing its climate change adaptation capacity.

## 2.气候行动部署

### 2. Climate Action

南瑞继保严格遵守《中华人民共和国环境保护法》、《中华人民共和国水污染防治法》、《中华人民共和国固体废物污染防治法》等法律法规，发布了“经济与自然和谐，持续发展”的环境方针，加强源头控制，严格控制污染排放，合理有效利用资源，打造绿色工厂，推进新能源利用，倡导低碳环保，降低生产经营活动对环境的影响。

NARI-Relays strictly complies with laws and regulations such as the Environmental Protection Law of the People's Republic of China, the Water Pollution Prevention and Control Law of the People's Republic of China, and the Solid Waste Pollution Prevention and Control Law of the People's Republic of China. The Company has issued an environmental policy of "harmony between economy and nature, sustainable development", strengthening source control, strictly controlling pollution emissions, reasonably and effectively utilizing resources, building green factories, promoting the use of new energy, advocating for low-carbon environmental

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protection, and reducing the impact of production and operation activities on the environment.

➤ **聚焦自身降碳**

**Focus on Reducing Carbon Emissions**

制定“碳达峰、碳中和”行动方案，编制《温室气体管理作业指导书》，推行温室气体核查和产品碳排放国际技术规范、对公司生产运营过程和产品全生命周期内的温室气体排放量进行核查，以减少生产经营过程中的碳排放。

NARI Relays has developed an action plan for "carbon peaking and carbon neutrality", prepared a "Greenhouse Gas Management Guideline", and promoted greenhouse gas verification and product carbon emissions international technical standards. The Company verifies greenhouse gas emissions throughout its production and operation processes and product lifecycle to reduce carbon emissions in these processes.

➤ **强化技术赋能**

**Enhancing Technological Empowerment**

紧抓社会范围内共促“双碳”带来的市场机遇，以先进技术、可靠装备、优质服务助力清洁发展，加快新型电力系统建设，服务新能源发展。

NARI-Relays seizes the market opportunities brought by the "carbon peak and carbon neutrality" goals within society, promoting clean development with advanced technology, reliable equipment, and quality services. The Company accelerates the development of new power systems and supports the development of new energy.

➤ **提供科研智慧**

**Providing Research Insights**

整合科技创新资源，优化科技创新体系，培养科技创新人才，以科技创新催生新产业、新模式、新动能，围绕新能源产业推动公司长远稳健发展。

NARI-Relays integrates technological innovation resources, optimizes its technological innovation system, and cultivates technological innovation talents. The Company uses technological innovation to drive new industries, new models, and new momentum, promoting its long-term and steady development around the new

energy industry.

### 南瑞继保“碳达峰、碳中和”行动方案

#### **NARI-Relays' Action Plan for Carbon Peaking and Carbon Neutrality**

- 推进构网控制技术全面工程应用，为新能源电力系统提供稳定运行的坚强保障  
Promote the comprehensive engineering application of grid-forming control technology to provide a strong guarantee for the stable operation of the new energy power system.
- 打造源网荷储一体化解决方案，推动能源体系绿色低碳转型发展  
Build integrated source-grid-load-storage solutions to promote the green and low-carbon transition and development of the energy system.
- 以能源自给可控为核心，提升能源产业链供应链韧性和安全水平  
Enhance the resilience and security of the energy industrial and supply chains, with self-sufficiency and controllability as the core.
- 打造智能化绿色工厂，利用建筑屋顶等建设分布式光伏发电系统和太阳能热水系统，南瑞继保智能化电气装备产业园可再生能源利用率超 20%。  
Establish an intelligent green factory by utilizing distributed photovoltaic power generation systems and solar thermal systems on building roofs and other structures; the renewable energy utilization rate of NARI-Relays' intelligent electrical equipment industrial park exceeds 20%.
- 构建智能化能源管理平台，实现能源输入和输出全流程实时监控，利用能管平台比较、跟踪、分析厂区能耗情况。  
Develop an intelligent energy management platform to achieve real-time monitoring of energy input and output throughout the entire process, and utilize the platform to compare, track, and analyze energy consumption in the factory area.

案例：“基于构网型技术的纯新能源电力系统构建及示范应用”额济纳项目成

## 功投运

### **Case: Successful Operation of the Ejina Project Based on Grid-Forming Technology for the Construction and Demonstration Application of a Pure New Energy Power System**

2023年6月，国内首个具备独立运行能力、低短路容量、泛电压等级、广覆盖范围的额济纳“源网荷储”一体化示范项目成功投运。南瑞继保针对该项目提出以构网型技术为核心的源网荷储一体化解决方案，提供了包括构网型储能、电网稳定控制、协调控制和能量管理系统在内的一二次成套设备。项目创下多个国内第一，成功开展国内首次广域大网架极高比例新能源电力系统全域离网中长期试验和首例纯新能源电力系统离网状态下故障穿越试验，实现100%电力电子设备支撑下的全域负荷100%绿电保供。2023年11月，基于构网型技术的纯新能源电力系统构建及示范应用项目通过五位院士在内的科技成果鉴定，整体技术国际领先。

In June 2023, the first domestic integrated "source-grid-load-storage" demonstration project in Ejina, featuring independent operation capability, low short-circuit capacity, broad voltage levels, and extensive coverage, was successfully put into operation. NARI-Relays proposed an integrated source-grid-load-storage solution centered on grid-forming technology for this project, providing a complete set of primary and secondary equipment that includes grid-forming energy storage, grid stability control, coordinated control, and an energy management system. The project has set multiple domestic records, successfully conducting China's first large-scale long-term test of a high-proportion new energy power system in a wide-area grid, as well as the first fault crossing test of a pure new energy power system in an off-grid state. This achievement ensured a 100% green power supply for the entire load, supported entirely by power electronic equipment. In November 2023, the construction and demonstration application project of a pure renewable energy power system based on grid-forming technology was appraised by five academicians, confirming that the overall technology is internationally advanced.



**案例：首套基于超级电容的静止同步调相机（SSC）吉林八面项目成功投运**  
**Case Study: The First Set of Static Synchronous Compensator (SSC) Based on Supercapacitors in the Jilin Bamian Project Successfully Put into Operation**

2023年12月，世界首套基于超级电容的静止同步调相机（SSC）在吉林华能八面风电场220kV升压站顺利并网。按照满负荷运行，八面风电项目可以生产10亿度电，有效支撑本地清洁能源的稳定送出，促进了清洁能源发电快速发展。南瑞继保提供静止同步调相机成套装置，核心技术指标达到或超过传统的分布式调相机水平，有效提高了新能源送端弱电网的稳定性和可靠性，实现了从机械旋转设备到电力电子设备的革命性的跨越。SSC具有高惯量、高阻尼、强支撑、低损耗、易维护以及参数灵活等综合优势，设备具备3倍额定电流过载能力，可瞬时发出有功和无功功率响应系统频率、电压变化，为应对新型电力系统面临的问题提供了创新性解决方案，对提升新能源场站主动支撑能力、提高新能源电量消纳水平等具有重要意义。

In December 2023, the world's first Static Synchronous Compensator (SSC) based on supercapacitors was successfully connected to the grid at the 220kV substation of the Jilin Huaneng Bamian Wind Farm. With full capacity operation, the Bamian Wind Power Project can generate 1 billion kilowatt-hours of electricity, effectively supporting the stable transmission of local clean energy and promoting the rapid development of clean energy generation. NARI-Relays provided a complete set of SSCs, with core technical indicators meeting or exceeding those of traditional distributed compensators. This advancement significantly enhances the stability and reliability of weak power grids at the new energy transmission end, marking a revolutionary transition from mechanical rotating equipment to power electronic devices. The SSC boasts several comprehensive advantages, including

high inertia, high damping, strong support, low loss, easy maintenance, and flexible parameters. The equipment can handle a threefold rated current overload capacity and can instantly deliver active and reactive power in response to changes in system frequency and voltage. This innovation offers effective solutions to the challenges faced by new power systems, playing a crucial role in enhancing the active support capabilities of new energy stations and improving the overall consumption level of renewable energy.



## (二) 健全环境管理

### (II) Enhance Environmental Management

南瑞继保坚决遵循《中华人民共和国环境保护法》、《中华人民共和国节约能源法》以及《江苏省节约能源条例》等国家与地方环境保护的法律法规，将环保理念深植于企业发展蓝图中，作为战略决策的关键考量。公司依托 ISO 14001 环境管理体系、ISO45001 职业健康管理体系，建立全套完整的环境管理制度，包括《环境及职业健康安全方针管理程序》、《环境因素、危险源评价控制程序》、《应急准备和响应控制程序》等，秉持“全过程、集约化、法制化、规范化”的环保工作铁律，矢志追求“零事故、零伤害、零污染”的环保至高境界，致力于构建一家与环境和谐共生的企业。

NARI-Relays firmly adheres to the Environmental Protection Law of the People's Republic of China, the Energy Conservation Law of the People's Republic of China, the Energy Conservation Regulations of Jiangsu Province, and other national and local laws and regulations related to environmental protection. The concept of environmental protection is deeply integrated into the company's development

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blueprint and serves as a key consideration in strategic decision-making. The Company utilizes the ISO 14001 environmental management system and the ISO 45001 occupational health management system to establish a comprehensive environmental management framework. This includes Procedures for Environmental and Occupational Health and Safety Policy Management, Environmental Factors and Hazard Sources Evaluation and Control, and Procedures for Emergency Preparedness and Response Control. By adhering to the principles of "whole process, intensification, legalization, and standardization" in its environmental protection efforts, the Company is committed to achieving the highest standards of environmental protection, striving for "zero accidents, zero injuries, and zero pollution", and dedicating itself to building an enterprise that coexists harmoniously with the environment.

#### 环境管理目标

##### **Environmental Management Goals**

“三废”排放达标率 100%，不发生环境污染事故

The discharge standard-meeting rate of "three wastes" is 100%, and no environmental pollution accidents occur.

减少锡渣的危废排放 30%

Reduce hazardous waste generation from tin slag by 30%.

#### 数读继保

##### **Data on NARI-Relays**

公司层面修编生态环保制度规范 4 项

Revised four ecological and environmental protection regulations at the company level.

发布年度重要环境因素一览表共 15 项

Released a list of 15 key environmental factors for the year.

开展生态环境保护隐患排查整改专项工作，发现并整改问题 3 项

Carried out special inspections and rectification of hidden dangers in ecological environment protection, and discovered and rectified 3 problems.

全年未发生环保违法违规事件与处罚

No environmental violations or penalties occurred throughout the year.

减少锡渣的排放 35%

Reduced tin slag generation by 35%.

- **环境风险识别：**开展环境因素年度集中识别和评价，针对生产、办公、服务等全过程环境影响进行辨识、分析和评价，形成《重要环境因素一览表》，制定控制措施，强化生产经营过程中的环境风险防控。

**Environmental Risk Identification:** NARI-Relays has conducted annual centralized identification and evaluation of environmental factors, identified, analyzed, and evaluated environmental impacts throughout production, office, and service processes, formulated a list of important environmental factors, developed control measures, and strengthened environmental risk prevention and control during production and operation.

- **环保隐患排查：**定期开展废水、废气、噪声等环境因子的监测,排查环保设施系统设备隐患,建立危废管理台账和环保设备设施台账,定时盘点更新,加强隐患排查治理。

**Environmental Hazard Inspection:** NARI-Relays has regularly monitored environmental factors such as wastewater, waste gas, and noise, inspected potential hazards in environmental protection facilities and equipment, established a hazardous waste management ledger and an environmental protection equipment ledger, conducted regular inventory updates, and enhanced the inspection and remediation of hazards.

- **环保应急建设：**制定和修订突发环境事件应急预案,配备应急物资及装备,开展突发事件应急知识宣传和环境事件应急演练,提升环境突发事故应急响应和处置能力。

**Environmental Protection Emergency Preparedness:** NARI-Relays has formulated and revised emergency plans for sudden environmental incidents, equipped necessary emergency materials and equipment, promoted emergency

knowledge, and conducted environmental emergency drills to improve the response and handling capabilities for environmental emergencies.

- **环境绩效考核:** 实行环境保护目标责任制,制定环境保护管理目标和指标,实施环境保护控制,开展环境保护监督、检查和考核,环保绩效的显著改进将为单位和个人带来奖励。

**Environmental Performance Assessment:** NARI-Relays has implemented an environmental protection target responsibility system by setting management goals and indicators for environmental protection, and conducted supervision, inspection, and assessment of environmental controls. Significant improvements in environmental performance will result in rewards for units and individuals.

- **项目建设环境管理:** 在项目立项过程中对项目布局、选址、工艺等环节的环境风险进行审核,在项目建设过程中确保防治污染的设施与主体工程同时设计、同时施工、同时投产使用,持续加强项目建设环境管理。

**Project Environmental Management:** NARI-Relays has conducted an audit of environmental risks in project layout, site selection, technology, and other aspects during the project approval process. It ensures that pollution prevention facilities are designed, constructed, and put into operation simultaneously with the main project during the project construction process, and continuously strengthens project environmental management.

- 公司获得 GB/T 24001-2016/ISO 14001:2015 环境管理体系认证,这一权威认证全面覆盖了我们公司在电力及工业自动化控制设备、电力电子、智能一次设备等多个领域的技术研究、产品开发、设备制造和技术服务。同时,认证体系也深入涉及电力及工业自动化系统的技术研究、产品开发和技术服务等各项核心业务,确保能够有效控制或施加影响的环境因素。

The Company has obtained the GB/T 24001-2016/ISO 14001:2015 environmental management system certification, which comprehensively

covers our technical research, product development, equipment manufacturing, and technical services across various fields, including power and industrial automation control equipment, power electronics, and intelligent primary equipment. Additionally, the certification system also encompasses in-depth technical research, product development, and services related to electricity and industrial automation systems, ensuring effective control or influence over environmental factors.

### **(三) 绿色低碳运营**

#### **(III) Promote Green and Low-carbon Operation**

南瑞继保严格遵守《中华人民共和国大气污染防治法》《中华人民共和国水污染防治法》《中华人民共和国固体废物污染防治法》，合理利用能源资源，打造绿色生产体系，推进绿色办公，倡导低碳环保行动，降低生产经营活动对环境的影响。

NARI-Relays strictly complies with laws and regulations such as the Air Pollution Prevention and Control Law of the People's Republic of China, the Water Pollution Prevention and Control Law of the People's Republic of China, and the Solid Waste Pollution Prevention and Control Law of the People's Republic of China. The Company rationally utilizes energy resources to create a green production system, promotes green office practices, and advocates for low-carbon environmental protection actions, to reduce the environmental impact of its production and operational activities.

#### **1. 节约能源资源**

##### **1. Conserve Energy Resources**

南瑞继保致力于成为环境友好型及资源节约型企业，积极开展用能设备能效管理，淘汰低效能用能设备，运用新技术、新设备开展节能改造，实现用能设备集中控制，加强设备定期维护检查，提高能源利用率。

NARI-Relays is committed to becoming an environmentally friendly and resource-saving enterprise, actively carrying out energy efficiency management of energy-consuming equipment, phasing out inefficient energy-consuming equipment,

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using new technologies and equipment for energy-saving renovations, achieving centralized control of energy-consuming equipment, strengthening regular maintenance and inspection of equipment, and improving energy utilization efficiency.

## 能源管理

### Energy management

- 构建智能化能源管理平台，集成区内水、电、蒸汽、燃气、光伏发电、储能系统、中央空调及生产环境和生产指挥等子系统，整合厂内用能数据自动采集统计、能耗诊断及节能优化等功能，实现能源输入和输出全流程实时监控，利用能管平台比较、跟踪、分析厂区能耗情况。

NARI-Relays has built an intelligent energy management platform that integrates various subsystems, including water, electricity, steam, gas, photovoltaic power generation, energy storage systems, central air conditioning, production environment, and production command. This platform automatically collects and analyzes energy consumption data, conducts energy consumption diagnostics, and optimizes energy efficiency. It achieves real-time monitoring of energy input and output throughout the entire process, allowing for comparison, tracking, and analysis of energy consumption in the factory area.

- 完成厂区能管平台扩容及改造工作，九龙湖厂区水、电、汽等计量全面实现自动采集并完成远程传输上送，配备电能表 316 台，水表 533 块，已完善水、电抄表三级计量，配备蒸汽表 2 台，配备天然气表 7 台，满足国家标准中的配备率要求，实现南京厂区能耗的全景监控、统计分析、有序用电调度和负荷管控等综合功能，提升能耗管理水平。

The Company has completed the expansion and transformation of the energy management platform in the factory area, enabling the automatic collection and remote transmission of metering data for water, electricity, and steam in the Jiulong Lake factory. NARI-Relays is equipped with 316 electricity meters, 533 water meters, 2 steam meters, and 7 natural gas meters, and has improved the three-level metering for water and electricity, meeting the equipment rate requirements set by national standards. This enables comprehensive functions

such as panoramic monitoring, statistical analysis, orderly power scheduling, and load control of energy consumption in the Nanjing factory area, significantly improving energy consumption management.

- 利用能管平台分析区内主要用能设备及其运行规律，加强主要用能设备的运行管理，提高生产指挥效率，降低生产平均能效指标。

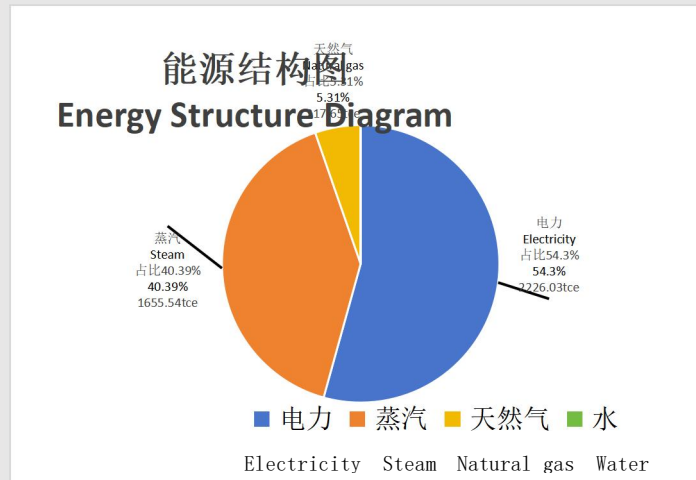
By utilizing the energy management platform, NARI-Relays has analyzed the main energy-consuming equipment and their operating patterns in the area, strengthening the operational management of these devices, enhancing production command efficiency, and reducing the average energy efficiency index in production.

- 完成南瑞继保智能化电气装备产业园生产线扩建工程能源评审，选择高效能用能设备，引入光诱导照明应用，推进光储微网应用，全面打造现代化绿色工厂。

The energy evaluation for the production line expansion project at NARI-Relays Intelligent Electrical Equipment Industrial Park has been completed, which selected energy-efficient equipment, introduced light-induced lighting applications, and promoted light storage microgrid applications, comprehensively establishing a modern green factory.

能源项 Energy Type	单位 Unit	2023 年 2023			
		九龙湖 Jiulong Lake	产业园 Industrial Park	合计 Total	折算当量标 煤 (tce) Equivalent Standard Coal (tce)
电力 Electricity	万 kWh 10,000 kWh	555.45	1255.8	1811.25	2226.03
蒸汽 Steam	吨 Ton	5182.49	12336.41	17518.9	1655.54

天然气	万方	3.64	13.87	17.51	217.65
Natural gas	10,000 m <sup>3</sup>				
水	万吨	6.69	14.66	21.35	0
Water	10,000 tons				



注：数据源：2024年8月9日能源管理评审报告（50001），折标系数参照 GB / T2589-2020。

Note: Data source: Energy Management Review Report (50001) on August 9, 2024, with conversion factors referring to GB/T2589-2020.

### 水资源管理

#### Water resources management

- 完善用水计量设施，使用节水型器具（设施设备），定期组织实施水平衡测试，依托能管平台监测抄表数据，及时发现漏损并修复，严控“跑冒滴漏”，新建设项目增加“海绵城市”建设内容，加强雨水收集利用，节约水资源。

NARI-Relays has improved water metering facilities, implemented water-saving appliances and equipment, and regularly organized water balance tests. The Company relies on its intelligent management platform to monitor meter reading data, promptly identify leaks, and repair them, strictly controlling water loss. In new construction projects, NARI has included "sponge city" initiatives to enhance rainwater collection and utilization, contributing to water resource

conservation.

- 定期开展蒸汽等压力管道（容器）检验检查，发现异常及时修复，提高热资源利用率。

The Company regularly conducts inspections and checks on steam and other pressure pipelines (vessels), promptly repairing any abnormalities to improve the utilization efficiency of thermal resources.

- 实施公司产业园二期绿化提升项目，因地制宜提升园区绿地雨水资源综合利用水平，完成园区污水总排出管旁通管及计量装置增设，计划回收利用处理达标后污水，节约水资源；

NARI-Relays has implemented the greening upgrade project for the second phase of its industrial park, enhancing the comprehensive utilization of rainwater resources based on local conditions. The Company has completed the addition of bypass pipes and metering devices next to the sewage outfall pipes in the park and plans to recycle and reuse the sewage after it meets the required standards, saving water resources.

- 系统开展水平衡测试、节水型企业建设等要点培训，同时开展节水知识讲座、节水技能培训等节水宣传活动，提高全员节水意识和节水水平。

The Company has provided training on key points such as systematically conducting water balance testing and building water-saving enterprises. Additionally, NARI-Relays has carried out water-saving awareness activities, including lectures on water-saving knowledge and training on water-saving skills, to enhance the awareness and proficiency of all staff in water conservation.

### **案例：推进照明改造，实现节能降耗**

#### **Case Study: Promoting Lighting Retrofit to Achieve Energy Savings**

南瑞继保厂区共有 8 栋综合楼，涉及办公区、设备生产区、库房区、走道电梯间等公共区域，占地面积大，照明系统控制繁琐，不能及时断电，造成能源浪费，不符合绿色、环保、低碳的生活方式。为此，南瑞继保制定了《南瑞继保照明管理系统方案设计》，着力打造智能环境灯光管理系统应用。改造

后，照明管理系统具备能效监测和分析功能，可实现限电模式下快速关闭照明，达到良好的节能效果，每天可节约用电 230-500kwh。<sup>1</sup>

NARI-Relays' factory area consists of 8 comprehensive buildings, which include office areas, equipment production areas, warehouse areas, corridor elevator areas, and other public spaces. The large area and complicated lighting system control lead to energy waste due to the inability to promptly cut off power, which is inconsistent with a green, environmentally friendly, and low-carbon lifestyle. In response, NARI-Relays has developed the "NARI-Relays Lighting Management System Design Scheme", focusing on creating applications for an intelligent environmental lighting management system. After the retrofit, the lighting management system includes energy efficiency monitoring and analysis functions, allowing for rapid shutdown of lighting in limited power mode, achieving significant energy savings. This system saves approximately 230-500 kWh of electricity per day.



节能降耗指标对比

## Energy-saving and Consumption Reduction Index Comparison

## 2.加强污染防治

### 2. Strengthen Pollution Prevention and Control

南瑞继保积极做好环境污染物排放控制，规范环保设施配置及日常运行管理，确保污染物稳定达标排放。公司加强各类废弃物的管理，制定《环境及职

<sup>1</sup> 注：数据引自 20240513《南瑞继保智能化照明控制节能改造二期项目结项报告》。

Note: The data is quoted from the Completion Report of the Second Phase of the Intelligent Lighting Control Energy-saving Transformation Project by NARI-Relays on May 13, 2024.

业健康安全过程控制程序》《废弃物管理指导书》，最大限度的使废弃物得到回收利用，减少环境污染。同时严格规范管理危险废弃物，制定《危险废弃物存放管理规定》，定期开展危险废弃物突发泄漏事故演练，及时化解危险品火灾、泄漏、爆炸事故发生的风险，保护公共财产和员工人身安全。

NARI-Relays actively controls the emission of environmental pollutants, standardizes the configuration and daily operation management of environmental protection facilities, and ensures stable compliance with pollutant emissions standards. The Company strengthens the management of distinct types of waste and has formulated the "Environmental and Occupational Health and Safety Process Control Procedures" and the "Waste Management Guidelines". These measures maximize the recycling and utilization of waste, reducing environmental pollution. At the same time, strict regulations are in place for the management of hazardous waste, with the compilation of the "Regulations on the Storage and Management of Hazardous Waste". Regular drills for leakage accidents of hazardous waste leaks are conducted to promptly address the risks of fires, leaks, and explosions of hazardous materials, protecting public property and ensuring the safety of employees.

#### 污水处理

##### **Wastewater Treatment**

采取雨水、污水分流的处理方式，生活污水经过专业处置达标后排入市政污水管网；

NARI-Relays adopts the method of separating rainwater and wastewater, ensuring that domestic sewage is treated professionally to meet standards before being discharged into the municipal sewage network.

食堂隔油池委托相关资质单位，定期回收处理，并做好回收记录；

The canteen entrusts qualified units to regularly collect and treat the grease trap and maintains accurate records of the collection.

#### 噪音治理

##### **Noise Control**

设置特定区域，企业信息中心机房的计算机服务器放入专门隔音室进行隔

音;

NARI-Relays has set up a dedicated soundproof room for the computer servers in the enterprise information center to isolate the noise.

配备专业装置, 餐厅装配一体化油烟净化机组(含静压箱)减轻噪音;

Equipped with professional devices, the restaurant features an integrated fume purification unit (including a static pressure box) to reduce noise.

定期噪音监测, 确保符合环境噪声监测技术规范要求, 降低环境纠纷风险。

Regular noise monitoring is conducted to ensure compliance with the technical specifications for environmental noise monitoring, reducing the risk of environmental disputes.

## 废弃物治理

### Waste Disposal

一般废弃物:在生产办公场所分别摆放专用的回收桶;由专业人员将其中的可回收废弃物放置于专门的库房中,其余废弃物进行专业处理。

For general waste, NARI-Relays places dedicated recycling bins in production and office areas. Professional personnel handle the placement of recyclable waste in a special storage room, while the rest of the waste is managed through professional disposal methods.

危险废弃物:专业人员接收到园区内各单位的需求后,在危险废弃物暂存间办理收储、入库、妥善存放,定期检查危险废弃物暂存间,暂存间区域内严禁烟火,摆放足够有效的灭火器材。

Regarding hazardous waste, after receiving requests from various units in the park, professional personnel manage the collection, storage, and proper handling of hazardous waste in the temporary storage room. Regular inspections of the temporary storage room are conducted, smoking is strictly prohibited in the area, and sufficient and effective fire extinguishing equipment is provided.

### 3. 践行绿色生产

#### 3. Implement Green Production

南瑞继保坚持绿色发展理念，在保证产品功能、质量以及生产过程中人的职业健康安全的前提下，采用绿色设计和绿色包装，从源头上减少有害物质使用，建设绿色供应链，优化生产流程和物流运输环节，对产品碳足迹、园区设施及生产过程产生的温室气体进行核查和改善，持续打造绿色生产体系。

NARI-Relays adheres to the concept of green development. While ensuring product functionality, quality, and occupational health and safety in the production process, the Company adopts green design and packaging to reduce the use of harmful substances at the source. It establishes a green supply chain, optimizes production processes and logistics, and assesses and improves the carbon footprint of products as well as the greenhouse gases generated by park facilities and production processes, continuously building a green production system.

#### 见证荣誉

#### Honors



南京南瑞继保工程技术有限公司获得绿色包装评价认证证书，认证等级:III-G  
Nanjing NARI-Relays Engineering Technology Co. Ltd. has obtained the Green Packaging Evaluation Certification, with a certification level of III-G.

电力保护控制屏柜绿色包装及多式联运物流方案获“2023-2024 年度中国绿色物流 ESG 实践先锋典型案例”

The green packaging and multimodal transportation logistics solution for the power protection control cabinet was awarded as a "2023-2024 China Green

## 产品绿色管理

### Green Management of Products

- **绿色设计：**不断提升产品设计水准，着重于原材料的减量化以及可回收材料的替换，持续完善回收系统建设，规范回收利用秩序，着力提高回收利用效率和无害化处理效能。严禁使用国家淘汰的落后工艺，优先选择能效高、无污染、排放低的设备和工艺。

**Green Design:** NARI-Relays continuously improves the level of product design, focusing on reducing the number of raw materials and replacing them with recyclable materials. The Company continuously enhances the development of recycling systems, and standardizes the order of recycling and utilization, to improve the efficiency of recycling and the effectiveness of harmless treatment. The use of outdated technologies that have been eliminated by China is strictly prohibited. Priority is given to energy-efficient, non-polluting, and low-emission equipment and processes.

- **绿色采购：**制定绿色采购方案，优先采购和使用无毒无害、易降解、可循环再利用的原辅材料，同时将有害物质使用、可回收材料使用、能效等环保要求纳入采购信息，引导供应商生产绿色环保产品。

**Green Procurement:** NARI-Relays develops green procurement plans that prioritize the purchase and use of non-toxic, degradable, and recyclable raw materials. Environmental requirements such as the use of harmful substances, recyclable materials, and energy efficiency are incorporated into procurement information to guide suppliers in producing environmentally friendly products.

- **清洁生产：**建设屋顶光伏电站、储能系统和智能微电网，通过源、荷、储的协调控制，解决清洁能源就地消纳问题和提升生产过程绿电利用率。

**Clean Production:** The Company constructs rooftop photovoltaic power stations, energy storage systems, and smart microgrids to address the on-site

consumption of clean energy and improve the utilization rate of green electricity in the production process through coordinated control of generation, load, and storage.

2023 年屋顶光伏发电量达 241 万 kwh。推广使用无铅工艺生产，提高可回收材料使用比率，并对生产活动中涉及到的化学物质制定禁止、管理、削减三级规定，减量使用或替代有害物质，在产品整个生命周期中最大限度减少化学物质使用。截止 2023 年底，采用无铅产品占比达 30%。

In 2023, the rooftop solar power generation reached 2.41 million kWh. NARI-Relays promotes the use of lead-free processes in production, increases the utilization rate of recyclable materials, and establishes three-level regulations on the prohibition, management, and reduction of chemicals involved in production activities. The aim is to reduce the use or substitute harmful substances, thereby minimizing the use of chemicals throughout the product lifecycle. By the end of 2023, the proportion of lead-free products reached 30%.

- **绿色包装与物流：**在保证产品质量的前提下，优先使用环保包装材料，改进运输线路与工具，选择合理的运输方式，科学地减少碳排放。2024 年 4 月，电力保护控制屏柜绿色包装及多式联运物流方案获“2023-2024 年度中国绿色物流 ESG 实践先锋典型案例”。

**Green Packaging and Logistics:** NARI-Relays prioritizes the use of environmentally friendly packaging materials, improves transportation routes and tools, selects appropriate transportation methods, and scientifically reduces carbon emissions while ensuring product quality. In April 2024, the green packaging and multimodal transport logistics solution for power protection control cabinets was awarded as a 2023-2024 China Green Logistics ESG Practice Pioneer Case.

- **温室气体排放核查：**委托南京市节能技术服务中心对 2023 年度温室气体排放进行核查，依据《机械设备制造企业温室气体排放核算方法与报

告指南（试行）》，2023年度温室气体排放总量（范围1+2）为15551.31tCO<sub>2</sub>。

**Greenhouse Gas Emissions Verification:** NARI-Relays entrusts the Nanjing Energy Conservation Technology Service Center to verify greenhouse gas emissions for the year 2023. According to the "Guidelines for Greenhouse Gas Emissions Accounting and Reporting for Mechanical Equipment Manufacturing Enterprises (Trial)," the total greenhouse gas emissions (Scope 1+2) for 2023 are 15,551.31 tons of CO<sub>2</sub>.

## 案例

### Case Study

#### 1、电力保护控制屏柜绿色包装及多式联运物流方案

##### 1. Green Packaging and Multimodal Transportation Logistics Solution for Power Protection Control Cabinets

南瑞继保积极思考、大胆创新，从物流包装标准化、智能化、绿色化、数字化、节约化出发，力争降本增效、提速增质。实现物流过程的数字化和全生命周期管理，对于中远距离紧急货物和零单货物积极采用多式联运方案，包装方案的改进和整体物流成本大幅降低，时效性提升显著。

NARI-Relays actively thinks and innovates boldly, focusing on the standardization, intelligence, greening, digitization, and cost-saving of logistics packaging to strive for cost reduction, efficiency enhancement, and improved quality and speed. By digitizing the logistics process and managing its entire lifecycle, the Company adopts multimodal transport solutions for medium and long-distance urgent goods and small orders, significantly improving packaging solutions and reducing overall logistics costs while enhancing timeliness.



工厂	Factory
收件	Receiving
干线运输	Trunk transportation
配送	Delivery
现场	On-site
耗时 3 天	<b>It took 3 days.</b>
运费 2.2 万	<b>Shipping fee is 22,000.</b>
耗时 1.5 天	<b>It took 1.5 days.</b>
运费 1.1 万	<b>Shipping fee is 11,000.</b>
针对时间紧、距离远、数量少的客户订单，由原先专车发运改为多式联运，提高了运输时效，降低运费。	For customer orders with tight deadlines, long distances, and small quantities, switching from dedicated transportation to multimodal transportation has improved transportation efficiency and reduced costs.
以云南某电厂项目为例原先需耗时 3 天，运费 2.2 万，改为多式联运后耗时减为 1.5 天，运费 1.1 万。	Taking a power plant project in Yunnan province as an example, the original transportation time was 3 days with a cost of 22,000 yuan. After switching to multimodal transportation, the transportation time was reduced to 1.5 days with a cost of 11,000 yuan.
专车发货	<b>Dedicated transportation</b>
多式联运	<b>Multimodal transportation</b>

## 2、车间环境智能控制系统应用

### 2. Application of Intelligent Control System for Workshop Environment

2023 年上半年完成电装车间环境智能控制系统的设计及实施，全部采用自有产品，实现暖通设备和环境指标的实时监视及智能控制，4 月份上线正

式运行至年底，暖通电力消耗比 2022 年同期下降 20%以上。

The Company has completed the design and implementation of the intelligent environmental control system for the electrical assembly workshop in the first half of 2023, exclusively utilizing proprietary products. This system enables real-time monitoring and intelligent control of HVAC equipment and environmental indicators. Officially launched in April, it is expected to operate until the end of the year, achieving a reduction in HVAC power consumption of over 20% compared to the same period in 2022.



#### 4.厚植绿色文化

#### 4. Cultivate a Green Culture

南瑞继保倡导“节约每一分钱、节约每一张纸、节约每一寸导线”，推行无纸化绿色办公，鼓励员工绿色出行，开展园区绿色建设，努力建设资源节约型和环境友好型企业，共同建设美丽、健康、可持续发展的地球家园。

NARI-Relays advocates for "saving every penny, saving every piece of paper, saving every inch of wire", promotes paperless green office, encourages green commuting for employees, carries out green construction in the park, strives to build a resource-saving and environmentally friendly enterprise, and jointly builds a beautiful, sound, and sustainable Earth home.

#### 绿色办公

#### Green Office

- 从日常小事做起，以节能减排的方式进行办公。

NARI-Relays encourages starting with small daily actions and working in an energy-saving and emission-reducing manner in the office.

- 鼓励无纸化办公，由纸质流程改为电子流程，化繁为简，节约办公用品的同时也节约了办理流程的时间。

The Company promotes paperless office practices, and replaces paper-based processes with electronic ones to simplify procedures, saving office supplies and processing time.

- 打印纸尽量重复利用，或双面打印，使用过的硒鼓交给归属部门回收利用，既可以环保，又可以节省成本。重复利用各种档案袋、资料袋等。

Employees should try to reuse printing paper as much as possible or print on both sides. Used toner cartridges should be returned to the appropriate department for recycling, which is not only environmentally friendly but also cost-effective. The Company encourages the reuse of various document bags and file bags.

- 控制日常卫生纸、擦手纸、垃圾袋等易耗品的用量，环保的同时也能够节约成本。

NARI-Relays controls the consumption of daily consumables such as toilet paper, hand towels, and garbage bags to be environmentally friendly and cost-effective.

- 加强日常节电管理，电脑设置睡眠和待机模式，不用时自动进入节能状态。科学优化空调、照明等办公设备的用电场景，午休和下班后关闭所有办公设备。

NARI-Relays enhances daily electricity management by setting computers to sleep and standby mode, which automatically enters an energy-saving state when not in use. The Company scientifically optimizes the power consumption scenarios of office equipment such as air conditioning and lighting and turns off all office equipment during lunch breaks and after work.

- 严格控制车辆清洗、户外绿地养护用水。厂区内禁止清洗私家车辆，绿地浇灌用水湖水抽取，对绿地进行浇灌。

NARI-Relays strictly controls the use of water for vehicle washing and outdoor green space maintenance. It is prohibited to wash private vehicles in the factory area. Water for greenery irrigation is extracted from the lake for watering the greenery.

- 推行绿色出行、低碳生活，为降低城市废弃排将通勤班车改为新能源汽车，同时在厂区内增加充电桩设备，共计 9 台。

The Company promotes green travel and low-carbon lifestyles by replacing commuting shuttle buses with new energy vehicles and installing a total of 9 charging stations in the factory area.

## 环保行动

### Environmental Protection Actions

- 加强节能减排宣传教育，开展环保法律制度宣贯、环保知识培训，提高全员生态文明意识和环保知识水平。

- NARI-Relays enhances publicity and education on energy conservation and emission reduction, carrying out the dissemination of environmental laws and regulations, providing training on environmental knowledge, and raising awareness and knowledge of ecological civilization and environmental protection among all staff.

- 做好废弃分类，交给相关部门进行回收或重新利用，减少对自然资源的消耗，降低环境污染。

- Employees should sort waste properly and hand it over to relevant departments for recycling or reuse to reduce the consumption of natural resources and minimize environmental pollution.

- 倡导垃圾分类，在办公区域内放置分类垃圾桶，做好垃圾分类，人人有责。

- NARI-Relays advocates for garbage classification, placing classified garbage bins in office areas and ensuring that everyone is responsible for proper sorting.

● 做好厂区美化、植树造林等工作，每年对厂区绿化环境进行提升，保护绿色空间。引导和激励员工保护自然环境、参与环保行动，支持林业保护项目或在家中种植绿色植物，改善生态环境。

● The Company beautifies the factory area, plants trees and forests, and improves the green environment of the factory area every year to protect green spaces. NARI-Relays guides and motivates employees to protect the natural environment, participate in environmental protection actions, support forestry conservation projects, or plant green plants at home to improve the ecological environment.



厂区绿化环境改造，以化繁为简风格，开阔视野，局部调整，提升绿化档次，美化办公环境。

The transformation of the factory's green environment adopts a simple and elegant style, broadening the field of vision, making partial adjustments, enhancing the level of greening, and beautifying the office environment.

### 三、持续领先·做至臻品质的匠造者

#### III. Sustaining Leadership · To Be a Craftsman of Excellence

南瑞继保坚信打造行业领先的产品是公司履行社会责任、实现高质量发展的极为重要的一环。为此，公司以科技创新为核，以安全质量为基，以客户需求为导向，持续增强自主研发与创新能力，力求为客户带来更多高质、高品的绿色低碳产品，铸就行业领先的服务口碑。本篇章从创新引领发展、安全生产保障、优质产品服务三维度入手，在促进技术创新、推动数字化转型、恪守安全运行、强化品质保障等方面响应联合国可持续发展目标 SDGs7、8、9、12 项的要求。

NARI-Relays believes that creating industry-leading products is a crucial part of fulfilling social responsibility and achieving high-quality development. To this end, the Company focuses on technological innovation as its core, with safety and quality as its foundation and customer demand as its guiding principle. NARI-Relays continuously enhances its independent research and development and innovation capabilities, striving to deliver more high-quality, premium green, and low-carbon products to customers while building an industry-leading service reputation. This chapter addresses the requirements of the United Nations Sustainable Development Goals (SDGs) 7, 8, 9, and 12 through three dimensions: innovation-driven development, safety production guarantees, and quality product services. It emphasizes promoting technological innovation, promoting digital transformation, adhering to safe operations, and strengthening quality assurance.

#### 南瑞继保与 SDGs

#### NARI-Relays and SDGs



#### (一) 创新引领发展

#### (I) Innovation-driven Development

南瑞继保以“做精主业、外延发展”的战略文化为引领，秉承“以务实的态度，

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解决本行业历史遗留的和发展中出现的实际问题。解决一个问题前进一步，直到引领该领域技术的发展”的创新文化，瞄准技术高端市场，依托公司多专业融合的技术研发平台和快速产业化能力，务实解决行业存在的问题。以成就百年民族高科技企业为远景目标，致力于成为世界一流的电气控制企业，“以电力保护控制、智能电力装备、工业过程控制三大产业链为主线，通过持续创新，保持产业领先地位。

NARI-Relays is guided by a strategic culture that emphasizes "excellence in core business and expansion of development". The Company adheres to an innovative culture that takes a pragmatic approach to solve historical and emerging challenges within the industry, advancing step by step until it leads technological development in the field. Targeting the high-end technology market, NARI-Relays relies on its multidisciplinary integrated technology research and development platform and rapid industrialization capabilities to pragmatically address existing industry problems. With a vision of establishing a century-old national high-tech enterprise, NARI-Relays is committed to becoming a world-class electrical control company. The Company focuses on three major industrial chains: power protection control, intelligent power equipment, and industrial process control, aiming to maintain its leading position in the industry through continuous innovation.

## **1.促进技术创新**

### **1. Promote Technological Innovation**

南瑞继保深入实施创新驱动发展，坚持问题导向，持续推进科研和产业深度融合。始终突出党建引领，突出创造价值，突出科技自强，瞄准建设世界一流企业，着力推动高质量发展。

NARI-Relays is committed to implementing innovation-driven development, maintaining a problem-oriented approach, and continuously advancing the deep integration of scientific research and industry. The Company emphasizes the leadership of party building, focuses on creating value, champions self-reliance in science and technology, and aims to establish itself as a world-class enterprise while striving for high-quality development.

## 数读继保

### Data on NARI-Relays

- 研发投入 5.1 亿元，研发投入占营业收入 3.3%  
Research and development investment amounted to 510 million yuan, accounting for 3.3% of operating revenue.
- 承担国家重点研发计划项目 1 项  
Undertook one national key research and development program project.
- 登记软件著作权 47 项  
Registered 47 software copyrights.
- 发表核心论文 12 篇  
Published 12 core papers.
- 获得 279 项专利授权项，其中发明专利 199 项  
Obtained 279 patent grants, including 199 invention patents.
- 获各级各类科技奖励 14 项，其中省部级及以上奖励 1 项  
Received 14 awards in various levels and categories of science and technology, including 1 award at the provincial and ministerial level or above.

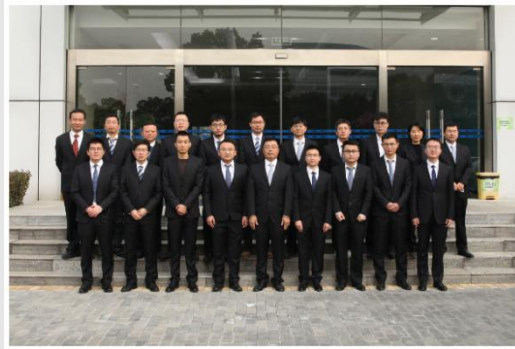
## 创新型人才梯队

### Innovative Talent Pool

- 研发人员 289 人，研发技术人员占比 17.5%  
289 R&D personnel, with R&D technical personnel accounting for 17.5%.
- 国家级专家人才 1 名（1 人次）  
Included one national-level expert (1 person)
- 省部级专家人才 11 名（12 人次），8 人获江苏省“333 工程”培养支持专项  
Featured 11 provincial and ministerial-level expert talents (12 persons), with 8 of them receiving support from Jiangsu Province's "333 Project" training program.

## 新型电力系统科技攻关团队

### New Power System Technology Research Team



**新型电力系统“源网荷储”技术科技攻关团队：**该团队高质完成国内首个具备独立运行能力、低短路容量的区域级源网荷储新型电力系统项目，实现了公司构网型储能、源网荷储控制、快速黑启动等先进技术的综合应用，保障了新型电力系统安全可靠运行。

**Research Team for the New Power System Technology "Source-grid-load-storage":** This team successfully completed the first regional source-grid-load-storage new power system project in China with independent operation capability and low short-circuit capacity. The project realized the comprehensive application of grid-forming energy storage, source-grid-load-storage control, fast black start, and other advanced technologies, ensuring the safe and reliable operation of the new power system.



**特高压直流与柔性输电高端装备攻关团队：**团队长期致力于特高压直流和柔性输电基础理论研究、核心装备研制及重大工程实施。

**Research Team on UHVDC and Flexible Transmission High-End Equipment:**

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This team has long been committed to the basic theoretical research, core equipment development, and major project implementation of UHVDC and flexible transmission.

先后突破百余项关键技术，研制了国际领先的特高压直流输电、柔性直流电网、特高压柔性直流输电和交流潮流控制等高端装备，大幅提升电力传输能力和灵活性，有力支撑“西电东送”国家战略和新能源为主体的新型电力系统构建。

Having successively broken through more than a hundred key technologies, the team developed internationally leading UHVDC transmission, flexible DC power grid, UHV flexible DC transmission, and AC power flow control equipment. These advancements significantly enhanced power transmission capacity and flexibility, providing strong support for the national strategy of West-to-East Power Transmission Project and the construction of a new type of power system with new energy as the main component.

**自主可控 SIS 功能安全仪表系统技术攻关团队：**该团队克服功能安全产品研发难度大、认证周期长等困难，攻克了三重冗余、表决降级、全信号链的自诊断等多项关键技术，项目研发时间同比友商缩短了一半，取得了首套自主可控安全仪表系统的国际权威机构 SIL3 认证，成功应用于玉门油田可再生能源制氢示范项目。

**Autonomous and Controllable SIS Functional Safety Instrument System Technology Research Team:** This team overcame challenges such as the high development complexity and long certification period of functional safety products. They successfully tackled key technologies including triple redundancy, voting degradation, and self-diagnosis of the entire signal chain. The project development time was halved compared to competitors, and the team obtained SIL3 certification from an international authoritative organization for the first set of autonomous and controllable safety instrument systems. This system has been successfully applied in the demonstration project for renewable energy hydrogen production in Yumen Oilfield.

**一次设备在线监测系统技术攻关团队：**充分发挥多专业融合优势，坚持平台化开发理念，积极开展调相机、输电线路、断路器、变压器、变压器套管以及避雷器等设备状态在线监测技术研究以及应用开发，形成了完善的发输变配监测产品体系，推进一体化在线监测系统在渭南南等重点工程顺利实施，获得用户充分肯定，拓展了公司技术和产品体系。

**Team Dedicated to Technical Research of Online Monitoring Systems for Primary Equipment:** This team leveraged the advantages of multiple disciplines and adhered to the concept of platform-based development. They actively conducted research and application development of online monitoring technologies for devices such as phase-shifting cameras, transmission lines, circuit breakers, transformers, transformer bushings, and lightning arresters. This resulted in a complete product system for monitoring generation, transmission, transformation, and distribution. The team promoted the successful implementation of integrated online monitoring systems in key projects such as Weinan South, receiving full recognition from users and expanding the company's technological and product system.

## 科技创新管理

### Technological Innovation Management

- **以解决问题为导向：**坚持公司倡导的“以解决问题为导向”的创新文化，打造领先的“技术研究-产品研发-成果产业化”全过程创新链，建立起成果和市场之间的“桥梁”，所有创新成果拥有自主知识产权，并能快速实现产业化，在打破国外垄断的同时，力争成为行业主流产品。

**Problem-solving Oriented:** The Company adheres to the innovative culture of "problem-solving oriented," creating a leading innovation chain of "technology research - product development - result industrialization" throughout the process. This approach establishes a "bridge" between achievements and the market, ensuring that all innovative achievements have independent intellectual property rights and can be quickly industrialized, so as to become mainstream

products in the industry while breaking foreign monopolies.

- **多专业融合:** 以院士为核心, 组建了电力领域专业齐全的研发创新团队, 覆盖电力系统及其自动化、电力电子、计算机、工业控制、通信、机械、热工、光学、物理等十多个研发所需的专业方向。团队集合多专业优势, 既可以专注某一行业进行深度挖掘, 又可以完成新行业的广度拓展, 支撑公司从单一产品制造商向行业整体解决方案供应商转变。

**Multi-disciplinary Integration:** With academicians at the core, NARI-Relays has formed a research and innovation team in the electric power field, across more than ten required fields for research and development, including power systems and automation, power electronics, computer science, industrial control, communication, mechanical engineering, thermal engineering, optics, and physics. This team leverages multiple professional advantages, allowing them to focus on in-depth exploration of particular industries while also expanding the breadth of new industries. This supports the company's transition from a manufacturer of specific product to a provider of comprehensive industry solutions.

- **平台化研发:** 建成三大研发支撑平台 (UAPC 硬件平台、SOPHIC 软件平台、系统分析平台), 为电力系统和工业领域控制保护的系统研究、技术开发和设备研制提供技术支撑。平台+应用的开发模式, 打通了技术和产品的跨专业、跨部门集成通道, 通过平台的迭代升级和持续创新促进产品的功能优化和性能提升, 推动整体技术的不断进步。构建标准化重用组件库, 利用可视化开发工具, 通过“搭积木”方式完成功能集成, 降低了产品开发复杂度, 满足了不同部门间技术共享和软硬件重用的应用需求。

**Platform-based R&D:** NARI-Relays has established three major R&D support platforms (UAPC hardware platform, SOPHIC software platform, system analysis platform) to provide technical support for system research, technology development, and equipment development in power systems and industrial control protection. The development model of platform plus application opens up cross-disciplinary and cross-departmental integration channels for

technology and products. Through iterative upgrades and continuous innovation of the platforms, this approach promotes the optimization of product functions and performance improvement, driving the continuous progress of overall technology. By building a standardized reusable component library and utilizing visual development tools, the integration of functions is completed in a "building blocks" manner, which reduces the complexity of product development and meets application requirements for technology sharing and software and hardware reuse among different departments.

- **矩阵式管理：**实行矩阵式管理，垂直维度上，研发创新团队采用院级、所级、部门级三级管理组织架构，侧重各专业的整体能力建设和管理；水平维度上，通过项目组织各专业协作共同完成产品或技术开发。以年度 KPI 为目标牵引，以 CMMI5 软件能力成熟度集成模型为管理框架，注重过程管理，采用 360 度考核方法，为更高效的部门协作和专业融合提供了制度保障。

**Matrix Management:** NARI-Relays implements matrix management, with a vertical structure where the research and innovation team adopt a three-level organizational framework at the institute, department, and division levels, focusing on overall capacity building and management of each specialty. Horizontally, various specialties collaborate through project organization to jointly complete product or technology development. Driven by annual KPIs and managed within the framework of the CMMI5 software capability maturity model, the Company emphasizes process management and adopts a 360-degree assessment method, providing institutional guarantees for more efficient departmental collaboration and professional integration.

- **全员研发：**通过多方参与、群策群力的全员研发管理模式，充分发挥营销、设计、工程、制造等部门接近用户、了解现场的优势，避免研发工作与产业发展和实际需求相脱节。构建营销与研发互动机制，开展需求可行性分析；建立工程现场质量反馈单机制，确保现场问题解决渠道畅通；质控中心关注现场异常和问题处理效果和效率，推动研发对发现的质量个案

问题保持高度敏感性，加快问题的解决效率。

**All-staff R&D:** NARI-Relays employs an all-staff R&D management model that encourages multi-party participation and collective efforts. This model fully leverages the advantages of marketing, design, engineering, manufacturing, and other departments, which are close to users and understand the field. It aims to avoid disconnection between R&D work and industrial development as well as actual needs. NARI-Relays establishes a mechanism for marketing and R&D interaction, conducts feasibility analyses of demand, and implements a quality feedback form mechanism at engineering sites to ensure smooth channels for addressing on-site problems. The quality control center focuses on abnormalities and the effectiveness and efficiency of problem handling, promoting R&D to maintain high sensitivity to discovered quality issues and accelerating the efficiency of problem resolution.

- **以研发核心:** 构建以研发为核心，销售、设计、服务、生产融为一体的创新体系。从经费投入、人才团队和支撑平台等方面为研发创新保驾护航。研发创新团队覆盖电气工程、电子科学与技术、计算机科学与技术、动力工程及工程热物理等 14 个双一流建设学科。

**Focus on R&D:** NARI-Relays builds an innovative system that integrates sales, design, service, and production around research and development as the core. The Company provides strong support for research and innovation in terms of funding, talent teams, and support platforms. The research and development innovation team covers 14 double first-class construction disciplines, including electrical engineering, electronic science and technology, computer science and technology, power engineering, and engineering thermophysics.

## 研发项目组织管理流程

### R&D Project Organization Management Process

1. 研发管理采用以 CMMI 为核心，兼容 ISO9001 质量管理的研发流程体系，

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新产品研发以及现有产品的软硬件重大升级工作，通过项目立项，任命产品负责人为项目经理，并成立专门的项目组进行产品开发。

1. Research and development management employs a process system centered on CMMI, compatible with ISO 9001 quality management. For new product development and significant upgrades of existing products, a project is initiated by appointing a product manager as the project manager, and a dedicated project team is formed for product development.

2. 通过项目立项—初步计划—需求分析—详细计划—设计/系统设计—实现与集成—系统测试—验收测试—项目结项等全生命周期的过程和产物管控，并使用专用研发管理工具进行项目管理。

2. The entire lifecycle process and deliverables of a project are managed, including project initiation, preliminary planning, requirement analysis, detailed planning, design/system design, implementation and integration, system testing, acceptance testing, and project closure, using specialized R&D management tools for effective project oversight.

3. 将关键技术研究、技术改进、专利论文、软著等知识产权管理、科技成果以及产业化支撑等方面贯穿到项目立项规划、评审、验收等重要里程碑阶段中。

3. Key technology research, technology improvements, patent papers, software copyrights, intellectual property management, scientific and technological achievements, and industrialization support are integrated into important milestones, such as project initiation planning, review, and acceptance.

4. 建立项目管理和研发管理制度，并通过研发项目执行情况不断改进和更新制度文件，不断提升研发质量和效率。

4. Project management and R&D management systems are established, with continuous improvements and updates to system documents based on the execution of R&D projects, aiming to enhance overall research and development quality and efficiency.

- 科技成果转化

**Transformation of Scientific and Technological Achievements**

**科研创新取得新突破：**核心技术和产品覆盖三大产业链，在构网控制、云边融合、柔性输电、过程控制等技术领域实现重点突破。全新技术方向 2023 年实现合同额近 30 亿元，占公司总合同额的 15%。

**Breakthrough in Scientific Research and Innovation:** Core technologies and products cover three major industrial chains, achieving key breakthroughs in areas such as network construction and control, cloud-edge integration, flexible power transmission, and process control. The new technology direction is expected to secure contracts totaling nearly 3 billion yuan in 2023, accounting for 15% of the company's total contract amount.

- 国内首台 GSSVG（电网支撑型 SVG）在新疆木垒工程成功投运，提升暂态电压支撑能力一倍以上。

The first GSSVG (Grid Support Type SVG) in China has been successfully put into operation in the Mulei Project in Xinjiang, increasing transient voltage support capability by more than double.

- 国内首台 SSC（静止调相机）在吉林八面成功实施，将提升接入点 60% 以上的短路容量。

The first SSC (Static Synchronous Compensator) in China was successfully implemented in Bamian, Jilin, enhancing the short-circuit capacity of access points by over 60%.

- 研制基于自研驱动的 6500V 非对称 IGCT 柔直换流阀，实现 4000A 电流可靠关断，完成阀段试验，具备工程应用条件。

A 6500V asymmetric IGCT flexible HVDC valve was developed based on self-developed drive technology, achieving reliable interruption of 4000A current. The valve section test has been completed, meeting engineering application requirements.

- 提出基于二极管和模块化多电平换流阀组合的黑启动和构网运行成套解决方案，满足海上风电轻型化要求。

A complete solution for black start and grid connection operation was proposed, based on diodes and modular multi-level converters, fulfilling the lightweight requirements for offshore wind power generation.

- 研发防腐、冗余 IO 的高可靠化工 DCS 系统，自主可控 SIS 系统行业率先通过德国 TUV 认证。

A highly reliable chemical DCS system with anti-corrosion features and redundant I/O was developed, and the independently controllable SIS system was the first in the industry to pass German TUV certification.

**市场拓展实现新突破：**新技术、新产品在电网、发电、工控以及国际市场上取得丰硕成果。保障柔性输电重大项目实施，拓展 DCS、PLC 系统应用，打造变电站一体化智能运维行业标杆。

**Market Expansion Achieves New Breakthroughs:** New technologies and products have achieved abundant results in the power grid, power generation, industrial control, and international markets. The implementation of major projects for flexible power transmission has been ensured, expanding the application of DCS and PLC systems, and establishing a benchmark in the industry for integrated intelligent operation and maintenance of substations.

- 绿电制氢方向实现突破，公司首套制氢工艺 DCS、SIS 系统中石油玉门油田投入使用。

A breakthrough has been achieved in the green hydrogen production sector, with the company's first set of hydrogen production process DCS and SIS systems now in use at PetroChina's Yumen Oilfield.

- 工控产品首次进入交通行业，重庆地铁 4 号线西延 BAS 系统 PLC 整线应用。

Industrial control products have entered the transportation industry for the first time, with the PLC system of the BAS on the west extension of Chongqing Metro Line 4 being fully implemented.

- 研发基于策略描述语言的稳控电子化策略表工具，并在新疆电网成功应用，为实现在线稳控奠定基础。

A stable control electronic strategy table tool was developed based on strategy description language and successfully applied in the Xinjiang power grid, laying the foundation for online stability control.

### 案例：

#### Case:

首套电网支撑型 SVG（GSSVG）新疆华电木垒工程成功投运

#### The First Set of Grid-Supporting SVG (GSSVG) in Xinjiang Huadian Mulei Project Successfully Put into Operation

随着双碳目标的推进，新型电力系统建设进程日益加快，新能源占比的大幅提高导致大电网稳定性尤其是电压稳定问题突出。2023 年 12 月 29 日，由南瑞继保成套供货的电网支撑型 SVG 在新疆华电木垒 220kV 风电汇集站顺利投运。南瑞继保电网支撑型 SVG 采用成熟的高压级联型全桥拓扑并结合丰富运行经验的构网型控制技术，可在故障瞬间维持内电势幅值不变，实现自然无延时的电流响应，在暂态电压支撑方面具备与调相机相似的外特性，具备响应速度快、阻抗特性好的特点，同时能够满足故障恢复后的无功需求，可有效抑制系统振荡，提高电网的稳定水平。构网型 SVG 装置应用于木垒风电汇集站，有效抑制了风电场的无功和电压波动，提升纯新能源大容量风电汇集送出能力。

With the advancement of dual-carbon goals, the construction of new power systems is accelerating, and the significant increase in the share of new energy sources has highlighted issues of grid stability, particularly voltage stability. On December 29, 2023, the grid-supporting SVG supplied by NARI-Relays was successfully put into operation at the Huadian Mulei 220kV wind power collection station in Xinjiang. NARI-Relays' grid-supporting SVG utilizes a mature high-voltage cascaded full-bridge topology combined with grid-type control technology backed by extensive operational experience. It can maintain internal voltage magnitude unchanged during faults, achieving a natural and instantaneous current response. This device exhibits external characteristics similar to a phase shifter in transient voltage

support, featuring fast response speed and favorable impedance characteristics. Additionally, it meets reactive power demands after fault recovery, effectively suppresses system oscillations, and enhances the stability of the power grid. The grid-forming SVG device applied at the Mulei wind power collection station successfully mitigates reactive power and voltage fluctuations from the wind farm, thereby improving the transmission capacity of large-scale wind power generated from pure new energy sources.



**案例：浙江景宁绿电 100%泛微网工程正式投入运行**

**Case: Zhejiang Jingning Green Power 100% Microgrid Project Officially Put into Operation**

2023年1月30日，由南瑞继保承建的浙江景宁绿电100%泛微网工程正式投运。该工程将微电网精细控制和离并网稳定运行技术相融合，通过分层分级调控和源网荷储协同，实现对辖区内清洁能源的统一管控，推动主配电网智慧化、绿色化、主配微一体化演进。通过资源聚合、源荷预测、协调控制、微网支撑等技术手段，实现各平衡区的区内自治、区间互济的多尺度多

目标优化，让清洁能源发电从原来的“零散无序跟着天气走”转变为“集中有序跟着需求走”，提升绿电供应的可控性和稳定性。预计该工程使景宁县域100%绿电供应时长提升30%，新增新能源消纳能力11万千瓦。<sup>2</sup>

On January 30, 2023, the Zhejiang Jingning Green Power 100% Microgrid Project, constructed by NARI-Relays, was officially put into operation. This project integrates fine control of microgrids with stable operation technology for islanding, achieving unified management of clean energy within the jurisdiction through hierarchical regulation and coordinated operation of generation, grid, load, and storage. It promotes the intelligent, green, and integrated evolution of both primary and secondary distribution networks. Utilizing technologies such as resource aggregation, source-load forecasting, coordinated control, and microgrid support, the project enables multi-scale and multi-objective optimization, allowing for intra-area autonomy and inter-area mutual assistance. This transforms clean energy generation from being "scattered and dependent on weather" to "centralized and driven by demand," thereby enhancing the controllability and stability of green energy supply. It is anticipated that this project will increase the supply duration of 100% green electricity in Jingning County by 30% and add a new energy consumption capacity of 110,000 kilowatts.



<sup>2</sup> 来源: [http://www.jingning.gov.cn/art/2023/1/31/art\\_1377277\\_59051596.html](http://www.jingning.gov.cn/art/2023/1/31/art_1377277_59051596.html)

Source: [http://www.jingning.gov.cn/art/2023/1/31/art\\_1377277\\_59051596.html](http://www.jingning.gov.cn/art/2023/1/31/art_1377277_59051596.html) (Official website of Jingning County Government)

**案例：国内首套 800MW 级自主可控水电机组保护顺利投运**

**Case: The First Domestic 800MW Independently Controllable Hydropower Unit Protection System Successfully Put into Operation**

2023 年 4 月 26 日，三峡集团向家坝电厂 5 号机组顺利完成所有试验项目，成功投运。南瑞继保为 5 号机组改造提供全套自主可控发电机保护、变压器保护、非电量保护等装置。这是国内首次在 800MW 级巨型水电机组上应用自主可控机组保护装置，标志着我国发电领域核心保护控制系统完全自主可控再上新台阶。自 2020 年以来，南瑞继保自主可控机组保护装置已在滇东电厂 600MW 火电、金陵燃气电厂 390MW 9F 燃机、小湾电站 700MW 水电等国内各类大型机组上取得广泛应用。向家坝电厂 5 号机组自主可控保护改造项目是三峡集团首台大型机组自主可控机组保护应用，具有重要的示范意义。

On April 26, 2023, the Unit 5 of the Xiangjiaba Dam Power Plant under the Three Gorges Group successfully completed all test items and was put into operation. NARI-Relays provided a complete set of self-controllable generator protection, transformer protection, and non-electric quantity protection devices for the transformation of Unit 5. This marks the first application of an independently controllable unit protection device on an 800MW giant hydroelectric unit in China, representing a significant milestone in achieving a fully independent controllable core protection control system in the power generation sector. Since 2020, NARI Relays' independently controllable unit protection devices have been widely implemented in various large units across China, including the 600MW thermal power plant in Dian Dong, the 390MW 9F gas turbine at Jinling Gas Power Plant, and the 700MW Xiaowan hydropower station. The retrofit project for Unit 5 at Xiangjiaba Power Plant is the first application of an autonomous controllable protection system in a large-scale unit by the Three Gorges Group, holding great demonstration significance.



**案例：首个采用自主可控直流控保系统的直流改造工程-葛南直流顺利投运**  
**Case: The First DC Retrofit Project Using Self-Controllable DC Control and Protection System - The Genan DC Project Successfully Put into Operation**

2023年6月18日，首个采用南瑞继保自主可控直流控保系统的直流改造工程-葛南直流顺利投运。直流控制保护系统是直流工程的“大脑”；为彻底解决其面临的芯片“卡脖子”问题，南瑞继保快速完成自主可控替代开发。产品功能完备、性能优异、可靠性高、兼容性强，获得业内高度认可。葛南改造投运以来控制保护零缺陷，更加坚定了国网公司推进直流输电领域国产替代的信心，在后续江城改造中实现了直流控保、交流保护、阀冷控保等所有改造设备的自主可控全替代。南瑞继保在行业内率先实现供应链的安全可控，破解能源行业保护控制设备芯片卡脖子难题。

On June 18, 2023, the first DC retrofit project utilizing the self-controllable DC protection system developed by NARI-Relays was successfully put into operation—the Genan DC project. The DC control protection system serves as the "brain" of DC engineering; to thoroughly address the chip bottleneck issue it faces, NARI swiftly completed the development of an independently controllable replacement. The product is comprehensive, with excellent performance, high reliability, and strong compatibility, receiving high acclaim within the industry. Since the operation of the Genan retrofit, zero defects in control and protection

have bolstered the State Grid Corporation's confidence in advancing domestic substitution in the HVDC transmission sector. In the subsequent Jiangcheng retrofit, all equipment for DC control and protection, AC protection, and valve cooling control and protection was independently and controllably replaced. NARI-Relays is the first in the industry to achieve a secure and controllable supply chain, effectively addressing the chip bottleneck issue for control devices in the energy sector.



## 2.推动数字化转型

### 2. Promote Digital Transformation

公司积极回应国家《数字中国建设整体布局规划》，将数字思维嵌入发展战略，持续优化完善公司数字化建设体系，以数据价值打通生产经营全环节，推动内部数据资源共享，提高内部管理运营效率，赋能公司可持续长效发展。

The Company actively responds to the National Plan for the Overall Layout of Digital China Construction, embedding digital thinking into its development strategy. It continuously optimizes and improves its digital construction system, leveraging data value to streamline the entire production and operation process. This approach promotes internal data resource sharing, enhances internal management and operational efficiency, and empowers the company's sustainable long-term development.

## 数字化智能化转型目标及行动

### **Digitalization and Intelligent Transformation Goals and Actions**

- **加强数字化、智能化转型顶层设计：**发布《智能制造发展规划白皮书》、《智能制造信息技术建设规划》等战略规划，形成公司数字化、智能化建设框架蓝图，并组织对标智能制成熟度四级要求，持续推进智能制成熟度等级。

**Enhance the top-level design of digitalization and intelligent transformation:** The Company releases strategic plans such as the "White Paper on Intelligent Manufacturing Development" and the "Plan for Information Technology Construction in Intelligent Manufacturing." This initiative forms a framework blueprint for digitalization and intelligent construction within the company and organizes benchmarking against the requirements of the four levels of intelligent manufacturing maturity. The company continuously promotes the advancement of intelligent manufacturing maturity levels.

- **推动数据管理体系建设：**务实推进数字化转型，全面开展数据治理，通过主数据、元数据、数据标准的规范管控，有效改善了公司数据质量。

**Promote the construction of a data management system:** The Company pragmatically advances digital transformation and comprehensively carries out data governance. By implementing standardized control of master data, metadata, and data standards, it effectively improves the quality of company data.

- **做好云平台建设运营：**深化工业互联网和智能制造发展，成功实施智慧物流系统、回款管理系统，建设并投运 NR 云计算中心，支持生产运营和订单交付效能持续提升。

**Build and operate cloud platforms effectively:** The Company deepens the development of the industrial Internet and smart manufacturing, successfully

implementing smart logistics systems and accounts receivable management systems. Additionally, it establishes and launches the NR cloud computing center to support continuous improvement in production operations and order delivery efficiency.

#### 案例：智能单装置出厂试验系统搭建

##### **Case: Establishment of Intelligent Single Device Factory Test System**

持续深耕调试自动化，加强生产过程细节管理，不断提升装置生产能力。2023 年完成智能单装置出厂试验一期开发，首次实现单装置出厂试验全自动调试，调试无人化覆盖率提升至 30%，PCS-9600 系列单装置出厂效率提升 100%。

The Company continuously deepens the automation of debugging, strengthens the management of production process details, and constantly improves the production capacity of its equipment. In 2023, the first phase of the development of the intelligent single-unit factory test system was completed, achieving fully automatic debugging of single-unit factory tests for the first time. The unmanned debugging coverage rate increased to 30%, and the efficiency of the PCS-9600 series single-unit factory test increased by 100%.



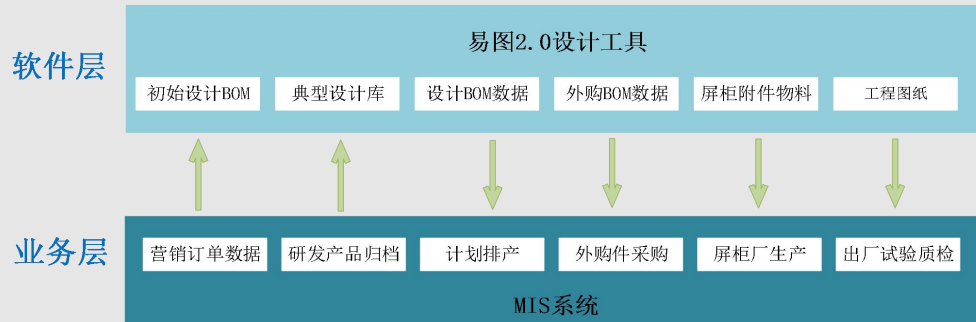
#### 案例：开发数字化绘图工具，支撑智能化设计

### **Case: Developing a Digital Drawing Tool to Support Intelligent Design**

围绕产品组屏设计数字化转型，公司设计院基于 Epanl 设计软件自主开发易图 2.0 绘图工具，采用基于设备模型的数字化电气设计，设计工作从 CAD（计算机辅助设计）向 CAE（计算机辅助工程）演进，开发图纸接线表自动生成等一百余项功能，实现图纸规范化顺序校审，原理图典型错误自动校核，设计质量由“人控”向“机控”转变，已覆盖 99% 的工程设计图纸，绘图效率提高 42%，图纸正确率提高 65%，屏柜生产效率提高 13%。在数据共享及生产协同方面，易图 2.0 绘图工具实现图纸材料表、SAP、BOM、MES 数据同源，保障图纸、系统数据一致性，实现数据纠错、复用、分析的功能。将设计图纸关键信息数据结构化处理，导入 SAP 形成准确的 BOM 结构，支持 APS 高级排产。同时易图 2.0 软件实现了从营销订单、设计 BOM、外购 BOM 数据、屏柜附件物料、工程图纸等业务的数据共享和对口分发，贯通了图纸设计的整体链条系统，实现了产品组屏设计全过程的数字化转型。

To promote the digital transformation of product group screen design, the company's design institute independently developed the EasyCAD 2.0 drawing tool based on Epanl design software. This tool adopts digital electrical design based on equipment models, evolving the design work from CAD (Computer-Aided Design) to CAE (Computer-Aided Engineering). More than 100 functions were developed, including the automatic generation of wiring diagrams and standardized sequential review of drawings. Typical errors in schematic diagrams are automatically checked, shifting design quality from "human-controlled" to "machine-controlled." This system has covered 99% of engineering design drawings, resulting in a 42% increase in drawing efficiency, a 65% improvement in drawing accuracy, and a 13% enhancement in cabinet production efficiency. In terms of data sharing and production collaboration, the EasyCAD 2.0 drawing tool achieves synchronization of the drawing material list, SAP, BOM, and MES data, ensuring the consistency of drawings and system data while enabling functions such as data correction, reuse, and analysis. Key information from the design drawings is processed and imported into SAP to form an accurate BOM structure, supporting advanced production scheduling in APS. Additionally,

EasyCAD 2.0 software enables data sharing and distribution across marketing orders, design BOM, purchased BOM data, screen cabinet accessory materials, engineering drawings, and other business data, seamlessly connecting the overall chain system of drawing design and achieving the digital transformation of the entire product screen design process.



软件层	Software level
易图 2.0 设计工具	EasyCAD 2.0 Design Tool
初始设计 BOM	Initial design BOM
典型设计库	Typical design library
设计 BOM 数据	Design BOM data
外购 BOM 数据	External BOM data
屏柜附件物料	Screen cabinet accessories
工程图纸	Engineering drawings
业务层	Business level
营销订单数据	Marketing order data
研发产品归档	Research and development product archiving
计划排产	Planning and scheduling
外购件采购	Purchased parts procurement
屏柜厂生产	Screen cabinet factory production
出厂试验质检	Factory test quality inspection
MIS 系统	MIS system

**电气符号库**

手动绘制 >>> 库中选择

标准化

**材料表**

人工统计 >>> 一键生成

自动化

**技术参数**

一致性审核 >>> 原理性审核

直观化

电气符号库	Electrical Symbol Library
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手动绘制	Manual drawing
库中选择	Select from the library
<b>标准化</b>	<b>Standardization</b>
<b>材料表</b>	<b>Bill of Material</b>
人工统计	Manual counting
一键生成	One-click generation
<b>自动化</b>	<b>Automation</b>
<b>技术参数</b>	<b>Technical Parameters</b>
一致性审核	Consistency audit
原理性审核	Principle review
<b>直观化</b>	<b>Visualization</b>

## (二) 安全生产保障

### (II) Work Safety Guarantee

南瑞继保严格遵守《中华人民共和国安全生产法》等法规，始终坚持“安全第一、预防为主、综合治理”的安全生产总方针，秉持“生产与安全并重，以人为本”的安全理念，在体系机制建设中充分融入安全需求，聚焦安全风险管控，严格明晰职能分配，确保安全责任落实到位，综合运用管理和技术手段，强化全过程安全风险管控，实现作业风险可控、能控、在控，健全各层级安全责任体系、安全生产保证体系和监督体系，持续提升本质安全管理水平。我们不断优化安全管理体系，通过深入的教育培训，使安全理念深入人心，营造浓厚的安全文化氛围。三年内未发生一起一般及以上安全生产事故。

NARI-Relays strictly complies with the laws and regulations such as the "Work Safety Law of the People's Republic of China". It always adheres to the work safety policy of "safety first, prevention-oriented, comprehensive governance." The Company upholds the safety concept of "equal emphasis on production and safety, people first", fully integrates safety requirements in the system and mechanism construction, and focuses on safety risk control. It clarifies functional allocation strictly and ensures that safety responsibilities are implemented. NARI-Relays comprehensively uses management and technical means, strengthens comprehensive safety risk control throughout the process, and achieves controllable, manageable, and controlled operational risks. The Company improves the safety responsibility system, work safety guarantee system, and supervision system at all levels, continuously enhancing the level of intrinsic safety management. We continuously optimize our

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safety management system, instill safety concepts through in-depth education and training, and create a strong safety culture atmosphere. No general and above work safety accidents occurred within three years.

### 数读继保

#### Data on NARI-Relays

- 安全培训 40 次  
Provided safety training for 40 times
- 安全培训 14589 人次  
Provided safety training for 14,589 people
- 安全培训总时长 29808h  
The total duration of safety training is 29,808 hours.

## 1. 夯实安全管理

### 1. Strengthen Safety Management

南瑞继保不断完善安全生产体系建设，于 2022 年获得 ISO45001 认证证书，2023 年通过年度监督审查，依托 ISO45001 体系，建立严格的安全管理制度，实施全员安全生产责任制，压实安全主体责任。营造积极的安全文化氛围，鼓励员工参与安全管理，形成全员关注安全的良好风气。持续推进双重预防机制，从严从实提升安全质量，构建一个更加安全、稳定的工作环境。

NARI-Relays continues to enhance its safety production system and obtained ISO 45001 certification in 2022. In 2023, it successfully passed the annual supervision review. Leveraging the ISO 45001 framework, NARI has established a rigorous safety management system, implemented a comprehensive safety production responsibility system, and reinforced safety accountability. A positive safety culture is cultivated, encouraging employees to engage in safety management and fostering an environment where everyone prioritizes safety. The dual prevention mechanism is continually promoted, ensuring strict improvements in safety, and building a safer, more stable working environment.

➤ 顺利通过江苏省应急厅“安全标准化二级”评审，同时完成国网安全标准化

达标创建，评定为一级达标企业。

Successfully passed the Jiangsu Provincial Emergency Management Department's "Safety Standardization Level 2" review, while also completing the establishment of safety standardization compliance for State Grid, and was rated as a first-level compliant enterprise.

- 修订危险作业审批、变更管理等 21 项制度，规范特种作业审批流程，完善特种施工作业的过程监督，夯实安全管理工作基础。

Revised 21 systems, including approval of hazardous operations and change management, standardized the approval process for special operations, improved process supervision of special construction operations, and solidified the foundation of safety management work.

- 上线安全管理 APP，集成“区域扫码检查、全员随手拍、外来施工人员安全准入”等受众广、移动操作要求高的应用，提高安全管理便捷性和有效性。

Launched a safety management APP that integrates widely applicable and high-demand mobile features, such as "area QR code inspection, instant photo reporting by all staff, and safety access for external construction workers," enhancing the convenience and effectiveness of safety management.

- 加强外包分包管理，梳理外包单位安全协议，严格资信审查和动态管理。

Strengthened the management of outsourcing and subcontracting by reviewing safety agreements with outsourcing units and conducting strict credit checks and dynamic management.

- 组织全员学习习近平总书记关于安全生产重要论述，结合事故案例开展全员安全警示教育，以案为戒，让安全观念入脑入心。

Organized all staff to study General Secretary Xi Jinping's important expositions on work safety, using accident cases to conduct comprehensive safety warning education, instilling safety awareness deeply into their minds and hearts.

- 召开安委会、安全生产监督等会议，总结阶段工作，落实安全生产工作部署。

Convened meetings of the safety commission and safety production supervision

to summarize work progress and implement safety work deployments.

## 2. 恪守安全运行

### 2. Adhere to safe operation

南瑞继保全面建立风险辨识、预警、管控工作机制，将风险控制在隐患形成之前，并通过隐患排查，及时找出风险控制过程中可能出现的缺失或漏洞，把隐患消灭在事故发生之前。

NARI-Relays has established a comprehensive mechanism for risk identification, early warning, and control, aiming to manage risks before hazards arise. Through hazard inspections, any deficiencies or loopholes in the risk control process are promptly identified, allowing for the elimination of hazards before accidents occur.

#### 风险识别

##### Risk Identification

- 编制修订安全操作规程汇编、安全风险辨识管控等制度，行成长效机制。

Developed and revised a compilation of safe operating procedures and established systems for identifying and controlling safety risks, creating a sustainable implementation mechanism.

- 修订《企业安全生产风险辨识与分级管控情况报告》，梳理生产全过程风险，辨识出6项低风险，4项一般风险，4项较大风险，逐项制定管控措施，按照不同安全风险等级实施分级管控，将安全风险管控责任逐一落实到企业、车间、班组和岗位。

Revised the "Report on Identification and Graded Control of Enterprise Work Safety Risks", clarified risks throughout the production process, identified 6 low-risk items, 4 moderate-risk items, and 4 high-risk items, developed control measures for each item, implemented graded control according to different safety risk levels, and ensured that safety risk control responsibilities were implemented at the enterprise, workshop, team, and position levels.

#### 隐患排查

##### Potential Hazard Investigation

- 修订《隐患排查治理制度》，加入隐患判定标准，规范安全隐患排查治理

工作。

Revised the " Potential Danger Investigation and Control System," adding hidden danger determination criteria to standardize the work of investigating and controlling safety hazards.

- 组织“隐患随手拍”活动，营造“人人查隐患，处处讲安全”的安全氛围，收集有效隐患 80 余条。

Organized the "Report Potential Hazards on the Go" activity to create a safety atmosphere of "everyone checks for hazards, everywhere talks about safety," and collected more than 80 effective potential hazards.

- 公司安全监察队伍开展工程现场检查，完成 263 次检查，发现问题 1545 个，三级风险到岗到位 22 次。

The company's safety inspection team conducted on-site inspections at construction sites, completing 263 inspections, identifying 1,545 issues, and ensuring that safety measures for high-risk areas were implemented 22 times.

- 组织开展二次设备隐患专项排查，推进重大事故隐患排查整治 2023 行动，进行了 8 轮督导检查，建立安全隐患问题台账，逐项落实整改措施。

The organization carried out a special inspection on hidden dangers of secondary equipment, promoted the 2023 Action Plan for the investigation and rectification of major accident hazards, conducted 8 rounds of supervision and inspection, established a safety hazard issue register, and implemented rectification measures item by item.

## 应急管理

### Emergency Management

- 修订《应急准备和响应控制程序》、《应急装备、物资管理制度》等文件，明确各层级职责。

Revised documents such as the Emergency Preparedness and Response Control Procedures and the Emergency Equipment and Material Management System to clarify responsibilities at all levels.

- 制定 1 项综合应急预案，12 项专项应急预案和 2 项现场处置方案；

Developed one comprehensive emergency plan, 12 specific emergency plans, and two on-site disposal plans.

- 结合生产经营实际，2023 年共开展 9 次应急演练，包括危化品、特种设备等专项演练，确保突发事件快速响应和精准处置。

Based on the actual production and operation, a total of 9 emergency drills were conducted in 2023, including special drills for hazardous chemicals and special equipment, to ensure rapid response and precise handling of emergencies.

- 公司建立应急队伍，定期开展应急技能培训，常态化进行实战演练，科学评估演练成效，总结典型应急经验，不断优化应急流程。

The Company established an emergency response team, regularly conducted emergency skills training, normalized practical drills, scientifically evaluated the effectiveness of drills, summarized typical emergency experiences, and continuously optimized emergency procedures.

#### 案例：公司开展 2023 年消防安全疏散及灭火演习活动

#### Case: NARI-Relays Conducts Fire Safety Evacuation and Fire Drill Activities in 2023

为提升员工消防安全意识，强化应对火灾等突发情况的能力，确保生命财产安全，公司每年都会进行多次消防培训和演练，邀请救援支队的专业教官为参与人员进行生动详实的消防安全知识讲座，通过剖析国内外典型火灾案例，深入浅出地讲解了火灾的成因、危害、预防措施以及初期火情的正确处置方法，同时对各类消防设施设备的功能、使用方法及维护保养要点进行了详细介绍，使大家对消防安全有了全面、系统的认识。理论培训结束后，紧张而有序的消防应急演练拉开帷幕。演练模拟了公共场所突发火灾的情境，包括火源发现、报警、初期扑救、疏散引导、伤员救助等多个环节。

To enhance employees' awareness of fire safety, strengthen their ability to respond to emergencies such as fires, and ensure the safety of lives and property, the Company conducts multiple fire safety training sessions and drills each year. Professional instructors from the rescue brigade are invited to provide vivid and detailed lectures

on fire safety knowledge. They analyze typical fire cases from home and abroad, explaining the causes, hazards, preventive measures of fires, and the correct methods for dealing with initial fire situations in a clear and accessible manner. Detailed introductions are also given on the functions, usage methods, and maintenance points of various firefighting facilities and equipment, enabling everyone to gain a comprehensive and systematic understanding of fire safety. After the theoretical training, the tense and orderly fire emergency drill kicked off. The drill simulated a sudden fire scenario in a public place, encompassing various stages, including fire discovery, alarm, initial firefighting, evacuation guidance, and rescue of the injured. 参与者们按照预设角色，迅速进入状态，各司其职，有条不紊地展开行动。 Participants quickly assumed their assigned roles, each performing their duties smoothly and methodically.





### 3.维护信息安全

#### 3. Maintain Information Security

南瑞继保严格遵守《中华人民共和国网络安全法》《中华人民共和国数据安全法》《中华人民共和国个人信息保护法》等法律法规，通过了 ISO27001 信息安全管理体系和两化融合等相关认证，制定了《访问控制管理程序》《办公环境安全管理程序》《数据安全程序》等 24 个信息安全体系文件，并成立了信息安全委员会，设立网络安全分管领导、职能管理部门、运维保障部门及联络员，形成责任明细、分工明确、技管结合的信息安全管理体系，逐步简化权限及安全控制规则，并强调规则的执行，有效落实信息安全规划、实施和监督检查等内外部审查工作。

NARI-Relays strictly complies with laws and regulations such as the Cybersecurity Law of the People's Republic of China, the Data Security Law of the People's Republic of China, and the Personal Information Protection Law of the People's Republic of China. It has passed the ISO27001 information security management system and other relevant certifications. It has formulated 24 information security

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system documents, including the "Access Control Management Procedure", "Office Environment Security Management Procedure", and "Data Security Management Procedure". An Information Security Committee has been established, along with network security leadership, functional management department, operation and maintenance support department, and liaison officers. This structure forms a clear division of responsibilities and labor, combining technology and management within the information security management system. The Company gradually simplifies permissions and security control rules, emphasizes the execution of these rules, and effectively implements information security planning, implementation, and supervision, while conducting internal and external reviews.

公司近些年逐步加大信息系统安全建设，提高系统信息安全评估的覆盖率，由 2020 年的 80%提高至 2023 年的 95%，完成了多网络区域和部分业务系统的信息安全评估，包含办公区、设备网区、工控区、研发区等网络区域全覆盖，实现终端安全的杀毒和网络准入的全覆盖，审核并通过了 1 个等保三级和 4 个等保二级的综合系统等保测评。同时每年公司针对当前网络安全架构，以多种形式包含访谈、检查、记录、安全工具或第三方测评机构，从合规建设、内部审计、渗透测试、攻防演练等多维度进行网络安全防护有效性验证。

In recent years, the Company has increased its investment in information system security construction, raising the coverage of system information security assessments from 80% in 2020 to 95% in 2023. It has completed information security assessments across multiple network areas and parts of business systems, achieving full coverage in network areas such as the office, equipment network, industrial control, and research and development areas. The Company has also established comprehensive endpoint security for antivirus and network access. It has successfully reviewed and passed one level-3 security assessment and four level-2 security assessments for comprehensive systems. Each year, the Company conducts various forms of validation on its current network security architecture, including interviews, inspections, records, security tools, and assessments from third-party organizations. This multi-dimensional approach verifies the effectiveness of network security protection through compliance construction, internal audits, penetration testing, and

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attack-defense drills.

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## 见证荣耀

### Witness the Glory

- 公司 2023 年度信息化建设取得部分相关荣誉：

Some honors obtained in information construction in 2023:

2023 年度被江苏省政府授予“江苏省省长质量奖”

Awarded the "Jiangsu Governor's Quality Award" by the Jiangsu Provincial Government in 2023.

2023 年度被国家工信部等五部门评为“国家智能制造示范工厂”

Recognized as a "National Intelligent Manufacturing Demonstration Factory" by the Ministry of Industry and Information Technology and four other departments in 2023.

2023 年度可信云用户最佳实践

Best Practices for Trusted Cloud Users in 2023.

2023 年度两化融合标准应用先进单位

Designated as an Advanced Unit in the Application of Integration of Informatization and Industrialization Standards in 2023.

- 信息中心部门累计获得以下相关认证：

The Information Center Department has obtained the following relevant certifications:

- ◇ 网络：CCIE（思科认证网络专家）2 人

Network: 2 CCIE (Cisco Certified Internetwork Expert)

HCNP（华为中级网络工程师）2 人

2 HCNP (Huawei Certified Network Professional)

- ◇ 信息安全：CISP（注册信息安全专业人员）4 人

Information Security: 4 CISP (Certified Information Security Professional)

CCSC（网络安全能力认证）3人

3 CCSC (Cybersecurity Capability Certification)

CISAW（信息安全保障人员认证）2人

2 CISAW (Certified Information Security Assurance Worker)

◇ 系统：RHCE（红帽认证工程师）2人

System: 2 RHCE (Red Hat Certified Engineer)

VCP（VMware 虚拟化认证工程师）3人

3 VCP (VMware Certified Professional)

OCP（Oracle 认证工程师）1人

1 OCP (Oracle Certified Professional)

阿里云认证 2人

2 Alibaba Cloud Certifications

◇ 管理类：高级信息系统项目管理师 3人

Management: 3 Senior Information System Project Managers

PMP（项目管理）1人

1 PMP (Project Management Professional)

ITIL4 认证 2人

2 ITIL4 Certifications

ITSS 认证 1人

1 ITSS Certification

➤ **提升技术防护：**建成较为完善的信息安全防护系统，网络分级分层管控，采用了防火墙、IPS、上网行为管理、隔离装置等 10 台（套）设备防护网络边界，使用 WAF、态势感知、动态应用防护等 5 台（套）设备保护应用层安全，并采用 DLP 数据防泄漏、水印、摆渡系统等 4 台（套）设备加固数据安全防护，结合数据流转监测系统和 API 智能分析管理系统 2 台（套）验证安全设备防护策略有效性，保证业务信息系统的机密性、完整性、可用性和真实性。

**Enhancing technical protection:** NARI-Relays has established a relatively

complete information security protection system, implementing network hierarchical control. The Company uses 10 sets of devices such as firewalls, IPS, web behavior management, and isolation devices to protect the network boundary. Additionally, it utilizes 5 sets of devices like WAF, situational awareness, and dynamic application protection to safeguard application layer security. NARI-Relays employs 4 sets of devices, including DLP data leakage prevention, watermarking, and shuttle systems, to strengthen data security protection. The effectiveness of security equipment protection strategies is verified through 2 sets of data flow monitoring systems and API intelligent analysis and management systems, ensuring the confidentiality, integrity, availability, and authenticity of business information systems.

- **护航数据安全：**公司相关业务系统数据放于管理信息服务区，边界通过防火墙、堡垒机、摆渡、云桌面等访问控制设备限制访问业务相关生产数据，定期开展容灾备份及应急预案并进行演练，目前累计年均执行 40 份应急预案和演练报告，保证信息系统预警、应急处置和恢复能力，最大限度地降低系统技术风险，保障业务的连续稳定运行，及时发现并完善预案。

**Safeguarding data security:** NARI-Relays' related business system data is stored in the management information service area, with access restricted by access control devices such as firewalls, bastion hosts, shuttles, and cloud desktops to limit access to business-related production data. The Company regularly conducts disaster recovery backups and emergency drills, currently executing an average of 40 emergency plans and drill reports annually. This ensures the information system's early warning, emergency response, and recovery capabilities, minimizes technical risks, and guarantees the continuous and stable operation of the business while promptly identifying and improving plans.

- **强化人员管理：**根据不同岗位每年签订网络安全承诺书，明确告知注意事项，今年累计约 6000 份网络安全承诺书，每年定期开展全员网络安全

宣贯培训，累计已发布 15 个视频课程，观看学习人数达 4 万人次，不定期开展网络安全知识竞赛、在线答题、钓鱼邮件演练等活动年均 5 项，以提高员工网络安全意识。

**Enhancing personnel management:** NARI-Relays requires employees in different positions to sign cybersecurity commitment letters annually, clearly informing them about precautions. Approximately 6,000 cybersecurity commitment letters have been signed this year. The Company regularly conducts cybersecurity training for all employees, with a total of 15 video courses released so far, accumulating 40,000 views. NARI-Relays organizes around 5 activities annually, including cybersecurity knowledge competitions, online quizzes, and phishing email drills, to enhance employees' awareness of cybersecurity.

- **客户隐私保密：**公司在 ISO27001 信息安全管理体系中制定了相关的规章制度《ISMSP02 资产安全管理程序》，定义了公司与客户的电子数据资产、纸质书面资产、硬件与设施资产的安全分级策略和使用管理规范，以对不同安全级别的资产采取不同的管理手段，保障南瑞继保和客户的信息安全。各中心（部门）针对电子数据与纸质书面资产进行安全分级，公司人员对不同保密级别的电子数据与纸质书面资产，包括接触到的各种客户信息、客户纸质文件等，在访问、分发、保管、作废时，均要遵守公司《ISMSP02 资产安全管理程序》的规定，确保顾客资产的安全性和保密性。

**Customer privacy protection:** NARI-Relays has established relevant regulations in the ISO27001 Information Security Management System, specifically the "ISMSP02 Asset Security Management Procedure". This defines the security classification strategy and usage management specifications for electronic data assets, paper-based assets, hardware, and facility assets of both the Company and its customers. Different management measures are taken for assets of varying security levels to ensure the information security of NARI-Relays and its customers. Each center

(department) classifies electronic data and paper-based assets according to security levels. Its personnel must comply with the Asset Security Management Procedure (ISMSP02) when accessing, distributing, storing, and disposing of electronic data and paper-based assets of different confidentiality levels, including various customer information and customer paper documents, to ensure the security and confidentiality of customer assets.

### 案例：网络安全态势感知系统部署案例

#### Case: Deployment of Network Security Situational Awareness System

2023 年按照公司网络安全整体建设方案，在完成边界基础安全设备的建设后，通过部署奇安信威胁态势感知系统（天眼）针对内外网流量进行全量检测分析和记录，聚焦内网威胁检测和响应，加强公司网络边界和业务系统的安全性与稳定性。

In 2023, according to the overall company network security construction plan, after completing the construction of basic security equipment at the network boundary, NARI-Relays deployed the QiAnxin Threat Intelligence System (Sky Eye) to conduct comprehensive detection, analysis, and recording of internal and external network traffic. This initiative focused on internal threat detection and response, enhancing the security and stability of the company's network boundary and business systems.

整套系统架构有分析平台和数据采集探针平台，主要包含以下组成部分：数据采集与存储、数据分析与挖掘、状态监测与评估、威胁情报共享与协同、安全响应与应对。这些部分协同工作，形成一个闭环的态势感知系统。

The entire system architecture consists of an analysis platform and a data collection probe platform, including the following components: data collection and storage, data analysis and mining, status monitoring and assessment, threat intelligence sharing and collaboration, and security response and countermeasures. These components work together to form a closed-loop situational awareness system.

主要功能包含：

Main functions include:

- 高级威胁检测：通过威胁情报、文件虚拟执行、智能规则引擎、机器学习等技术，可以检测和发现高级网络攻击和新型网络攻击，涵盖：APT 攻击、勒索软件、WEB 攻击、远控木马、僵尸网络、窃密木马、间谍软件、网络蠕虫、邮件钓鱼等高级攻击，并基于可视化技术，清晰的展示网络中的威胁。

Advanced Threat Detection: Utilizing technologies such as threat intelligence, file sandboxing, intelligent rule engines, and machine learning, the system can detect and identify advanced and novel network attacks. These include APT attacks, ransomware, web attacks, remote access Trojans, botnets, data-stealing Trojans, spyware, network worms, and phishing emails. Visualization technologies provide a clear display of threats within the network.

- 异常行为检测：基于网络流量数据，运用大数据分析和机器学习技术建立网络异常行为检测模型，内置非常规服务分析、登录行为分析、邮件行为分析、数据行为分析等数种场景，实现对新型攻击和内部违规的检测和发现。

Anomaly Detection: Based on network traffic data, the system employs big data analysis and machine learning to build a network anomaly detection model. This includes various scenarios such as unconventional service analysis, login behavior analysis, email behavior analysis, and data behavior analysis, enabling the detection of new attacks and internal violations.

- 告警响应处置：系统提供攻击告警的列表、统计、查询、调查等功能，且基于 ATT&CK 标签分析告警的能力，支持与内网部署的天擎终端 EDR、防火墙和第三方网络安全设备联动，并执行自动化编排处置，帮助信息中心安全运营人员快速研判和处置告警事件。

Alarm Response and Handling: The system offers functionalities for listing, statistical analysis, querying, and investigating attack alarms. It can analyze alarms based on ATT&CK tags and supports linkage with in-house deployed Tianqing terminal EDR, firewalls, and third-party network security devices. Automated orchestration and handling of alerts assist security operations

personnel in quickly assessing and addressing alarm events.

- 攻击回溯分析：通过系统全包取证分析功能，并提供线索可视化图谱拓线分析能力（威胁狩猎）能呈现每一次攻击的完成过程，帮助我们对网络攻击进行回溯和深度分析。

Attack Backtracking Analysis: The system's comprehensive forensic analysis capabilities provide visualization of clues and topology analysis of the attack process (threat hunting), presenting the complete attack sequence and enabling in-depth tracing and analysis of network attacks.

价值与收益：

Value and Benefits:

- 高级威胁的精准检测：能快速并精准发现网络威胁攻击，准确率高，误报率低。

Advanced Threat Detection: The system rapidly and accurately identifies network threats, achieving high accuracy with a low false positive rate.

- 重大安全事件的快速响应：基于威胁情报的上下文，可以帮助我们发现、研判和处置重大安全事件如：永恒之蓝、APT 事件等。

Rapid Response to Major Security Incidents: Utilizing threat intelligence context, the system aids in identifying, assessing, and responding to significant security incidents, such as the Eternal Blue and APT events.

- 网络攻击的回溯和分析：通过还原和存储网络流量的元数据，可以帮助我们回溯已经发生网络攻击行为，分析攻击路径、受感染面和信息泄露状况。

Retrospection and Analysis of Network Attacks: By reconstructing and storing the metadata of network traffic, it facilitates the tracing of past network attack activities, analyzing attack paths, infection extent, and information leakage.

- 合规要求和护网支撑：网络态势感知系统部署满足了新等保 2.0 对网络攻击检测和分析要求，特别是针对新型网络攻击和 APT 攻击。同时支撑我司每年至少 5 次网络攻防演练和重保活动，极大提高网络安全防护效率。

Compliance Requirements and Network Defense Support: The deployment of the network situational awareness system meets the new security protection 2.0 requirements for network attack detection and analysis, particularly concerning new types of network attacks and APT threats. Additionally, it supports the company's network attack and defense drills and security activities at least five times a year, significantly improving the efficiency of network security protection.



### (三) 优质产品服务

#### (III) Quality Products and Services

南瑞继保始终秉持初心，坚持不懈，凭借卓越的技术实力、稳固可靠的产品质量以及客户为先的优质服务，全方位满足客户多样化需求。我们精心策划并统筹全过程质量管理体系和客户服务管理体系顶层规划，持续提升产品质量和服务水准，确保每一个细节都落实到位，旨在以更高标准满足市场需求，进一步提升客户满意度，赢得客户的长期信赖与支持。

NARI-Relays consistently adheres to its original mission and perseveres in its efforts to meet the diverse needs of customers through outstanding technical expertise, solid and reliable product quality, and a customer-first approach to high-quality service. The Company meticulously plans and coordinates the top-level design of its

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comprehensive quality management system and customer service management system. This continuous improvement process enhances product quality and service standards, ensuring that every detail is executed flawlessly. The goal is to meet market demands with higher standards, further elevate customer satisfaction, and earn long-term trust and support from clients.

## 1. 强化品质保障

### 1. Enhance Quality Assurance

南瑞继保视安全为企业的生命线，坚决树立覆盖全员、贯穿全业务流程的“大安全”理念，确保安全生产的长效机制稳固建立。坚决遵循《中华人民共和国产品质量法》、《中华人民共和国环境保护法》、《中华人民共和国大气污染防治法》等法律法规，构建质量、安全、环境和谐共生的优质企业。南瑞继保不断健全以卓越绩效为框架，质量管理体系为基础，环境、职业健康安全、信息安全、能源管理、社会责任融合运行的管理体系，形成以“全员质量、预防为先、科学管理”为内涵的质量安全文化理念，指导生产运营过程中的质量安全管控，以优质可靠的产品和服务，守护电力系统安全稳定运行。

NARI-Relays regards safety as the lifeline of the enterprise, firmly establishing a "comprehensive safety" concept that encompasses all employees and permeates all business processes. This commitment ensures the solid establishment of a long-term mechanism for safe production. The Company resolutely adheres to laws and regulations such as the Product Quality Law of the People's Republic of China, the Environmental Protection Law of the People's Republic of China, and the Air Pollution Prevention and Control Law of the People's Republic of China, aiming to build a high-quality enterprise that harmoniously integrates quality, safety, and environmental protection. NARI-Relays continuously enhances its management system, which is framed by outstanding performance and built upon a robust quality management system. This system integrates environmental management, occupational health and safety, information security, energy management, and social responsibility. It has fostered a quality and safety culture characterized by "full staff quality, prevention first, and scientific management". This culture guides quality and safety control throughout the production and operation processes, ensuring the safe and

stable operation of the power system through high-quality and reliable products and services.

## 数读继保

### Data on NARI-Relays

- 关键绩效指标

#### Key Performance Indicators

指标名称 Indicators	2021 年 2021	2022 年 2022	2023 年 2023
产品出厂一次合格率 <b>First-pass Yield of Product</b> (=屏柜试验合格率*屏柜终检合格率*单装置 试验合格率*单装置终检合格率) (=Cabinet test pass rate * Cabinet final inspection pass rate * Single unit test pass rate * Single unit final inspection pass rate)	95.3%	96.4%	97.0%
现场装置运行故障率 <b>On-site Installation Failure Rate</b> (=年度现场异常装置数量/现场装置运行存量 *100%) (=Annual number of on-site abnormal devices/On-site device operating stock*100%)	0.240%	0.196%	0.194%

## 见证荣耀

### Witness the Glory

- 江苏省省长质量奖

Jiangsu Provincial Governor's Quality Award

- 江苏省质量标杆

Jiangsu Province Quality Benchmark

- 江苏省质量管理先进单位

Advanced Quality Management Unit in Jiangsu Province

- 江苏省首席质量官职业技能竞赛二等奖  
Second Prize in the Jiangsu Province Chief Quality Officer Professional Skills Competition
- 企业首席质量官质量变革创新典型案例 50 佳  
Top 50 Best Cases of Quality Transformation and Innovation for Chief Quality Officers in Enterprises
- 江苏省质量协会 QC 成果三等奖  
Third Prize for QC Achievement of Jiangsu Quality Association

➤ **提升质量保障水平**

**Improve the Quality Assurance Level**

- 强化供应链质量导向，完成 78 家供方现场量化审核和辅导，着力实施新型储能工程新技术、新工艺质量监督，有效促进供方产品质量和内控能力提升。

NARI Relays strengthens the quality orientation of the supply chain. It has completed on-site quantitative audits and guidance for 78 suppliers, focusing on implementing quality supervision of new energy storage projects with new technologies and processes, effectively promoting the improvement of supplier product quality and internal control capabilities.

- 推进质量管控数字化，建立质量健康模型，细化产品线质量监控，提高配套件和外购件追溯准确性，加强问题预警、冻结和闭环处理，促进产品质量持续稳定提升。

NARI-Relays promotes the digitization of quality control. It has established a quality health model, refined product line quality monitoring, improved the accuracy of traceability for supporting parts and purchased parts, and strengthened problem early warning, freezing, and closed-loop processing. This has promoted continuous and stable improvement in product quality.

➤ **强化质量能力建设**

**Enhance Capacity Building for Quality**

- 组织供应商质量管理、质量检验知识等 7 次内外部培训，举办质量检验技能竞赛、耐压资格认证技能竞赛，继续开展金点子活动，提升全员质量意识和质量保障能力。

NARI-Relays organizes training. It has conducted 7 internal and external training sessions on supplier quality management and quality inspection knowledge, held quality inspection skills competitions and pressure resistance qualification certification skills competitions, and continued to carry out brainstorming activities to enhance the overall quality awareness and quality assurance capabilities of all staff.

➤ 产品标识管理

**Product Identification Management**

公司制定企业标准《Q\_NR K401-2022 产品标牌》和《Q\_NR K402-2019 标志和商标》，分别规定了公司产品标牌（包括产品铭牌和合格证）的格式、内容、技术要求、使用要求和检验规则，以及公司的标志（商标）的功能、基本要求、制定程序、标志的构成和应用方法，并给出了标志（商标）的基本图形。参照 ISO 3864 标准，在产品技术说明书前言部分有关于安全相关的警示信息，根据可能产生的危险程度，通过不同的图形符号、颜色和文字信息进行区分，从而消除在操作相关产品时可能发生的人身伤害或设备损害的潜在风险。

NARI-Relays has established corporate standards, i.e. "Product Labels" (Q\_NR K401-2022) and "Logos and Trademarks" (Q\_NR K402-2019), which specify the format, content, technical requirements, usage requirements, and inspection rules for the company's product labels (including product nameplates and certificates of conformity). These standards also outline the functions, basic requirements, development procedures, composition, and application methods of the company's logos (trademarks), along with their basic graphics. In accordance with the ISO 3864 standard, NARI-Relays includes safety-related warning information in the preface of the product technical manual. Different graphic symbols, colors, and text information are used to distinguish the potential risks of personal injury or equipment damage that may occur during the operation of the product, based on the severity of the danger.

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**案例：建立综合质量健康模型**

**Case: Establishing a Comprehensive Quality Health Model**

➤ **要解决的问题**

**Issues to Be Solved:**

公司产品系列多，质量管理过程长，描述质量情况主要靠几个主过程指标，主要问题、现场事故等通过单个事件体现，对整体质量的现状阐述和趋势把握不够清晰。

NARI-Relays has a wide range of product series and a lengthy quality management process. The description of the quality situation mainly relies on several key process indicators, while major issues and on-site incidents are reflected through individual events. The current status and trend of overall quality are not clearly articulated.

➤ **解决思路**

**Solution Approach:**

在监控指标的基础上，识别影响质量感知的主要因素，建立“质量健康模型”，通过标准化、归一化的算法，量化各维度健康值，形成一个体现公司整体质量情况的“综合质量态势”指标，形成统一抓手，自上而下把握整体质量情况和趋势。

Based on monitoring indicators, NARI-Relays identified the main factors affecting quality perception and established a "quality health model". By using standardized and normalized algorithms, the Company quantified the health values of each dimension, forming a "comprehensive quality situation" index that reflects the overall quality status. This unified approach allows for a top-down grasp of the overall quality situation and trends.

➤ **改进成效**

**Improvement Effectiveness**

(1) 从“关键指标、现场事故、主要问题、运行存量”四个维度，建立质量健康模型，分别关注整体过程质量、外部（用户）感知质量、内部感知质量和未来趋势变化，并通过控制图、标准赋值等方法将指标、事件分别量化成标准值。

(1) NARI-Relays established a quality health model from four dimensions: "key indicators, on-site incidents, major issues, and operational stock". This model focuses on overall process quality, external (user) perceived quality, internal perceived quality, and future trend changes. Indicators and events are quantified into standard values using control charts, standard assignments, and other methods.



质量健康模型	Quality Health Model
<b>关键指标</b>	<b>Key indicators</b>
整体过程质量	Overall process quality
<b>现场事故</b>	<b>On-site accident</b>
外部感知质量	External perception quality
<b>主要问题</b>	<b>Main issues</b>
内部感知质量	Internal perception quality
<b>运行存量</b>	<b>Operational stock</b>
未来趋势变化	Future trend change

(2) 将质量健康维度按权重归算成“综合质量态势”，建立了质量看板，实现用一个指标衡量公司整体质量水平和趋势，而且更加关注工程现场和风险因素，强化预测管理。

(2) The quality health dimensions are recalibrated into a "comprehensive quality situation" based on their weights, establishing a quality dashboard that measures the overall quality level and trends of the Company with a single indicator. This approach places greater emphasis on engineering sites and risk factors, thereby enhancing predictive management.



## 2.优化客户服务

### 2. Optimize customer service

南瑞继保秉持“用心服务，为用户创造价值”的服务理念，依托工程应用APP、MIS3.0、微客服等智能信息化平台，在市场拓展、服务交付过程中，全面践行“每一件产品都让用户放心，每一个工程都让用户满意”的服务目标。公司推行顾客服务“首问责任制”，建立一体化服务支持体系，开通+86-025-52107703 全球服务热线，让顾客感受到南瑞继保 7\*24 小时快速响应的优质服务体验。全年无客户信息泄密事件及相关纠纷诉讼；全年无书面投诉、抗议、索赔事件。

NARI-Relays adheres to the service philosophy of "Dedicated service to create value for customers". Leveraging intelligent information platforms such as the engineering application APP, MIS 3.0, and WeChat customer service, we fully implement the service goal of "ensuring that every product gives users peace of mind and that every project meets user satisfaction" during market expansion and service delivery. The Company enforces a "first responsibility system" for customer service, establishing an integrated support system. A global service hotline at +86-025-52107703 is available, allowing customers to experience NARI-Relays' high-quality service with a rapid response available 24/7. Throughout the year, there have been no incidents of customer information leakage or related disputes; no written complaints, protests, or claims were reported.

## 数读继保

### Data on NARI-Relays

- 公司成功回访 9136 次

The Company successfully conducted 9,136 follow-up visits.

- 回访满意率 9.92 分（10 分制）

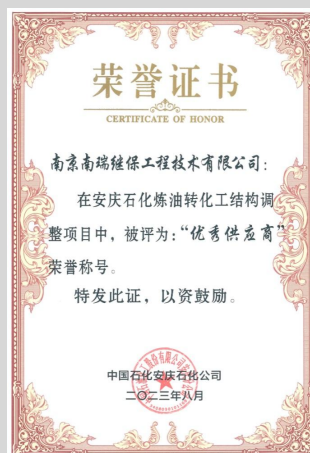
The customer satisfaction rate for these visits is 9.92 out of 10.

- 客户投诉解决率 100%

The customer complaint resolution rate stands at 100%.

## 见证荣耀

### Witness the Glory



全年收到国家电网、南方电网等客户书面表扬信 167 封，锦旗 2 面，证书 2 个。

**Throughout the year, the Company received 167 written letters of commendation, 2 banners, and 2 certificates from clients such as SGCC and China Southern Power Grid.**

➤ **完善客户服务管理**

**Improve Customer Service Management**

- 修订 QP14 《售后服务控制程序》、ITSMP02 《服务级别管理程序》、ITSMP08 《问题管理程序》、ITSMP13 《变更管理程序》等文件，进一步规范客户服务流程，强化运维快速响应机制；

The Company revised documents such as QP14 "After-sales Service Control Procedure", "Service Level Management Procedure" (ITSMP02), "Problem Management Procedure" (ITSMP08), and "Change Management Procedure" (ITSMP13) to further standardize the customer service process and strengthen the operational rapid response mechanism.

- 对标《IEC62443-2-4:2015+A1+2017 工业自动化和控制系统安全 IACS 服务提供商的安全程序要求》，编制《海外项目网络安全验收大纲》和完善相关流程设计要求，以满足符合 IEC62443-2-4 标准的服务交付要求。

To benchmark against the Security Procedure Requirements for Industrial Automation and Control Systems (IACS) Service Providers in IEC 62443-2-4:2015+A1+2017, the Company developed the "Outline for Overseas Project Cybersecurity Acceptance" and enhanced the related process design requirements to meet the service delivery requirements compliant with the IEC 62443-2-4 standard.

➤ **压实服务安全责任**

**Compact Service Safety Responsibility**

- 成立安全小组，设备改造租赁项目应检率 100%，三级及以上风险 100%

到岗到位；完成设备改造租赁项目现场安全监督管理指导书、安全检查问题通知单等 16 个标准化总结文件，发表《电力项目安全监督在提升项目安全中的促进作用》专业论文 1 篇；

The Company established a safety team, ensuring that the inspection rate of equipment renovation leasing projects is 100% and that the on-site presence of level three and above risks is also 100%. The Company completed 16 standardized summary documents, such as on-site safety supervision and management guidelines for equipment renovation leasing projects, and safety inspection issue notification forms. Additionally, it published one professional paper titled "The Promotional Role of Safety Supervision in Improving Project Safety in Power Projects".

- 整理《工作负责人现场安全管理事项提示说明》、《国网安规交流培训材料》、《工作现场常见严重违章及释义》并开展专项宣贯培训，提升担任工作人的安全意识和专业能力；

The Company organized and compiled the "Guidelines for On-site Safety Management by Person in Charge of Work", "Training Materials on State Grid Safety Regulations" and "Common Serious Violations and Interpretations at Work Sites". Special promotion and training were conducted to enhance the safety awareness and professional capabilities of personnel in charge of work.

- 组织技术风险辨识活动，识别出 61 条重要风险及红线，编制《NRGC-ZX-S002-2023 产品技术风险汇编》，并通过月度学习常态宣贯，提升现场服务安全风险意识。

The Company organized technical risk identification activities, identifying 61 important risks and red lines. It compiled the "NRGC-ZX-S002-2023 Product Technical Risk Compilation" and enhanced on-site service safety risk awareness through monthly learning and normalization promotion.

➤ **强化保密责任意识**

**Enhance Awareness of Confidentiality Responsibilities**

- 修订《南瑞继保工程服务现场管理规定》，完善现场客户数据保护要

求；

The Company revised the "NARI-Relays Protection Engineering Service Site Management Regulations" to improve on-site customer data protection requirements.

- 国密、商密专项学习由每半年 1 次增至每季度 1 次，范围覆盖本部及外协所有工程服务人员；

The specialized training on national secret and commercial secret was increased from once every six months to once every quarter, covering all engineering service personnel in the headquarters and external contractors.

- 2023 年未收到因我司人员导致客户信息泄密事件的客户反馈。

As of 2023, no customer feedback has been received regarding any incidents of customer information leakage caused by the company's personnel.

➤ 客户满意度调查

**Customer Satisfaction Survey**

- 通过电话、短信等多渠道对具备条件的单位开展集中满意度回访。2023 年有效的短信回访 8324 次、电话回访 812 次，并编制《南瑞继保客户满意度调查报告（2023 年）》，从行业、专业、区域多维度进行分析，提出改进措施，不断提升服务水平；

The Company conducted centralized satisfaction surveys through various channels, such as phone calls and text messages, to eligible units. In 2023, the Company conducted a total of 8,324 effective SMS follow-ups and 812 phone follow-ups. It compiled the "NARI Protection Customer Satisfaction Survey Report (2023)", which analyzed data from multiple dimensions such as industry, profession, and region, proposed improvement measures, and continuously improved service levels.

内部指标	2021年	2022年	2023年
服务满意度（内部/10分）	9.89	9.91	9.92
服务及时响应率（%）	98.58	99.16	99.15
反馈问题解决率（%）	99.72	99.70	99.70

内部指标	Internal Indicator
服务满意度（内部/10分）	Service satisfaction (internal/10 points)
服务及时响应率（%）	Service response rate (%)
反馈问题解决率（%）	Feedback issue resolution rate (%)
2021年	2021
2022年	2022
2023年	2023

- 根据众言科技股份有限公司 2023 年度企业客户满意度调查，南瑞继保客户满意度 92.70（满分 100），满意度居行业首位。

According to the 2023 corporate customer satisfaction survey conducted by Zhongyan Technology Co., Ltd., NARI-Relays' customer satisfaction is 92.70 out of 100, ranking first in the industry.

➤ **聚焦解决客户痛点关切**

**Focus on Addressing Customer Pain Points and Concerns**

- 针对上海电力公司快速改造要求，以 220kV 林建 4149 线（500kV 三林变~220kV 浦建变）作为试点，采用预制转接件方案进行改造：RCS-931GMV 改成 PCS-931A-GCN，改造配线时间由原来的 1.5 天左右缩短到 2-3 小时，为用户节省大量的时间，该地区母差保护预制转接件方案将于 2024 年下半年 220kV 巨峰变试点；

In response to the rapid transformation requirements of Shanghai Electric Power Company, the Company selected the 220kV Linjian 4149 line (from the 500kV Sanlin substation to the 220kV Pujian substation) as a pilot project for transformation using prefabricated adapter solutions. The RCS-931GMV was replaced with the PCS-931A-GCN, reducing the wiring time for the transformation from the original 1.5 days to just 2-3 hours, thereby saving users a significant amount of time. The prefabricated adapter solution for busbar differential protection in this area will be piloted at the 220kV Jufeng substation in the second half of 2024.

- 针对北京地区的老旧线路主变母差等保护停电窗口非常短的现状，提出 10kV 保护和 110kV 线路保护兼容替代方案，6 月顺义 110kV 牛栏山变 2 条线路保护 RCS941A 和测控 RCS9705C 快速化改造试点，得到了北京局

各级领导的高度认可，为后续普遍推广起到了示范作用。

To address the short power-off window for the protection of aging main transformer's busbar differential protection in the Beijing area, the Company proposed a compatible alternative solution for 10kV protection and 110kV line protection. In June, a pilot project for the rapid transformation of RCS941A protection for two lines and measurement and control RCS9705C at the 110kV Niulanshan substation in Shunyi received high recognition from leaders at all levels of the Beijing Power Bureau, serving as a demonstrative example for future widespread promotion.

➤ 产品营销管理

Product Marketing Management

- 编写企业标准《Q\_NR A202-2020 产品技术文档编写规范》指导公司产品技术说明书等各类技术文档的编写，确保文件内容准确、规范，格式统一，方便识别、控制和使用，基于产品本身具备的功能、特性及使用方法，为用户及本公司工程服务人员提供有关产品的说明书文档。

The Company drafted the corporate standard "Product Technical Document Writing Specification" (Q\_NR A202-2020) to guide the creation of various technical documents, such as product technical manuals. This ensures the accuracy, standardization, and uniform formatting of document content, making it easier for identification, control, and use. Based on the inherent functions, characteristics, and usage methods of the products, the company provides instruction manuals for users and engineering service personnel.

- 所有营销人员定期开展合规性培训，内容涵盖广告法、反不正当竞争法、消费者权益保护法等相关法律法规。明确列出不得在营销活动中使用的词汇、图片或表述方式，如虚假宣传、贬低竞争对手、歧视性言论等，为营销人员划定清晰的合规边界。

All marketing personnel participate in regular compliance training, covering laws and regulations such as the Advertising Law, Anti-Unfair Competition Law, and Consumer Rights Protection Law, among others. The training clearly

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lists vocabulary, images, or expressions that are prohibited in marketing activities, such as false advertising, disparaging competitors, and discriminatory remarks, thereby establishing clear compliance boundaries for marketing personnel.

- 近三年内及报告期间，未收到客户及监管机构处罚、警告。

No penalties or warnings have been received from customers or regulatory authorities in the past three years and during the reporting period.

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## 四、实干当先·做美好生活的守护者

### IV. Prioritizing Action · To Be a Guardian of Better Life

南瑞继保坚定不移地秉持“创造价值、服务社会”的企业宗旨，将服务民众福祉视为企业行动的起点与归宿，致力于构建和谐稳固的劳动关系生态，为人才的茁壮成长提供沃土。公司秉持开放合作的精神，积极促进业界深度交流与战略携手，携手合作伙伴共创共赢新篇章。以善行义举践行社会责任，依托科技创新的力量，为乡村振兴注入强劲动力，致力于书写民生改善的精彩篇章，为构筑更加幸福美好的社会图景增添亮丽底色。本篇章从应助力员工成长、携手行业并进、关怀社区发展三维度入手，在维护员工权益、促进员工发展、关爱员工生活、强化供应链管理、引领行业发展、推进乡村振兴、开展公益慈善等方面响应联合国可持续发展目标 SDGs1、2、3、5、8、10、11、17 项的要求。

NARI-Relays unwaveringly adheres to the corporate mission of "creating value and serving society," viewing the well-being of the people as both the starting point and destination of its actions. The company is committed to building a harmonious and stable labor relationship ecosystem, providing fertile ground for the vigorous growth of talent. Upholding the spirit of open collaboration, NARI-Relays actively promotes deep exchanges and strategic partnerships within the industry, working hand in hand with partners to create a new chapter of mutual benefit and win-win cooperation. By performing good deeds and fulfilling social responsibilities, NARI leverages technological innovation to inject strong momentum into rural revitalization and is dedicated to improving people's livelihoods, contributing to a happier and more beautiful social landscape. This chapter focuses on three dimensions: supporting employee growth, working together for industry progress, and caring for community development. It responds to the United Nations Sustainable Development Goals (SDGs) 1, 2, 3, 5, 8, 10, 11, and 17, by safeguarding employee rights and interests, promoting employee development, caring for employees' lives, strengthening supply management, leading industry development, promoting rural revitalization, and engaging in public welfare.

## NARI-Relays and SDGs



### (一) 助力员工成长

#### (I) Supporting Employee Growth

秉承“科学组织起来的人才是公司最大的财富”的人才理念,重视员工基本权益保障,着力优化人才成长环境,关注员工职业健康,提升人文关怀,努力营造“工作紧张张张、生活愉愉快快、生活宽宽裕裕、邻里和和睦睦”文化氛围。

Adhering to the talent concept of "talent organized scientifically area the greatest wealth of the Company", we value the protection of employees' basic rights, strive to optimize the environment for talent growth, pay attention to employees' occupational health, enhance human care, and work hard to create a cultural atmosphere of "working diligently, living happily, being economically prosperous, and maintaining harmonious relationships with neighbors."

#### 1.维护员工权益

#### 1. Safeguard Employee Rights and Interests

南瑞继保高度重视员工基本权益保障,坚持多元、平等和包容,有序开展人才招聘工作,完善薪酬福利体系,注重民主管理,营造和谐、稳定的劳动关系。

NARI-Relays attaches great importance to safeguarding the basic rights and interests of employees, adheres to diversity, equality, and inclusiveness, conducts talent recruitment in an orderly manner, improves the salary and benefits system, emphasizes democratic management, and creates a harmonious and stable labor relationship.

### Data on NARI-Relays

- 员工总人数 1656 人

Total number of employees: 1,656

- 少数民族员工占比 2.2%

Proportion of ethnic minority employees: 2.2%

- 管理层中女性占比 3.2%

Proportion of women in senior management: 3.2%

- 劳动合同签订率 100%

Labor contract signing rate: 100%

- 社会保险覆盖率 100%

Social insurance coverage rate: 100%

- 员工流失率 1.8%

Employee turnover rate: 1.8%

- 用工违规及劳动纠纷事件 0 例

Violations of labor laws and labor disputes: 0 cases

- 新进招聘员工总数 205 人

Total number of new recruits: 205

- 公司人均带薪年休假天数 8.1 天

Average paid annual leave per employee: 8.1 days

- 员工满意度 98.5%

Employee satisfaction rate: 98.5%

### 员工性别结构

#### Employee Gender Structure

性别 Gender	人数 (人) Number (person)	占比 (%) Proportion (%)
男 Male	1477	89.2%
女 Female	179	10.8%

员工年龄结构 Employee Age Structure		
年龄段 Age	人数 (人) Number (person)	占比 (%) Proportion (%)
29 岁及以下 29 years old and below	233	14.1%
30-39 岁 30-39 years old	863	52.1%
40-49 岁 40-49 years old	499	30.1%
50 岁及以上 50 years old and above	61	3.7%

员工学历结构 Employee Education Structure		
学历 Educational background	人数 (人) Number (person)	占比 (%) Proportion (%)
大专及以下 College degree or below	185	11.1%
本科 Bachelor's degree	1008	60.9%
硕士及以上 Master's degree or above	463	28.0%

员工专业结构 Employee Professional Level Structure		
专业 Profession	人数 (人) Number (person)	占比 (%) Proportion (%)

高级技术人员 Senior technical personnel	360	21.7%
中级技术人员 Intermediate technical personnel	939	56.7%
初级技术人员 Junior technical personnel	297	17.9%
其他 Others	60	3.7%

员工层级结构 Employee Position Level Structure		
职级 Rank	人数 (人) Number (person)	占比 (%) Proportion (%)
中高级管理层 Senior management	36	2.2%
初级管理层 Junior management	157	9.5%
基层员工 Frontline staff	1463	88.3%

### 平等雇佣

#### Equal employment

- 严格遵守国家相关法律规定，制定《员工招聘管理办法》、《员工考勤休假管理办法》、《员工奖惩规定》等制度，规范人事管理、员工行为。  
The Company strictly adheres to relevant national laws and regulations, and established policies such as "Employee Recruitment Management Measures", "Employee Attendance and Leave Management Measures" and "Employee

Reward and Punishment Regulations" to standardize personnel management and employee conduct.

- 大力践行培育卓越工程师的使命与担当，与多所高校进行多资源共享，建设产教融合联合培养基地，有效解决高校的育人短板和企业的用人需求，为行业输送一批具有国际视野的科技与工程人才。

The company is dedicated to cultivating outstanding engineers by sharing resources with multiple universities to establish collaborative training bases for industry-education integration. This effectively addresses the talent development gaps in universities and meets enterprise needs, providing the industry with a group of technology and engineering professionals with international perspectives.

- 公司导入 SA8000 社会责任管理体系，关注员工身心健康和权益。避免用工歧视，禁止雇佣童工，反对以任何形式强制劳动，公平公正对待不同国籍、种族、性别、宗教信仰和文化背景的员工。

The Company has implemented the SA8000 Social Responsibility Management System, focusing on the physical and mental health and rights of employees. It avoids employment discrimination, prohibits child labor, opposes forced labor in any form, and treats employees of different nationalities, races, genders, religious beliefs, and cultural backgrounds fairly and justly.

- 公司高度重视员工个人信息和隐私的保护，建立了完善的个人信息和隐私保护管理机制。公司明确规定，开展员工个人信息处理活动必须遵循严格的原则和安全要求，确保员工隐私和个人信息安全不受侵犯。

The Company places great importance on the protection of employees' personal information and privacy, establishing a comprehensive management mechanism for personal information and privacy protection. It explicitly stipulates that handling employees' personal information must adhere to strict principles and security requirements to ensure that employee privacy and personal information security are not compromised.

薪酬福利

## Salary and welfare

- 公司重视人才激励，制定了《员工绩效管理办法》、《薪酬管理办法》等，强调薪酬福利和绩效考核体系的合理性、合法性和适宜性。以价值贡献为导向，从专业能力、岗位职级、绩效表现和薪酬待遇四个层面综合考虑，决定员工的工资和奖金标准。建立“职级-绩效-薪资”联动机制，持续提升人才吸引和保留能力。

The Company values talent motivation and has established "Employee Performance Management Measures" and "Compensation Management Measures," emphasizing the rationality, legality, and appropriateness of the compensation and benefits system and performance evaluation. Based on the value contribution, employee's salary and bonus standards are determined by considering professional capabilities, job levels, performance, and compensation comprehensively. A linkage mechanism between job levels, performance, and salary has been established to continuously enhance talent attraction and retention capabilities.

- 公司逐步引入股权激励计划、企业年金计划等长期激励机制，奖励政策向关键岗位员工和绩优员工倾斜，公司核心人才保留率维持较高水平。

The Company is gradually introducing long-term incentive mechanisms such as equity incentive plans and corporate pension plans, with reward policies favoring key position employees and outstanding performers, maintaining a high retention rate of core talents.

- 公司面向不同人群，提供了人性化的特色福利，包括面向新员工的宿舍福利，面向已成家员工的子女医疗补助、家庭日活动，面向所有员工的餐费补助、服装福利等项目。

The Company provides personalized benefits for different groups of people, including dormitory benefits for new employees, medical subsidies for the children of employees with families, family day activities, meal subsidies, clothing benefits, and other initiatives for all employees.

- 提升员工及子女医疗费报销水平，增加员工体检项目，优化员工意外险项

目，不断提升全体员工福利水平。

The reimbursement level for medical expenses of employees and their children has been enhanced, additional items have been added to employee physical examinations, the employee accident insurance program has been optimized, and the overall employee benefits continue to improve.

## 民主管理

### **Democratic management**

- 严格遵守《中华人民共和国工会法》《中国工会章程》《基层工会会员代表大会条例》。现工会委员会由 7 人组成，下设经费审查委员会、女职工委员会、劳动争议调解委员会和劳动法律监督委员会和 13 个分工会，8 个文体协会。职工入会率 100%。

The Company strictly abides by the Trade Union Law of the People's Republic of China, the China Trade Union Constitution, and the Regulations on the Congress of Basic Trade Union Members. The current trade union committee consists of 7 members, with subcommittees including the Finance Review Committee, Women Workers' Committee, Labor Dispute Mediation Committee, and Labor Law Supervision Committee, along with 13 branches and 8 cultural and sports associations. The employee participation rate is 100%.

- 规范召开职代会，设置总经理联络员机制，征集职工意见建议，聆听职工想法，解决职工的实际困难，公示公布重大事项，表彰奖励、处罚决定等工作，向全体职工汇报工会经费使用情况，充分保证职工的知情权、参与权、话语权和监督权。

The company convenes the trade union congress in accordance with regulations, establishing a mechanism of liaison officers with the general manager to solicit opinions and suggestions from employees, listen to their ideas, address their actual difficulties, publicize material matters, commend awards, and make disciplinary decisions. It reports on the use of trade union funds to all employees, ensuring their rights to information, participation, expression, and supervision.

- 围绕绕班组核心能力、数智化转型等方面开展“我为班组献一策”合理化建

议及“金点子”征集活动，征集建议，2023年138名职工从科技进步、数字赋能、绿色生产、节能减耗等方面提出408条建议，实施有效果的312条；

Focusing on the core capabilities of teams and digital transformation, the company conducted activities to collect rational suggestions and innovative ideas. In 2023, 138 employees proposed a total of 408 suggestions in areas such as technological progress, digital empowerment, green production, and energy conservation, with 312 suggestions being effectively implemented.

- 建好用好职工之家、职工诉求服务中心，推进“职工小家”建设，不断丰富服务功能，完善数字化智能化服务职工平台，构建联系广泛服务职工的工会工作体系。

The company builds and utilizes the Workers' Home and Workers' Service Center, promotes the construction of a "Workers' Home", continuously enriches service functions, enhances the digital and intelligent service platform for workers, and establishes a comprehensive trade union work system that serves a wide range of workers.

## 安保实践

### Security Practices

- 目前南瑞继保安保人员共有64人，属于劳务派遣服务，80%人员接受过人权政策或程序培训。

The company currently employs a total of 64 security personnel through labor dispatch services, with 80% of them having received training on human rights policies or procedures.

- 专业培训：进入南瑞继保的保安人员必须接受专业的培训，包括安保知识、法律法规、消防知识、急救技能等，以提高他们的综合能力。有助于他们更好地应对突发事件，如火灾、医疗紧急情况或犯罪活动。

Professional Training: Security personnel entering NARI-Relays must undergo professional training, including security knowledge, laws and regulations, fire safety knowledge, first aid skills, etc., to enhance their overall capabilities. These

better prepare them for emergencies such as fires, medical incidents, or criminal activities.

- 人权政策程序及培训：为确保安保人员在执行任务时能够遵循高标准的职业道德，同时为促进组织的整体合规性和社会责任感，南瑞继保安保人的人权培训主要涉及以下几方面：人权意识、专业行为、应对投诉、非歧视性实践、隐私保护、冲突解决、以及紧急情况应对。经过培训的安保人员知道在执行访客登记时避免侵犯个人权利，例如不当搜查、非法拘留或使用过度武力。

Human Rights Policy and Training: To ensure that security personnel adhere to high standards of professional ethics while performing their duties and to promote the organization's overall compliance and social responsibility, NARI-Relays' human rights training includes topics such as human rights awareness, professional behavior, complaint handling, non-discrimination practices, privacy protection, conflict resolution, and emergency response. Trained personnel understand the importance of avoiding violations of individual rights during visitor registration, such as improper searches, unlawful detention, or excessive use of force.

- 安全管理计划：制定详细的安保管方案，包括人员管理、车辆管理、访客管理、巡逻管理、应急管理、消防报警处置流程和危机响应程序。

Security Management Plan: The Company has developed a detailed security management plan, including personnel management, vehicle management, visitor management, patrol management, emergency management, fire alarm handling procedures, and crisis response procedures.

- 分类安全管理：将安保工作分为多个类别，如消防安全、治安安全、环境安全等，每个类别都有具体的管理措施和预案。

Classification Security Management: Security work is categorized into different areas, such as fire safety, public security, environmental safety, etc., with each category having specific management measures and contingency plans.

- 安全培训与教育：定期对员工进行安全意识教育和专业技能培训，提高员

工对消防安全规则的理解和执行能力，包括新员工入职消防安全培训以及应急演练等。

Safety Training and Education: Regular safety training and education are provided to employees to enhance their understanding and ability to implement fire safety rules, including fire safety training for new employees and emergency drills.

- 公司安全管理：对于公司内部，建立安全巡查制度，监控公司内外环境，及时发现并消除安全隐患，确保员工的人身和财产安全。

Company Safety Management: For internal safety management, the Company has established a safety inspection system to monitor both the internal and external environments, enabling the prompt identification and elimination of safety hazards to protect employee safety and property.

- 重点区域管理：加强对关键部位的管理，例如：带电试验区域、信息机房、锂电池实验室的日常巡查。

Key Area Management: Management of key areas is emphasized, with daily inspections conducted in critical zones like live test areas, data rooms, and lithium battery laboratories.

- 安全文化建设：营造“人人讲安全，事事为安全”的工作氛围，通过宣传、会议、案例分享等多种方式，增强员工的安全责任感和团队协作精神。

Safety Culture Development: The Company fosters a safety culture by promoting the mindset that "everyone talks about safety, and everything is done for safety", enhancing employees' safety responsibility and team spirit through various methods, including publicity, meetings, and case sharing.

- 绩效考核与激励机制：将治安安全、消防安全指标纳入员工绩效考核体系，用于评价安保人员的工作表现，奖励优秀者，激励团队合作，推动整体安全管理水平的提升。

Performance Evaluation and Incentive Mechanism: Public security and fire safety indicators are integrated into the employee performance evaluation system to assess security personnel's performance, reward exceptional contributions,

encourage teamwork, and enhance overall safety management levels.

- 信息交流与沟通：保持与当地执法机构的良好沟通，及时获取安全情报，例如：火灾事故、酒后驾驶案例和诈骗案例等，同时让员工了解最近安全形势

Information Exchange and Communication: The company maintains effective communication with local law enforcement to stay informed on security matters, such as fire incidents, drunk driving cases, and fraud, ensuring employees are aware of the latest security developments.

- 政策与法规遵守：确保所有安全措施符合国家和地方的法律法规，以及行业标准。

Policy and Regulatory Compliance: The company ensures that all safety measures are in compliance with national and local laws, regulations, and industry standards.

## 员工满意度

### Employee Satisfaction

- 公司每年开展体系化的员工满意度调研，从多维度对调研数据进行分析 and 呈现。2023年，员工整体满意度达到98.5%，部分重要指标如员工职业发展、留人、直接领导的评分均有一定提升。数据的提升表明公司针对2022年调研结果采取的一些列措施取得了成效，获得了员工肯定。

The Company conducts systematic employee satisfaction surveys annually, analyzing and presenting the survey data from multiple dimensions. In 2023, the overall employee satisfaction reached 98.5%, with some key indicators such as employee career development, retention, and ratings of direct supervisors showing improvement. The improvement in data indicates that the series of measures taken by the Company in response to the 2022 survey results have been effective and recognized by employees.

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## 2.促进员工发展

### 2. Promote Employee Development

南瑞继保以人才能力建设为核心，坚持多岗位锻炼培养多专多能复合人才，不断完善人才培养体系建设，打造畅通的职业发展通道，努力为不同类型的员工提供多种职业发展机会，实现员工职业能力、职业素质、职业精神的全面提升。

NARI-Relays focuses on talent development as its core, adhering to the training of versatile talents across multiple positions. The Company continuously improves its talent development system, creates smooth career development paths, and strives to provide various career development opportunities for different types of employees, achieving a comprehensive enhancement of their professional abilities, qualities, and spirits.

#### 数读继保

##### Data on NARI-Relays

- 线下培训：公司每年制定培训计划并实施。2023 年组织员工培训 251 次，培训 25388 人次，培训计划完成率为 95.4%，人均培训学时 15.3 小时。  
Offline training: The Company develops and implements an annual training plan. In 2023, it organized 251 training sessions, reaching a total of 25,388 individuals. The completion rate of the training plan was 95.4%, with an average training duration of 15.3 hours per person.
- 线上培训：学习平台累计上线课程 1770 个，年度线上学习总时长达到 57794 小时，人均培训学时 34.9 小时。  
Online training: The learning platform has launched 1,770 courses, with total online learning hours reaching 57,794. The average training duration per person was 34.9 hours.
- 205 名校招新人，参加为期三个月的培养项目，培训项目分企业文化、专业技术、岗前技能三个阶段进行。  
A total of 205 new recruits from prestigious schools participated in a three-month

training program, which was structured in three phases: corporate culture, professional skills, and pre-job skills training.

- 开展研究院青年训练营、设计院人才发展项目、导师训练班，在职业发展各阶段牵引员工不断进阶。

The Company conducts initiatives such as a youth training camp at the research institute, a talent development program at the design institute, and mentor training classes, guiding employees to advance through various stages of their career development.

完善职业培训体系 Improving the Vocational Training System	
重点任务 Key tasks	行动举措 Action measures
培训管理体系 Training management system	<p>公司长期坚持“自主培养”的人才建设理念，逐步构建了一套完善有效的人才培养体系，基于组织、业务、员工三个维度的需求识别，培训计划的全周期制定、动态响应，项目分类分层的实施运营，四级评估法的有效运用，确保了培训四步骤有效有序进行，保障了培训目标的贯彻实施。</p> <p>The Company has long adhered to the talent development concept of "independent cultivation", gradually establishing a comprehensive and effective talent development system. Based on the identification of needs from the dimensions of organization, business, and employees, the training plan is dynamically responsive throughout the entire cycle. The implementation and operation are categorized and layered, and the four-level evaluation method is effectively utilized, ensuring that the training progresses in an effective and orderly manner through the four steps, and guaranteeing the implementation of training objectives.</p>
培训课程体系	围绕新人培训、专业培训、管理培训三大模块，公司建立了

<p>Training course system</p>	<p>一套完整培训管理体系；组织牵头，赋能个体，全面覆盖培训需求，通过面授培训、在线培训、混合式培训项目、参观学习、户外拓展等形式，不断推动员工的学习发展，持续打造学习型组织。</p> <p>The Company has established a comprehensive training management system centered around three major modules: new employee training, professional training, and management training. By organizing and empowering individuals, the training needs are thoroughly addressed through various methods, including face-to-face training, online training, blended training programs, study visits, and outdoor experiential learning. This continuous effort promotes employee learning and development, contributing to the establishment of a learning organization.</p>
<p>师资队伍建设 Faculty team building</p>	<p>构建了一支 200 多人的内部讲师队伍，贡献了公司课程体系近 1000 门课程。组织多期敏捷 TTT 讲师赋能训练营，提高内训师组织经验萃取和内部赋能的能力，在学习过程中沉淀知识经验，产出精品课程，系统性培养讲师的课程制作以及授课能力。</p> <p>The Company has developed an internal team of over 200 trainers, who have contributed nearly 1,000 courses to the curriculum. Multiple sessions of Agile TTT Trainer Empowerment Training Camps are organized to enhance internal trainers' abilities in experience extraction and internal empowerment. During the learning process, valuable knowledge and experience are accumulated, resulting in high-quality courses and the systematic cultivation of trainers' course production and teaching capabilities.</p>
<p>岗位带教机制 Positional mentoring</p>	<p>不断优化岗位带教机制，加强公司历史文化培训，通过典型标杆学习、新老员工座谈、经验交流等方式，加强文化引领；健全师徒帮带机制，通过关键任务设定、技能考核等方</p>

mechanism	<p>式加强帮带过程管控，助力新员工快速成长，引导青年员工成为企业文化的传承者和弘扬者。</p> <p>The Company continuously optimizes the job mentoring mechanism and strengthens training on company history and culture. Cultural guidance is enhanced through methods such as learning from exemplary benchmarks, discussions between new and veteran employees, and experience sharing. Additionally, the mentorship system is refined, with strengthened control over the mentoring process through the establishment of key tasks and skill assessments. This supports the rapid growth of new employees and guides young employees to become inheritors and promoters of the corporate culture.</p>
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### 畅通职业发展通道

#### Career Development Channel

- 建立各岗位各职级任职资格，打造人才评价标尺。建立晋升管理流程，每年开展任职资格认证工作，对申请人的关键业绩、知识技能和胜任素质进行评审，对于认证合格者给与职级晋升。

The Company establishes qualifications for each position and level, creating a talent evaluation scale. A promotion management process is in place, conducting annual qualification certification to review applicants' key performance, knowledge, skills, and competencies. Those who pass the certification are promoted to higher positions.

- 积极建设员工的横向职业发展通道。公司构建了成熟的内部人才供应链。每年通过公开、公平的内部竞聘机制，鼓励员工跨中心流动，给员工提供了多维度的职业发展选择，2023年共有110名员工通过内部竞聘转岗到新岗位。

The Company actively builds horizontal career development paths for employees. It has established a mature internal talent supply chain. Each year, through an

open and fair internal competition mechanism, employees are encouraged to move across centers, providing multidimensional career development options. In 2023, a total of 110 employees successfully transferred to new positions through internal competition.

### 3. 关爱员工生活

#### 3. Care for Employees' Lives

南瑞继保竭诚为广大员工提供实际人文关怀，不断优化员工关怀管理制度，通过举办丰富多彩的文体活动、加大对女职工关爱力度及困难职工帮扶力度，标准化建设女职工三期休息室 2 个，为单身员工实施牵手活动，助力职工组建幸福家庭。开展篮球、足球、乒乓球、羽毛球等比赛和线上线下健跑步活动，年均 3000 人次参加活动，组建摄影、瑜伽、书画等文体协会，举办各类讲座、培训和活动，进一步丰富职工精神文化生活。将对员工的关怀、关爱落到实处，平衡员工工作与生活，增强员工归属感、幸福感和获得感；对离退休人员开展走访慰问，组织健康休养活动，提升幸福指数。

NARI-Relays is dedicated to providing practical and humanistic care for its employees, continuously optimizing the employee care management system. This includes organizing a variety of cultural and sports activities, increasing support for female employees, assisting employees in need, standardizing the construction of two rest rooms for female employees, and implementing matchmaking activities for single employees to help them build happy families. The Company organizes basketball, football, table tennis, and badminton competitions, as well as online and offline running events, with an average of 3,000 participants per year. Cultural and sports associations for photography, yoga, calligraphy, and other activities are established, along with various lectures, training sessions, and events to further enrich employees' spiritual and cultural lives. NARI-Relays implements caring support for employees, balancing work and life, and enhancing their sense of belonging, happiness, and fulfillment. The Company also visits and comforts retired personnel, organizing health and recuperation activities to improve their happiness index.

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## 数读继保

### Data on NARI-Relays

- 开展形式多样的慰问工作，2023 年探望生病住院员工 69 人次，现场及班组慰问 46 次，共计 935 人；对 47 名特困员工、18 名出差海外及国内患疾病员工进行补助慰问，走访退休老同志 132 人次，为 125 位新婚及生育员工送去祝福，慰问金额 134.5 万元。

A variety of care activities were carried out, with 69 visits to hospitalized employees in 2023, on-site and team care conducted 46 times, totaling 935 people; subsidies and support were provided to 47 employees in special difficulties, 18 employees who were on business trips overseas or domestically and fell ill, 132 retired comrades were visited, blessings were sent to 125 newlyweds and employees who gave birth, with a total support amount of 1.345 million yuan.

## 见证荣耀

### Witness the Glory



严格执行职代会制度，坚持将关系公司改革发展稳定、关系职工切身利益的重大问题，纳入职代会议事范围，注重民主管理制度建设，每年召开职工代表大会，征集职工代表提案，鼓励员工参与公司管理。积极开展职工合理化建议征集和“建言献策”活动。今年1月29日召开第四届职工代表代表大会第三次会议，会议听取、审议并表决通过了《牢记嘱托、守正创新、伟提高国家能源安全和保障能力而奋斗》的工作报告，《公司员工奖励基金2023年度总结报告》《公司员工手册V2.5》等报告。

The Company strictly implements the system of the workers' representative

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conference, adhering to incorporating key issues related to the company's reform, development, stability, and employees' vital interests into the scope of workers' representative conference affairs. The Company focuses on the construction of a democratic management system and holds an annual workers' representative conference to solicit proposals from worker representatives, encouraging employees to participate in company management. The Company actively conducts the collection of workers' rationalization suggestions and the "suggestions and proposals" activities. The third meeting of the Fourth Workers' Representative Conference was held on January 29 this year. The meeting listened to, reviewed, and voted to approve the work report titled "Remembering the Entrusted Mission, Upholding Integrity and Innovation, and Striving to Enhance National Energy Security and Guarantee Capability", as well as reports such as the "Summary Report of the Company's Employee Incentive Fund for 2023" and the "Company Employee Handbook V2.5."

自 2019 年南京市、江宁区推行集体协商工作推动产业工人队伍建设改革政策以来，我们的工作实践证明，集体协商是行之有效的达成员工与企业双赢的管理方式。今后我们将继续发挥企业工会的作用，积极开展集体协商，推动公司民主管理的进程。

Since the implementation of the collective bargaining policy in Nanjing and Jiangning District in 2019 to promote the reform of industrial workers' team construction, our practical experience has proven that collective bargaining is an effective management approach to achieve win-win outcomes for both employees and enterprises. In the future, the Company will continue to play the role of enterprise trade unions, actively engaging in collective bargaining and promoting the process of democratic management within the company.

#### **案例 1：“趣味研学”欢乐家庭日活动**

##### **Case 1: "Fun Study" Family Day Event**

信息、人资、综合办等中心联合开展“趣味研学”欢乐家庭日活动。大手牵小手，小朋友们通过欢乐有趣的参观和科学奇妙的探索，领略了勇攀电力高

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峰的科研精神，激发了对电力知识的兴趣和好奇心。

The Information, Human Resources, and General Affairs Centers jointly organized the "Fun Study" Happy Family Day event. Hand in hand, the children experienced the joy and excitement of visiting and exploring the wonders of science, appreciating the spirit of scientific research in conquering the peaks of electricity. This experience sparked their interest and curiosity about electrical knowledge.

首先大家一起来到了展厅，详细了解了南瑞继保的发展历程、企业文化、科研和产业化成果等。通过辉光球、静电球等有趣的实验，孩子们在快乐的游戏萌生出对电力世界的好奇心。探索实验活动好玩有趣，在寓教于乐的同时培养了孩子的观察、分析和实验等科学思维能力，还增长了他们的知识。孩子们穿着防静电服走进车间，近距离体验产品的制造过程及质量控制要求，零距离感受父母的工作场景和岗位要求。技艺精湛的机器手臂引来了大家的围观，孩子们发出了阵阵欢呼声，表达了他们对智能制造的震撼，同时也对父母们的工作投来了崇拜的目光。

First, all participants visited the exhibition hall together, where they learned in detail about the development history, corporate culture, research achievements, and industrialization results of NARI-Relays. Through engaging experiments like plasma balls and static electricity demonstrations, the children developed a curiosity about the world of electricity while enjoying playful activities. The exploratory experimental activities were both entertaining and educational. They not only provided enjoyment but also cultivated the children's scientific thinking skills, such as observation, analysis, and experimentation, while enhancing their knowledge. Children donned anti-static clothing to enter the workshop, where they experienced the manufacturing process and quality control requirements of the products up close, gaining firsthand insight into their parents' work environment and job responsibilities. The skilled robotic arm attracted a crowd of onlookers, and the children exclaimed in amazement, expressing their awe for intelligent manufacturing while casting admiring glances at their parents' work.

最后安排了亲子游戏互动环节，套圈、投球等户外游戏让大家激动不已。

家长和孩子们乐此不疲，整个操场上空都回荡着大家开心的嬉笑声。绿茵场上，灿烂的笑脸，快乐的身影，家长和孩子们尽情享受秋日阳光下的惬意。

Finally, a parent-child interactive game session was arranged, featuring outdoor games like ring toss and ball throwing, which excited everyone. Parents and children enjoyed the activities thoroughly, filling the playground with laughter and joy. On the green field, with bright smiles and happy faces, parents and children relished the delightful autumn sunshine together.



## 案例 2：南瑞继保亲子足球嘉年华活动

### Case 2: NARI-Relays Parent-Child Football Carnival Event

2023 年 8 月 12 日，南瑞继保亲子足球嘉年华活动在产业园成功举办，虽骄阳似火，但近百名家长、孩子因对公司的热爱、对足球的热爱而相聚于此，参与热情高涨，活动气氛也持续高涨，一同为继保注入更多的激情与美好。

On August 12, 2023, the NARI-Relays Parent-Child Football Carnival was successfully held in the industrial park. Despite the scorching sun, nearly a hundred parents and children gathered here, united by their love for the company and football. The enthusiasm was palpable, and the atmosphere of the event remained vibrant, infusing NARI-Relays with even more passion and joy.

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本次活动共有 40 位小朋友、58 位大朋友参加，为保证活动效果，根据小朋友年龄分成了两组，分别进行了参观公司展厅、公司企业文化宣传及户外活动；户外活动主要分成四部分，分别为带球绕杆、定点进圈、球撞保龄及点球决胜四项，每队每项积分，最后决出冠军。萌娃们顶着南京入夏以来最大的骄阳，全情投入、挥汗如雨、配合无间，纷纷为自己的团队贡献了全部的热情。在活动聚餐结束后，好多萌娃对球场依旧恋恋不舍，索性又临时加上了一场对抗赛，最后兴尽而归。

A total of 40 children and 58 adults participated in this event. To ensure its effectiveness, participants were divided into two groups based on the children's ages. They visited the company's exhibition hall, learned about the corporate culture, and engaged in various outdoor activities. The outdoor activities consisted of four parts: dribbling around poles, target shooting, bowling with a ball, and penalty shootouts. Points were awarded for each activity, and champions were determined at the end. The enthusiastic children braved the intense summer heat in Nanjing, giving their all, sweating profusely, and cooperating seamlessly to contribute their full energy to their teams. After the dinner, many kids were reluctant to leave the field and spontaneously organized an impromptu match, leaving with great joy.

通过本次活动，让萌娃对自己爸爸妈妈工作的地方有了更清楚的认知，同时也留下了自己的印记，更在萌娃心里播下了爱运动爱拼搏的种子，静待花开的美好！

Through this event, the children gained a clearer understanding of their parents' workplace, leaving their own unique marks. It also planted the seeds of a love for sports and a determination to strive for success in their hearts, awaiting the beautiful blossoms of their efforts!



### 案例 3：环保徒步活动

#### Case 3: Environmental Hiking Event

为加强员工的环保意识，公司工会“爱跑俱乐部”联合“摄影协会”在方山举行了“治愈自然，我们在行动”主题环保徒步活动。

To enhance employees' awareness of environmental protection, the company's labor union's "Love Running Club", in collaboration with the Photography Association, organized a themed environmental hiking event titled "Healing Nature, We Are Taking Action" at Fangshan.

大家脚踏实地、互相鼓励，共同攀登。在攀登过程中，大家相互协作，锻炼了身体的同时，也增进了彼此之间的交流和团队精神。

Participants worked hard, encouraged each other, and climbed together. During the hike, they cooperated, exercised their bodies, and fostered communication and teamwork spirit among one another.

到达山顶后，大家在那里欣赏到了壮丽的景色，感受到大自然的魅力。参与者在徒步途中积极清理垃圾，并进行了环境保护的宣传，以提醒大家保护自然环境的重要性。

Upon reaching the mountaintop, everyone enjoyed the magnificent views and experienced the beauty of nature. Participants actively cleaned up litter during the

hike and engaged in environmental advocacy, reminding everyone of the importance of protecting the natural environment.



#### 4.关注职业健康

#### 4. Focus on Occupational Health

南瑞继保严格遵循《中华人民共和国职业病防治法》及相关法律法规要求，制定《职业卫生管理规范》《职业卫生管理手册》等管理办法，并通过 GB/T 45001-2020/ISO 45001:2018 职业健康安全管理体系认证，持续完善职业健康管理体系。安委会定期组织相关中心一线员工安全风险和职业卫生风险辨识和评价，相关岗位人员积极参与，完善相关制度和应对措施，配齐配足劳动防护用品。公司落实属地政府要求，按期完成年度职业危害因素检测，组织相关作业人员进行职业病体检，广泛开展职业卫生宣传教育，全力保障员工身心健康。

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公司设立健身房，工会成立篮球协会、羽毛球协会，鼓励员工体育运动，同时提供心理面诊服务，食堂提供健康的饮食选择，多方面促进员工健康。公司制定突发疾病应急方案并定期演练，配备 AED 等急救设备，开展急救知识宣传和技能培训，努力提高员工自救与互救能力。

NARI-Relays strictly adheres to the "Occupational Disease Prevention and Control Law of the People's Republic of China" and relevant laws and regulations, establishing management methods such as the "Occupational Health Management Standard" and the "Occupational Health Management Manual". The Company has obtained GB/T 45001-2020/ISO 45001:2018 Occupational Health and Safety Management System certification and continuously enhances its occupational health management system. The Safety Committee regularly organizes frontline employees from relevant centers to identify and assess safety and occupational health risks. Personnel in relevant positions actively participate in improving systems and response measures, ensuring that sufficient labor protection equipment is available. The Company complies with local government requirements, completes annual occupational hazard factor testing on schedule, organizes occupational health examinations for relevant workers, promotes occupational health education extensively, and fully safeguards the physical and mental well-being of its employees. The Company has set a gym, and the labor union has formed basketball and badminton associations to encourage employee participation in sports. Additionally, the Company offers psychological counseling services, provides healthy dietary options in the cafeteria, and promotes employee health in multiple ways. The Company also develops emergency response plans for sudden illnesses and conducts regular drills, equips with AEDs and other first-aid devices, and organizes first-aid knowledge dissemination and skill training, striving to enhance employees' self-rescue and mutual rescue abilities.

#### 数读南瑞

##### **Data on NARI-Relays**

- 职业健康与安全培训 5 期，累计 500 人次

Conducted 5 sessions of occupational health and safety training, totaling 500 participants.

- 新增职业病 0 例

Reported 0 new cases of occupational diseases.

- 职工健康体检覆盖率 100%

Achieved 100% coverage rate for employee health examinations.

- 为职工配备工装 2000 套

Provided 2,000 sets of work uniforms for employees.

### 案例：工会组织应急救护知识培训讲座

#### Case: Emergency First Aid Training Seminar for Trade Union Organizations

7月13日上午，工会组织应急救护知识培训讲座，各中心安全员共40人参加培训。

On the morning of July 13, a training seminar on emergency first aid knowledge was organized by the labor union, with a total of 40 safety officers from various centers attending the training.



本次培训由红十字会张霞讲师现场讲授应急救护的基本知识。张老师通过多媒体授课和现场操作相结合的方式，讲解了心肺复苏、自动体外除颤仪（AED）、气道梗阻等基本技能并与员工进行了现场操作和示范。

The training session was conducted by instructor Zhang Xia from the Red Cross, who taught the basic knowledge of emergency first aid on-site. Ms. Zhang explained essential skills such as cardiopulmonary resuscitation, automated external defibrillator (AED), and airway obstruction through a combination of multimedia teaching and live demonstrations with employees.



通过此次培训，使员工们学习掌握了应急救护知识以及基本的自救互救能力。大家纷纷表示，培训内容和形式贴近生活实际，弥补了部分知识盲点，提高了应对意外伤害和突发事件的救护能力。

Through this training, employees learned and mastered basic first aid knowledge and self-rescue skills. Many expressed that the training content and format were closely related to real-life situations, filling in some knowledge gaps and enhancing their ability to respond to accidents and emergencies.

## (二) 携手行业共进

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## **(II) Working Together for Industry Progress**

南瑞继保始终坚守公平交易、公平竞争的原则，秉持互利共赢、协同发展的理念，在供应链建设与运行中积极践行社会责任。坚决维护供应商的合法权益，与供应商携手共进，共同发展。坚持全生命周期供应链管理理念，致力于协助供应商提升管理效能、标准及责任意识，旨在增强供应链的整体竞争力。同时，积极贯彻落实国务院国资委《关于中央企业实施高质量发展以实现碳达峰碳中和目标的指导意见》、国家电网《绿色现代数智供应链发展行动方案》等文件精神，加快推进绿色供应链建设，探索建立统一的绿色产品标准、认证、标识体系，鼓励采购绿色产品和服务，积极扶植绿色产业，推动形成绿色制造供应链体系。其次，充分利用数字化平台，实现供应链全流程可视化管理。旨在建设一个公正透明、合规高效、稳健可靠，互利共赢、信息互通，具备强大整体竞争优势的绿色供应链生态系统。

NARI-Relays always adheres to the principles of fair trade and fair competition, upholding the concept of mutual benefit and collaborative development while actively practicing social responsibility in the construction and operation of the supply chain. The Company resolutely safeguards the legitimate rights and interests of suppliers, working hand in hand with them for mutual development. Adhering to the full lifecycle supply chain management concept, NARI-Relays is dedicated to assisting suppliers in enhancing their management efficiency, standards, and sense of responsibility, with the aim of improving the overall competitiveness of the supply chain. At the same time, the Company actively implements the "Guiding Opinions on Central Enterprises Implementing High-quality Development to Achieve Carbon Peak and Carbon Neutrality Goals" issued by the State-owned Assets Supervision and Administration Commission of the State Council, as well as the "Action Plan for Green, Modern, and Intelligent Supply Chain Development" from SGCC. NARI-Relays accelerates the construction of green supply chains, explores the establishment of a unified system for green product standards, certification, and labeling, encourages the procurement of green products and services, actively supports green industries, and promotes the formation of a green manufacturing supply chain system. Furthermore, the Company fully utilizes digital platforms to achieve end-to-end

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visibility and management of the supply chain, aiming to build a green supply chain ecosystem that is fair, transparent, compliant, efficient, stable, reliable, mutually beneficial, interconnected, and possesses strong overall competitive advantages.

## 1. 强化供应管理

### 1. Strengthen Supply Management

南瑞继保严格遵守《中华人民共和国招标投标法》《中华人民共和国招标投标法实施条例》，构建了全面覆盖供应商从寻源至绩效管理全周期的管理制度体系。设定严格供应商准入门槛，强化供应商审查与评价流程，主动防控供应链中潜在的环境及社会风险。实施有效的供应商分级分类、关系管理，不断优化供应商绩效考核体系，规范采购流程，优化数字化采购平台。持续致力于供应商能力提升，开展供应商辅导与培训，赋能合作伙伴共同成长。在绿色可持续发展的道路上，推动供应链向更加环保、高效的方向转型，实现经济效益与社会责任的和谐统一，推动国家绿色供应链管理企业认证。

NARI-Relays strictly complies with the "Tendering and Bidding Law of the People's Republic of China" and "Regulations for the Implementation of the Tendering and Bidding Law of the People's Republic of China", establishing a comprehensive management system that covers the entire cycle of supplier management from sourcing to performance evaluation. The Company sets strict supplier admission criteria, strengthens supplier review and evaluation processes, and proactively prevents and controls potential environmental and social risks within the supply chain. Effective supplier classification and relationship management are implemented, continuously optimizing the supplier performance evaluation system, standardizing procurement processes, and enhancing digital procurement platforms. NARI-Relays is committed to enhancing supplier capabilities by providing coaching and training, empowering partners to grow together. On the path of green sustainable development, the Company promotes the transformation of the supply chain towards a more environmentally friendly and efficient direction, achieving the harmonious unity of economic benefits and social responsibility while advancing national certification for green supply chain management enterprises.

## 数读南瑞继保

### Data on NARI-Relays

- 经济合同履约率 100%  
Economic contract fulfillment rate: 100%
- 合作供应商 2117 家  
2,117 cooperative suppliers
- 供应商培训 6 场  
6 sessions of supplier training
- 审查的供应商数量 940 家  
Number of suppliers reviewed: 940
- 不良供应商实施系统冻结 20 家  
20 suppliers blacklisted with systems frozen
- 风险物料化解率 97.3%  
Risk materialization resolution rate: 97.3%

按地区划分的供应商数目		
Number of Suppliers by Region		
地区 Region	供应商数量 (家) Number of suppliers	占比 (%) Proportion (%)
东北地区 Northeast China	79	3.73
华北地区 North China	457	21.59
华东地区 East China	836	39.49
华南地区 South China region	249	11.76
华中地区	318	15.02

Central China		
西北地区 Northwest Region	139	6.57
境外地区 Overseas regions	39	1.84

## 责任采购

### Responsible Procurement

- 优化并完善采购业务流程，强化采购程序文件的有效性评估，不断提升采购业务规范管理的控制力度；

NARI-Relays optimized and improved the procurement business process, strengthened the effectiveness evaluation of procurement procedure documents, and continuously enhanced control over standardized management of procurement operations.

- 大力推进数字化平台建设，推进采购活动公开透明、规范有序，加强采购管理，严防腐败与商业贿赂，促进公平交易；

It vigorously promoted the construction of digital platforms, advanced procurement activities in an open, transparent, standardized, and orderly manner, strengthened procurement management, strictly guarded against corruption and commercial bribery, and promoted fair trade.

- 积极响应国家碳达峰和碳中和目标，全力构建绿色供应链，鼓励和支持供应商采用可持续的生产和经营方式，优先选择采取环保措施、减少碳排放、使用可再生资源、减少废物和污染的供应商。公司成立创建绿色供应链管理企业工作小组，率先在行业内推行全面无铅焊等绿色制造工艺，推动行业上游合作伙伴的产品绿色升级迭代，带动行业绿色制造发展；

The Company actively responded to the national carbon peaking and carbon neutrality goals, fully built a green supply chain, and encouraged and supported suppliers to adopt sustainable production and operation methods, prioritizing those who take environmental protection measures, reduce carbon emissions, use

renewable resources, and minimize waste and pollution. The Company established an enterprise working group on green supply chain management, leading the promotion of comprehensive lead-free manufacturing processes in the industry, driving the green upgrade and iteration of products from upstream partners, and promoting the development of green manufacturing in the industry.

- 识别和管理供应链中的风险，确保供应链的稳定性和韧性；

NARI-Relays identified and managed risks in the supply chain to ensure its stability and resilience.

- 帮助和辅导供应商成长，适时对供应商进行评估和分析，不断督促供应商自我完善，持续改进，以提高供应商的竞争力；

It helped and guided suppliers to grow, timely assessing and analyzing suppliers, continuously urging them to improve, and enhancing their competitiveness.

- 加强境外项目采购管理过程管控，促进采购流程标准化；

NARI-Relays strengthened the management and control of overseas project procurement processes to promote standardization of the procurement process.

## 供应商管理

### Supplier Management

- 严格供应商准入门槛，实施有效的供应商分级分类，明确供应商准入提资清单，多部门参与，对供应商进行全面、细致、有效的评估及审批，把好供应商“入口关”；推进供应商现场考察工作，评估和选择合适的供应商，确保整个供应链的健康、高效和可持续发展；

NARI-Relays set strict thresholds for supplier access, implemented effective supplier classification, clarified supplier admission requirements lists, and involved multiple departments in conducting comprehensive, detailed, and effective evaluations and approvals of suppliers, controlling the "entry gate". The Company promoted on-site inspections of suppliers to evaluate and select suitable ones, ensuring the health, efficiency, and sustainable development of the entire supply chain.

- 持续加强供应商环境评估、社会评估，计划 5 年内实现合格供应商中通过环境评估、社会评估手段选择的供应商占比达到 80%；

NARI-Relays continuously strengthened supplier environmental and social assessments, planning to achieve that within 5 years, 80% of qualified suppliers are selected through environmental and social assessment methods.

- 优化供应商绩效评价标准，采用动态评价+年度复评的供应商绩效管理方法，根据供应商分级分类建立差异化评价模型，从 ESG 等多方面对供应商进行综合评价，实现供应商审核全覆盖，合格供应商分级分类，优胜劣汰；

It optimized supplier performance evaluation standards, adopted a dynamic evaluation and annual review system, established a differentiated evaluation model based on supplier classification, and conducted comprehensive evaluations from various aspects such as ESG, to achieve full coverage of supplier audits, classify qualified suppliers, and promote the survival of the fittest.

- 强化不良供应商管理，针对发生重大环境或安全负面事件的供应商，暂停合作；

NARI-Relays strengthened the management of poor-performing suppliers, suspending cooperation with those involved in major environmental or safety incidents.

- 推行 SRM 系统，建立供应商门户，实现订单发布、签约、履约、结算、资质管理等，提高供应履约管控和计划协同能力，建立供应商管理平台，实施采购全流程信息化管理；

NARI-Relays implemented the SRM system, established a supplier portal for order release, contract signing, performance, settlement, and qualification management, improved supplier performance control and planning coordination capabilities, established a supplier management platform, and implemented full-process information management for procurement.

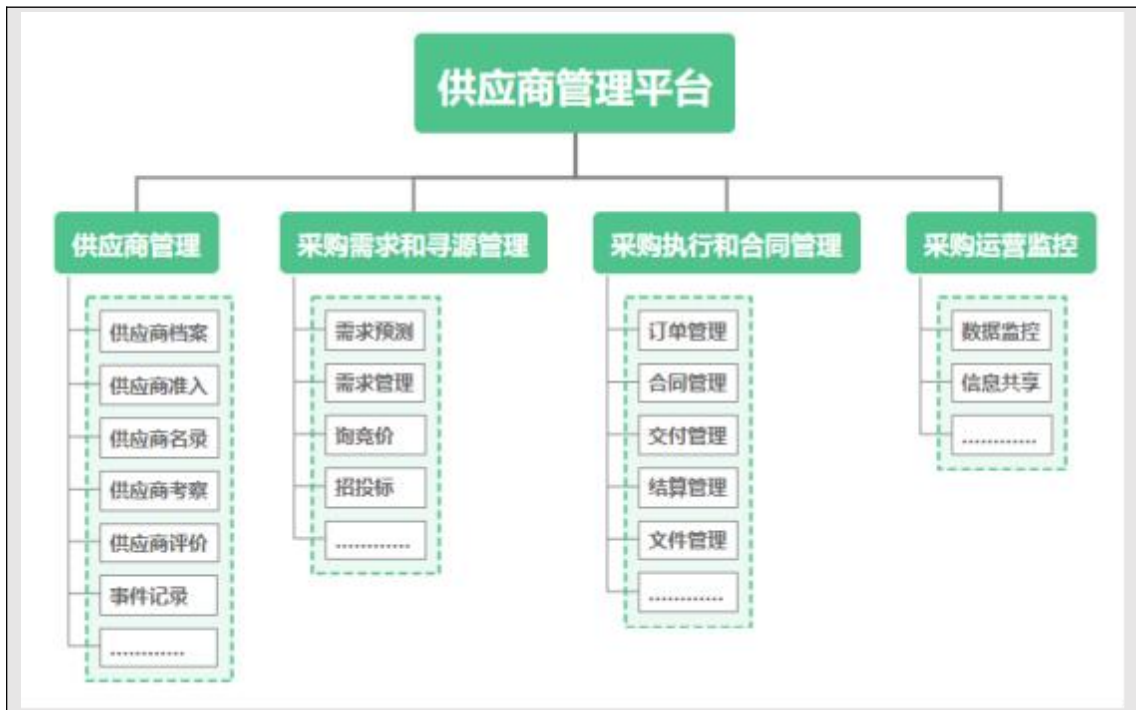
- 加强供应商培训及辅导，通过合同条款敦促供应商在安全生产、风险防控、环境保护、劳工权益等方面建立和完善相关管控体系和规章制度；

NARI-Relays enhanced supplier training and guidance, urging suppliers to establish and improve relevant control systems and regulations in work safety,

risk prevention, environmental protection, and labor rights through contract terms.

- 基于数据互联互通模式建立供应链一体化管理方式，带动供应商在线融入公司生产运营体系，凸显供应链协同运营优势；

NARI-Relays established a supply chain integrated management approach based on data interconnection and integration models, driving suppliers to integrate online into the company's production and operation system, and highlighting the advantages of supply chain collaborative operation.



供应商管理平台	Supplier Management Platform
供应商管理	Supplier Management
供应商档案	Supplier profile
供应商准入	Supplier access
供应商名录	Supplier directory
供应商考察	Supplier investigation
供应商评价	Supplier evaluation
事件记录	Event log
采购需求和寻源管理	Procurement needs and sourcing management
需求预测	Demand forecasting
需求管理	Demand management
询竞价	Inquiry for bidding
招投标	Bidding and tendering

采购执行和合同管理	Procurement execution and contract management
订单管理	Order management
合同管理	Contract management
交付管理	Delivery management
结算管理	Settlement management
文件管理	Document management
采购运营监控	Procurement operations monitoring
数据监控	Data monitoring
信息共享	Information sharing

### 案例 1：南瑞继保实地到菲律宾 AMERTRON 工厂考察

#### Case 1: NARI-Relays Visits AMERTRON Factory in the Philippines

南瑞继保致力于携手国际伙伴共同打造更为高效、绿色、可持续的产业链生态系统，从供应商的规模优势、价格交货、技术市里、生产管理、体系安环（绿色发展）、质量管理等方面深入考察，实现多角度、全方位地评估供应商。2023 年 10 月 10 日至 11 日，由南瑞继保代表组成的考察团，对位于菲律宾的 AMERTRON 工厂进行了深度访问。代表团成员面对面地与生产技术人员展开了深入对话，全面参观了其加工生产线，从需求分析、采购管理、供应链协调直至生产执行全流程进行细致复盘，进一步提升了双方的沟通效率、强化了双方的互信关系。

NARI-Relays is committed to collaborating with international partners to build a more efficient, green, and sustainable industrial chain ecosystem. The company conducts in-depth evaluations of suppliers from various perspectives, including supplier scale advantages, price delivery, technology market assessment, production management, system safety and environmental considerations (green development), and quality management, to achieve a comprehensive, multi-faceted assessment of suppliers. From October 10 to 11, 2023, a delegation composed of representatives from NARI-Relays conducted an in-depth visit to the AMERTRON factory located in the Philippines. Delegation members engaged in face-to-face discussions with production technicians and comprehensively toured the processing production line. They carefully reviewed the entire process from demand analysis, procurement management, and supply chain coordination to production execution, enhancing

communication efficiency and strengthening mutual trust between the two parties.



开展交流会议

**Exchange Conference**



深入产线考察

**In-depth Factory Inspection**

## 案例 2：新华三技术有限公司杭州未来工厂考察交流

### Case 2: Visit Future Factory of Hangzhou New H3C Technologies Co., Ltd.

公司组织不同品类供应商的深度考察与交流活动，旨在助力企业达成环境、社会和经济效益的协同提升，有效管控风险，增强竞争优势，确保满足高质量标准，并实现长期可持续发展目标。

NARI-Relays organized in-depth inspections and exchanges with suppliers from different categories, aiming to assist itself in achieving synergistic improvements in environmental, social, and economic benefits, effectively managing risks, enhancing competitive advantages, ensuring compliance with high-quality standards, and achieving long-term sustainable development goals.

其中，2023年11月17日，由公司多部门组成的专业团队，对新华三技术有限公司杭州未来工厂进行了实地参观考察交流，通过此次考察交流，我们得以全面深入地了解产品的研发生产流程、质量控制体系、包装发运机制以及售后服务状况，从而进一步强化双方企业的互信关系，共同推动了协同发展。

On November 17, 2023, a professional team composed of employees from multiple departments of the Company visited the Future Factory of Hangzhou New H3C Technologies Co., Ltd. Through this on-site visit and exchange, the team gained a comprehensive understanding of the product development and production process, quality control system, packaging and shipping mechanisms, and after-sales service conditions, further strengthening mutual trust between the two companies and

promoting collaborative development.



展厅  
Exhibition Hall



自动化产线  
Automatic Production Line

### 案例 3: 公司配套屏柜厂辅导提升

#### Case 3: Coaching to Improve the Performance of a Company's Supporting Screen Cabinet Factory

公司建立战略导向、目标导向、问题导向三种质量帮扶方式，密切监测来料检验、生产过程、现场调试、现场运行环节质量表现，针对潜力供应商，深入供应商的厂内生产过程，重点从体系成熟度、生产流畅性、质量统计分析、问题改进有效性等方面进行辅导，不断推动供应商开展质量改善，提升自动化、信息化水平，增强供应商质量内生动力。

NARI-Relays has established three quality assistance methods: strategic orientation, goal orientation, and problem orientation. It closely monitors the quality performance in areas such as incoming inspection, production processes, on-site commissioning, and on-site operations. For potential suppliers, the Company provides in-depth guidance by analyzing the supplier's in-house production processes, focusing on system maturity, production efficiency, quality statistical analysis, and the effectiveness of problem improvements. This continuous support drives suppliers to implement quality enhancements, upgrade automation and informatization levels, and strengthen their internal quality motivation.



现场交流辅导

**On-site Communication Guidance**



自动化产线升级

**Automatic Production Line Upgrade**

## 2.加强合作交流

### 2. Strengthen Cooperation and Communication

技术创新与产业化的高质量发展离不开人才培养，南瑞继保大力践行培育卓越工程师的使命与担当，与多所高校进行多资源共享，形成高校向企业输送急需人才，优秀人才扎根在专业领域持续成长，最终向母校反哺的良性闭环。

The high-quality development of technological innovation and industrialization cannot be achieved without talent cultivation. NARI-Relays actively fulfills its mission of nurturing outstanding engineers by collaborating with multiple universities to share resources. This partnership aims to supply urgently needed talents to enterprises, enabling these exceptional individuals to grow continuously in their professional fields and ultimately give back to their alma mater, thereby creating a virtuous cycle.

#### 校企合作

##### School-Enterprise Cooperation

- 项目合作：在电力电子智能装备、大电网系统分析、电力现货市场等多个国家高新技术领域与高校技术团队深度合作，共同申报了国家级和国网南网公司科技项目，为在校生提供参与行业前沿技术研究的渠道。

Project Collaboration: NARI-Relays engages in deep collaboration with university technical teams across multiple high-tech fields, including intelligent

equipment for power electronics, analysis of large power grid systems, and electricity spot markets. This partnership leads to joint applications for national-level technology projects with the State Grid Corporation of China (SGCC) Southern Power Grid Company, providing students with valuable opportunities to participate in cutting-edge industry research.

- 双导师制：搭建在校生与行业权威专家间的直接沟通桥梁，企业建立“双导师制”研究生联合培养制度。南瑞继保与多个高校形成了成熟的双导师制度，有力培养了研究生的职业判断力和实务操作能力。

Dual Mentor System: Establishing a direct communication bridge between students and industry experts. The Company implements a "dual mentor system" for joint graduate training. NARI-Relays has formed a mature dual-mentor system with multiple universities, effectively cultivating the professional judgment and practical skills of graduate students.

- 专家讲堂：聚焦在校生的职业素养、职业目标、职业能力等培养，联合高校开展“专家讲堂”系列活动。向在校生介绍行业前沿技术及最新产品方案，积极传播卓越工程师文化，为在校生树立正确的职业发展观。

Expert Lecture: Focusing on the cultivation of students' professional qualities, career goals, and abilities, we collaborate with universities to conduct a series of "Expert Lecture" activities. These sessions introduce students to cutting-edge technologies and the latest product solutions, actively promoting a culture of excellence in engineering and helping students establish a correct career development outlook.

- 实践基地：通过产教融合培养方式，与东南大学、河海大学、南京工程学院等 23 所高校共建实践和就业基地，高校每年定期组织在校学生进入企业开展实习活动。企业根据学生研究方向匹配项目组，全流程深入参与重要环节，熟悉科研和产业化过程。

Practice Bases: Through the integration of production and education, we have established practice and employment bases with 23 universities, including Southeast University, Hohai University, and Nanjing Institute of Technology.

Each year, universities organize internships for their students within enterprises. Enterprises match project teams according to students' research fields, enabling them to participate deeply in critical stages and become familiar with the processes of scientific research and industrialization.

**案例：南瑞继保成功举办 Enlit Africa 2023 南非电力能源展**

**Case: NARI-Relays Successfully Hosts Enlit Africa 2023**

2023年5月16-18日，由南非电力公司（ESKOM）和南非工贸部（DTI）联合举办的第21届非洲电力能源展（Enlit Africa 2023），在南非开普敦国际会展中心成功举办，该展会是非洲地区最大的能源、电力和公共事业展会，涉及发电、输配电、智能表计、新能源发电、储能、水资源管理等多个领域，来自70个国家和地区的200余家企业参展。这也是非洲持续时间最长、规模最大、参与人员等级最高（国家能源部长、电力公司总裁、CEO）、影响力最深远的一次展会。南非电力展 Power-Gen 及南非公共事业周 AUW 自2019年起两展合一，全新升级为南非电力能源展 Enlit Africa，覆盖电力行业全产业链。该展是非洲地区最大最专业的电力能源盛会，它把南非及西非、中非国家采购商汇聚在一起，解决撒哈拉以南的非洲地区的电力行业的需求问题。

The Enlit Africa 2023, co-organized by ESKOM and the Department of Trade and Industry (DTI) of South Africa, took place at the Cape Town International Convention Centre from May 16 to 18, 2023. This event is the largest energy, power, and utilities exhibition in Africa, covering diverse sectors such as power generation, transmission and distribution, smart metering, renewable energy, energy storage, and water resource management, with participation from over 200 companies across 70 countries and regions. Enlit Africa is notable for being the longest-running, largest in scale, and most influential exhibition in Africa, attracting high-level participants, including energy ministers and CEOs of power companies. Since 2019, the South Africa Power-Gen and African Utility Week (AUW) have

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merged into this comprehensive event, encapsulating the entire power industry value chain. This exhibition is the largest and most professional power energy event in Africa, bringing together buyers from South Africa, West Africa, and Central Africa to address the needs of the power industry in sub-Saharan Africa.

Enlit Africa 2023 展会是南瑞继保第一次参展，向非洲以及全球市场展示南瑞继保电力智能化解决方案，即保护控制系统、直流及电力电子、构网储能及新型电力系统解决方案、系统设计咨询服务等。

This was NARI-Relays' inaugural participation, showcasing its intelligent power solutions to the African and global markets, including protection and control systems, DC and power electronics, grid energy storage, new power system solutions, and system design consulting services.

展会期间，国家电网驻非办主任、全球能源互联网发展合作组织驻非办、非电协 APUA 主席、莫桑比克 EDM、南非电网公司 ESKOM 、尼日利亚输电公司 、乌干达电力公司 UEDCL、马拉维国营电力公司、肯尼亚 KPLC、纳米比亚电力管理局、赞比亚 ZESCO、南非各市政电力公司、新能源开发商及集成商的领导和专家们来到我司展台参观并进行深入交流，对我司构网储能技术及解决方案表现出浓厚的兴趣及强烈的后续加深交流合作意愿。

During the exhibition, key figures such as the Director of the SGCC's African Office, representatives from GEIDCO's African Office, the Chairman of APUA, and leaders from various national utilities including Mozambique's EDM, South Africa's ESKOM, Nigeria's Transmission Company, Uganda's UEDCL, Malawi's State-owned Power Company, Kenya's KPLC, Namibia's Electricity Control Board, Zambia's ZESCO, and various municipal power companies in South Africa, as well as leaders and experts from new energy developers and integrators, visited our booth. They engaged in in-depth discussions and expressed significant interest in our grid-forming energy storage technology and solutions, indicating a strong willingness to deepen cooperation through future exchanges.



### 案例：南瑞继保助力南非最大光储电站顺利运行

#### **Case: NARI-Relays Supports Smooth Operation of South Africa's Largest Solar Energy Storage Power Station**

2023年12月11日，由全球领先的可再生能源制造商 Scatec 投资建设的 283.5MW/1.14GWh Kenhardt 电站，正式向南非国家电网供电。本次南瑞继保提供全套交流侧解决方案，共计 90 套 3.15MW 33kV 升压一体机。作为南非新能源标杆项目，Kenhardt 电站对应用技术和产品性能提出了极高的要求。我们南瑞继保以其稳定可靠的产品质量、高效及时的调试交付以及卓越的技术实力赢得了客户的高度赞誉。该电站的顺利投运，将每天向南非国家电网提供 MW 级可调度电力，在保障南非千万家庭稳定用电的需求同时，还有效的缓解了因电力短缺导致的大规模停电问题以及能源结构中对煤炭的依赖问题。未来，我们南瑞继保将继续以优质可靠的产品赋能全球零碳绿色梦想，

用清洁能源点亮千家万户。

On December 11, 2023, the 283.5MW/1.14GWh Kenhardt power plant, developed by the global leader in renewable energy manufacturing, Scatec, officially began supplying power to the national grid of South Africa. NARI provided a comprehensive solution for the AC side, delivering a total of 90 sets of 3.15MW 33kV boosting integrated machines. As a benchmark project for new energy in South Africa, the Kenhardt power station demands high standards in technology application and product performance. Thanks to its stable and reliable product quality, efficient and timely commissioning, and exceptional technical expertise, NARI-Relays has received high praise from customers. The successful operation of this power station will supply megawatt-level dispatchable power to South Africa's national grid daily, ensuring a stable electricity supply for tens of millions of households. Moreover, it effectively alleviates issues related to large-scale power outages caused by shortages and reduces the energy sector's dependence on coal. Looking ahead, NARI-Relays will continue to empower the global zero-carbon green dream with high-quality, reliable products, illuminating millions of households with clean energy.



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调度系统是电力系统运行的核心，尼日利亚国调项目的实施，能够帮助

尼日利亚电网公司协调和管理电力生产，可以有效解决长期以来困扰尼日利亚电力系统的电力供需不平衡，电能质量不稳定，电力故障频发的诸多问题，对提高系统运维的可靠性和保障电力系统稳定运行具有重要作用，可以使当地居民用上更可靠的电力，惠及千家万户。

The scheduling system is the core of power system operations. The implementation of the National Dispatch Project in Nigeria will assist the Nigerian Power Grid Company in coordinating and managing electricity production. This initiative effectively addresses long-standing issues such as power supply-demand imbalance, unstable power quality, and frequent outages, significantly enhancing the reliability of system operations and ensuring stable power supply. As a result, local residents will gain access to more reliable electricity, benefiting thousands of households.



### 案例：南瑞继保首个英国储能项目顺利交付

#### **Case: NARI-Relays Delivers First Energy Storage Project in the UK**

英国储能电站为南瑞继保首个欧洲大容量、高标准储能项目，装机容量100MW/100MWh。南瑞继保依托多年电力系统的技术积累，为项目提供成套交流侧解决方案，包括储能变流器（PCS）、协调控制器（PMS）、能量管理系统（EMS）等核心产品。

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The UK energy storage station is NARI Relays' first large-capacity, high-standard energy storage project in Europe, with an installed capacity of 100MW/100MWh. Leveraging years of technological expertise in power systems, NARI-Relays provided a complete solution for the AC side, including core products like storage converter systems (PCS), coordinated controllers (PMS), and energy management systems (EMS).

在英国市场，PCS 必须具备英国 G99 认证，G99 认证仅仅是条款说明便长达 500 页。相较于友商 6 个月的认证周期，留给我公司的时间却仅仅只有 2 个月，对此，依托行业领先的 PCS 性能优势，公司积极协调 PCS 样机生产，与认证机构实时沟通测试进度，全力保障认证工作。

In the UK market, PCS must meet the stringent G99 certification requirements, which entail a lengthy 500-page document. While competitors typically have six months for certification, NARI-Relays had only two months. To meet this challenge, the Company coordinated the production of PCS prototypes and maintained real-time communication with the certification body to ensure timely testing.

项目现场调试阶段，英国业主单位、调试单位提出了更为苛刻的产品测试要求，对此，项目组识别里程碑节点，梳理现场测试计划，在公司强有力的团队支撑下，有序开展产品静态测试、并网性能测试、英国调度接管测试等，项目解决方案最终顺利通过英国电网适应性测试，各项性能指标试验结果优异，获得业主高度评价！

During the on-site commissioning phase, UK owner unit and commissioning unit imposed rigorous testing requirements. The project team identified key milestones and streamlined the testing plan. Supported by a dedicated team, they conducted static tests, grid connection performance tests, and UK dispatch takeover tests. Ultimately, the project solution passed the UK grid adaptability test with excellent performance results, receiving high praise from the client.

2023 年 11 月 30 日 11 时，项目顺利移交调度中心，正式投入商业运行，标志着我公司首台套欧洲大容量储能项目正式投运！

On November 30, 2023, at 11:00 AM, the project was successfully handed over to

the dispatch center and officially commenced commercial operation, marking NARI-Relays' first large-capacity energy storage project in Europe entering operation!



### 3.引领行业发展

#### 3. Lead the Industry Development

南瑞继保公司积极牵头或参与国际、国内行业标准制定，充分发挥标准和技术规范对行业发展的支撑和引领作用，助力产业迈向高端化、智能化、绿色化的发展新阶段。公司积极参与 IEC 国际标准化组 TC95、TC38、TC22 等技术委员会的标准制定工作，牵头制定发布继电保护功能、电工术语、电力电子水冷系统等多项国际标准。作为电力行业继电保护标委会秘书处承担单位，组织行业内权威专家，牵头修订继电保护专业基础性、统领性标准《继电保护和安全自动装置技术规程》（GB/T14285-2023）。

NARI-Relays actively takes the lead or participates in the formulation of international and domestic industry standards, fully utilizing the supporting and guiding role of standards and technical specifications in industry development. This initiative aids the industry in advancing towards a new phase characterized by high-end, intelligent, and green development. The Company engages in the standardization efforts of IEC international committees such as TC95, TC38, and TC22, spearheading the

development and publication of several international standards, including those for relay protection functions, electrical terminology, and power electronic watercooling systems. As the secretariat for the Relay Protection Committee in the Power Industry, NARI-Relays organizes authoritative industry experts to lead the revision of the fundamental and overarching standard, "Technical Code for Relaying Protection and Security Automatic Equipment" (GB/T14285-2023).

### 数读继保

#### Data on NARI-Relays

- 2023 年，牵头和参与国家标准 1 项，行业标准 3 项

In 2023, NARI-Relays led and participated in the formulation of one national standard and three industry standards.

截止至 2023 年底参编起草国标、行标等外部标准共 26 项

By the end of 2023, the Company had compiled and drafted a total of 26 external standards, including national and industry standards.

标准名称 Standard Name	标准级别 Standard Level	标准号 Standard Number	参与情况 Participation
配电网分布式保护技术规范 Technical Specification for Distributed Protection in Distribution Network	行业标准 Industry standard	DL/T 2645-2023	牵头 Lead
精准切负荷安全稳定控制系统技术规范 Technical Specification for Security and Stability Control System of Accurate Load Shedding	行业标准 Industry standard	DL/T 2648-2023	牵头 Lead
串联变压器继电保护技术导则 Guide for Protection Relaying of Series Transformer	行业标准 Industry standard	DL/T 2649-2023	参与 Participate
蜂窝纸板箱	国家标准	GB/T 31269-	参与

Honeycomb Fiberboard Boxes	National standard	2023	Participate
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2023年11月21日，国家标准《继电保护信息规范》工作组第一次会议在嘉兴召开，南瑞继保公司作为标准主要参编单位派多位专家参会。

On November 21, 2023, the first meeting of the national standard "Protection Relay Information Specification" working group took place in Jiaxing. NARI-Relays, as a primary contributor to the standard, sent experts to participate in the meeting.

### (三) 关怀社区发展

#### (III) Care for Community Development

南瑞继保多年来持续投入社会公益事业，积极、主动、热忱地承担社会责任，参与公共服务、支持乡村振兴、开展公益活动，坚持发展成果与社会共享，携手公众创建和谐社会，筑梦美好生活。

NARI-Relays has been actively engaged in social welfare for many years, embracing social responsibilities with enthusiasm and initiative. The Company participates in public services, supports rural revitalization, and conducts charity activities, aiming to share development benefits with society and work together with the public to create a harmonious community and build a better life.

#### 1. 保障电力供应

#### 1. Ensure Power Supply

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南瑞继保扎实履行电力保供责任，建立由各级安质部门牵头、多专业协同的电力保供工作机制，组建专家骨干团队，主动认领保电任务，高质量支撑重大活动保电和迎峰度夏（冬）电力保供。同时，公司全力参与抗震救灾、雨雪冰冻灾害保供电，确保极端情况下能够保障电力稳定可靠供应。

NARI-Relays has effectively fulfilled its responsibility for ensuring power supply by establishing a power supply guarantee mechanism led by safety and quality departments at all levels, and coordinated across multiple specialties. An expert core team has been formed to proactively undertake power supply tasks, providing high-quality support for major events and managing peak electricity demand in summer and winter. Additionally, the Company is fully committed to earthquake relief efforts, ensuring power supply during rain, snow, and ice disasters to guarantee stable and reliable electricity in extreme situations.

**案例：南瑞南瑞继保为第 19 届（杭州）亚州运动会提供电力保障**

**Case: NARI-Relays Guarantees Power Supply for the 19th Asian Games Hangzhou**

2023 年 9 月 28 日至 10 月 8 日，第十九届杭州亚运会成功举办，作为赛事举办区域供保电设备最核心的供应商，南瑞继保成立了由 40 余名保障人员组成的强大保电小组，秉承“创造价值、服务社会”的责任担当，坚持“最高标准、最强组织、最严要求、最实措施、最佳状态”的“五最”要求，坚守一线、冲锋前沿，24 小时在岗，零延时响应处理问题，最终保障亚运会实现“设备零故障、客户零闪动、工作零差错、服务零投诉”的“四零”目标，彰显了国电南瑞的担当与实力，展现了国电南瑞人锲而不舍、精益求精的风采。

The 19th Asian Games in Hangzhou was successfully held from September 28 to October 8, 2023. As the core supplier of power protection equipment in the event hosting area, NARI-Relays established a robust power supply team consisting of over 40 personnel. Committed to the responsibility of "creating value and serving society", the team adhered to the following requirements: "highest standards, strongest organization, strictest requirements, most practical measures, and best condition". NARI Relays' team remained on the front lines, providing 24-hour

support and responding to issues without delay. Ultimately, they ensured the Asian Games achieved the "four zeros" goal: "zero equipment failures, zero customer complaints, zero errors in work, and zero service complaints". This accomplishment showcases the commitment and capability of NARI Group, reflecting the perseverance and excellence of its employees.



应急指挥暨电力保障平台

Emergency Command and Power Assurance Platform

## 2.推进乡村振兴

### 2. Promote Rural Revitalization

面对农村能源革命与乡村振兴这一时代重任，南瑞继保依托自身的技术、产业和人才资源，致力于提升农村电网的智能化水平，聚焦农光互补发电项目，为全面建设社会主义现代化国家、实现乡村振兴的宏伟目标作出积极贡献。

Facing the important task of rural energy revolution and rural revitalization in this era, NARI-Relays relies on its own technology, industry, and talent resources to enhance the intelligence level of rural power grids. It focuses on agricultural photovoltaic complementary power generation projects and actively contributes to the building of a modern socialist country in all respects and the realization of the grand goal of rural revitalization.

案例：南瑞继保助力清远市佛冈县中核汇能乡村振兴农光互补光伏电站（二期）项目

**Case: NARI-Relays Supports Rural Revitalization in Fogang County, Qingyuan City with the Agricultural-Photovoltaic Complementary Solar Power Station**

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**(Phase II)**

清远市佛冈县中核汇能乡村振兴农光互补光伏电站（二期）位于佛冈县高岗镇。项目为占地面积约 3500 亩。项目建成后，农业和旅游业能给当地创造大约 150 个就业机会，旅游业的建设也能给当地旅游业发展带来附加效应。项目最大的亮点就是“农业+光伏发电+旅游”有机结合，做到“上能发电、下能种植”。

The CNNCHN Rural Revitalization Agricultural Photovoltaic Power Station (Phase II) is located in Gaogang Town, Fogang County, Qingyuan City, covering an area of approximately 233.33 hectares. Once completed, the project is expected to create around 150 job opportunities through its contributions to agriculture and tourism, with the latter also benefiting from enhanced local tourism development. The project's standout feature is the organic integration of "agriculture + photovoltaic power generation + tourism", achieving the dual goals of "generating electricity above and planting crops below".

南瑞继保为该项目提供了包括光伏配套 15MW/15MWH 储能系统、升压站自动化系统、继电保护、稳控系统、AGC/AVC 系统等关键设备，有效的保证了佛冈县电网安全稳定运行，助力了佛冈县乡村振兴工程推进工作。项目投产后，将助力当地村民增产增收，村民通过出租土地及在光伏区务工，有望实现人均年增收 6000 元以上。

NARI-Relays provided key equipment for the project, including a 15MW/15MWh energy storage system, substation automation system, relay protection, stability control system, and AGC/AVC system. This equipment effectively ensures the safe and stable operation of the Fogang County power grid and supports the rural revitalization efforts in the area. Once operational, the project will help local villagers increase their income by renting out land and working in the photovoltaic area, with the potential for an annual income increase of over 6,000 yuan per person.



佛冈县中核汇能乡村振兴（二期）150MW 农光互补光伏项目升压站全貌  
Overall View of the Voltage Boosting Station of the CNNCHN Rural Revitalization  
Project Phase II 150MW Agricultural Photovoltaic Project in Fogang County.



佛冈县中核汇能乡村振兴（二期）150MW 农光互补光伏项目光伏区  
Photovoltaic Area of the CNNCHN Rural Revitalization Phase II 150MW  
Agricultural Photovoltaic Project in Fogang County

### 3.开展公益慈善

#### 3. Engage in Public Welfare and Charity Activities

南瑞继保大力弘扬公益精神，在帮助困难群众、慰问老人、助力文体事业、普及网络安全等方面开展公益慈善，以实际行动回馈社会，营造社会文明清朗、向上向善的良好氛围。

NARI continues to promote the spirit of public welfare, conducting charitable activities in helping the disadvantaged, visiting the elderly, supporting cultural and

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sports undertakings, and promoting cyber security, to give back to society with practical actions and create a positive and uplifting atmosphere of social civilization.

### 数读继保

#### Data on NARI-Relays

- 公司员工志愿者活动参与人数 680 人次  
Employee participation in volunteer activities: 680 person-times.
- 志愿者活动时长 1360 小时  
Total volunteer hours: 1,360 hours.
- 对外捐赠总额 1059 万元  
Total donations: 10.59 million yuan.

### 案例：乡村振兴聚民心，捐赠帮扶显真情

#### Case: Rural Revitalization Unites the Community, Donations Reflect Genuine Care

西藏自治区尼玛镇玉加村由于居住分散，电网架设成本高，投资大，有 35 户处于无电状态。县、乡也没有将此情况纳入项目计划。公司出差员工了解到这个情况，及时反馈，公司以强烈的政治担当和责任使命，充分运用各种帮扶资源，心系群众办实事，向尼玛镇玉加村伸出援助之手，捐赠 35 套太阳能光伏设备价值 21.7 万元，帮助解决群众用电燃眉之急，用实际行动践行“民族团结一家亲”。

Due to the dispersed population and high cost of grid construction, 35 households in Yujia Village, Nima Town, Xizang Autonomous Region, are without electricity. This issue has not been addressed in the project plans by the county and township. Upon learning about the situation from employees on a business trip, the Company responded with strong political commitment and a sense of responsibility. It effectively utilized various assistance resources to support the community. The Company donated 35 sets of solar photovoltaic equipment worth 217,000 yuan, addressing the urgent need for electricity for the residents. This action exemplifies the principle that "ethnic unity is like a family".



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## 未来展望

### Future Prospects

2023年，南瑞继保坚守“务实、求精；协作、创新”的核心价值观，矢志不渝地将满足经济社会发展之电力需求置于首位。南瑞继保将持续致力于民生改善，为营造平稳健康的经济环境、国泰民安的社会环境、山明水秀的生态环境贡献南瑞继保的智慧与力量。

In 2023, NARI-Relays upheld the core values of "pragmatism, excellence, collaboration, and innovation", unwaveringly prioritizing the electricity needs of economic and social development. NARI Relays will continue to dedicate itself to improving people's livelihoods, contributing its wisdom and strength to foster a stable and healthy economic environment, a safe and harmonious social environment, and a beautiful ecological environment.

百尺竿头思更进，策马扬鞭自奋蹄。南瑞继保将以新质生产力为高质量发展注入强大动力，坚定不移地贯彻国家能源安全战略和新发展理念，积极践行“双碳”目标要求，以科学的态度和高度的责任感谋划企业未来发展。公司将全面助力新型电力系统建设，推动企业实现高质量、稳健、长远的发展。南瑞继保愿与各利益相关方携手共进，共同迈入新时代中国电力能源发展的新阶段，砥砺前行，共创辉煌未来，实现共赢发展的美好愿景。

Reach for greater heights and gallop forward with determination. NARI-Relays will inject strong impetus into high-quality development with new quality productive forces, steadfastly implement the national energy security strategy and new development philosophy, actively pursue the requirements of the "carbon peak and carbon neutrality" goals, and plan its future development with a scientific attitude and a high sense of responsibility. The Company will fully support the construction of the new power system, promoting enterprises to achieve high-quality, stable, and long-term development. NARI-Relays is committed to collaborating with all stakeholders to embark on a new phase of development in China's power and energy sector. Together, we will forge ahead, create a brilliant future, and achieve a shared vision of win-win development.

## 附录

### Appendix

#### 关键绩效

#### Key performance

议题		指标	单位	2021年	2022年	2023年
Topic		Indicators	Unit	2021	2022	2023
治理 绩效 Governance performance	公司治理 Corporate governance	资产总额 Total assets	亿元 RMB 100 million	141.03	139.25	170.13
		营业收入 Operating revenue	亿元 RMB 100 million	118.63	133.86	152.88
		利润总额 Total profit	亿元 RMB 100 million	10.60	11.86	8.56
		纳税总额 Total tax paid	亿元 RMB 100 million	2.72	4.55	3.92
	创新与 研发 Innovation and R&D	研发投入 R&D investment	亿元 RMB 100 million	4.40	4.54	5.06
		承担国家重点科研项目 National key research projects undertaken	项 /	0	0	1
		发表核心论文 Core papers published	篇 /	3	14	12
	获得授权专利	项	329	544	279	

		Authorized patents obtained	/			
		授权发明专利 Granted invention patents	项 /	208	410	199
		获得软件著作权 Software copyrights obtained	项 /	32	33	47
	信息安全 Information security	已证实的信息安全泄 漏事件数量 Number of confirmed information security incidents	件 /	0	0	0
环境 绩效 En vir on me nta l Per for ma nc e	环境管 理体系 Environ mental manage ment system	环保投入 Environmental protection investment	万元 RMB ten thousand	72.50	92.50	172
	能源管 理 Energy manage ment	用电量（火电） Electricity consumption (thermal power)	万千瓦 时 10,000k Wh	1660.14	1585.36	1811.25
		用电量（光伏发电） Electricity consumption (photovoltaic power generation)	万千瓦 时 10,000k Wh	252.88	254.40	228.19

		天然气消耗量 Natural gas consumption	万立方米 10,000 m <sup>3</sup>	14.82	14.43	17.51
		蒸汽量 Quantity of steam	吨 Ton	16704	17877	17519
		总能耗 <sup>3</sup> Total energy consumption	吨标煤 Ton of standard coal	3798.75	3813.03	4099.22
		能源强度 Energy intensity	吨标煤/ 万元 Ton of standard coal per million RMB	3.10	3.0	3.02
	水资源管理 Water resources management	耗水量 Water consumption	万吨 10,000 tons	18.56	19.48	21.35
		耗水强度 Water consumption intensity	吨/万元 Tons per million RMB	0.13	0.15	0.14
	废弃物管理 Waste management	废水排放量 Wastewater discharge	万吨 10,000 tons	14.09	13.92	15.19

<sup>3</sup> 依据 GB/T2589-2020 标准折算。

Converted according to the GB/T 2589-2020 standard.

manage ment	危险废弃物生产量 Hazardous waste generation volume	吨 Ton	8.28	9.42	13.96
	危险废弃物转移量 Hazardous waste transfer volume	吨 Ton	9.13	9.41	9.24
	一般废弃物产生量 General waste generation volume	吨 Ton	137.28	137.28	137
	一般废弃物处置量 General waste disposal volume	吨 Ton	137.28	137.28	137
应 对 气 候 变 化 Addressi ng climate change	温室气体排放量（范 畴 1+2） <sup>4</sup> Greenhouse gas emissions (Category 1+2)	吨 CO <sub>2</sub> e Unit: Tons of CO <sub>2</sub> e	14931.06	16452.4 2	15671.1 1
	温室气体排放量（范 畴 1） GHG Emissions (Category 1)	吨 CO <sub>2</sub> e Unit: Tons of CO <sub>2</sub> e	5285.66	5624.94	5586.07
	温室气体排放量（范 畴 1+2） GHG Emissions (Category 1+2)	吨 CO <sub>2</sub> e	9645.40	1086.48	10085.0

<sup>4</sup> 不包含范畴三其他温室气体排放量。公司聚焦电力二次及信息通信领域，服务国家电力系统安全稳定，客户体量庞大，难以统计范围三排放量，但公司积极主动把握发展机遇，全力支持服务新型电力系统建设，推动能源低碳转型。

Excludes emissions of other greenhouse gases in Category 3. The Company focuses on secondary power and information communication, serving the national power system's safety and stability. With a large customer base, quantifying Category 3 emissions is challenging, but the Company actively seizes development opportunities, fully supports the construction of new power systems, and promotes the low-carbon transformation of energy.

		畴 2) GHG Emissions (Category 2)	Unit: Tons of CO <sub>2</sub> e			4
		温室气体排放强度 (范畴 1+2) Greenhouse gas emission intensity (Category 1 + 2)	吨 CO <sub>2</sub> e/ 万元 Tons of CO <sub>2</sub> equivalen t per million RMB	0.0122	0.0119	0.0100
社 会 绩 效  So cia l  per for ma nc e	员 工 健 康 与 安 全  Employe e health and safety	安全投入 Safety investment	万元 RMB ten thousand	513	654	742
		安全培训 Social activities	次 Frequenc y	20	25	40
		安全培训人次 Number of participants in safety training	人次 Persons	10897	13900	14589
		人均安全培训时数 Average safety training hours per person	小时 Hours	17	18	18
		可记录工伤 Recordable work injuries	件 /	2	0	4
		严重后果工伤	件	0	0	0

	Severe work-related injuries	/			
	职业病体检人数 Number of occupational health examinations	人 Person	20	17	18
	职业病检出人数 Number of occupational disease cases detected	人 Person	0	0	0
	职业禁忌证检出人数 Number of employees with occupational restrictions	人 Person	0	0	0
	职业健康体检覆盖率 (职业危害岗位) Occupational health examination coverage rate (for occupational hazardous positions)	%	100	100	100
员工权益保障 Protection of employees' rights and interests	员工总数 Total number of employees	人 Person	1199	1393	1656
	新进员工总数 Total number of new employees	人 Person	174	265	205
	女性员工 Female employee	人 Person	122	147	179
		%	10.2	10.6	10.8

	少数民族员工 Ethnic minority employees	人 Person	25	29	43
		%	2.1	2.1	2.6
	女性管理者 Female managers	人 Person	3	4	6
		%	2.1	2.4	3.2
	劳动合同签订率 Labor contract signing rate	%	100	100	100
	社保覆盖率 Social security coverage rate	%	100	100	100
	员工满意度 Employee Satisfaction	%	90.1	93.4	98.5
员工流失率 Employee turnover rate	%	3.7	2.3	1.8	
供应链 管理 Supply chain manage ment	供应商总数 Total Number of Suppliers	家 /	1745	2017	2117
	报告期内审查的供应商数量 Number of suppliers reviewed during the reporting period	家 /	663	871	940
	因不合规被中止合作的供应商数量 Number of suppliers suspended due to non-	家 /	0	0	0

		compliance				
客 户 服 务	客户满意度 Customer Satisfaction	%	9.89	9.91	9.92	
Custome r service	投诉解决率 Complaint resolution rate	%	100%	100%	100%	
社 区 贡 献 与 影 响	公益捐赠总额 Total amount of charitable donations	万元 RMB ten thousand	1015.22	1056.99	1059.64	
Commun ity contribut ions and impact	员工志愿者活动时长 Employee volunteer activity duration	小时 Hours	1850	1930	1360	
	员工志愿者活动参与 人数 Number of employees participating in volunteer activities	人次 Persons	1150	1368	680	

## 指标索引

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## 意见反馈

### Feedback

尊敬的读者：

Dear reader:

您好！

Hello!

非常感谢您在百忙之中阅读本报告，为了改进报告编制工作，提升南瑞继保的 ESG 管理与实践能力，我们特别希望倾听您的意见和建议，请您不吝赐教！

Thank you for taking the time to read this report. To improve our reporting process and enhance NARI-Relays' ESG management and practices, we greatly value your feedback and suggestions. Your insights would be highly appreciated!

1.您属于以下哪类利益相关方？

1. Which category of stakeholder do you belong to?

政府人员 监管机构 股东和投资者 员工

Government Officials Regulatory Agencies shareholders and Investors

Employees

客户 供应商及合作伙伴 社区居民 其他

CustomerSupplier and PartnerCommunity ResidentsOthers

2.您对本报告的总体评价是？

2. What is your overall evaluation of this report?

好 较好 一般 较差 差

ExcellentGoodAverageBelow averagePoor

3.您认为本报告所披露的 ESG 信息质量如何？

3. What do you think of the quality of the ESG information disclosed in this report?

高 较高 一般 较低 低

HighRelatively highAverageRelatively lowLow

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4.您认为本报告的结构安排如何？

4. What do you think of the structure of this report?

很合理 较合理 一般 较差 差

Very reasonableReasonableAverageBelow averagePoor

5.您认为本报告的版式设计如何？

5. What do you think of the layout design of this report?

很合理 较合理 一般 较差 差

Very reasonableReasonableAverageBelow averagePoor

6.您认为本报告的可读性如何？

6. How do you rate the readability of this report?

高 较高 一般 较低 低

HighVery HighAverageLowVery Low

7.您对南瑞继保 ESG 工作和本报告的意见与建议，欢迎在此提出：

7. Please provide your opinions and suggestions on the ESG work of NARI-Relays and this report here.

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