



Nanjing Panda Electronics Company Limited Social Responsibility Report

2018

About This Report

Reporting Period

This report is the 9th CSR report released by Nanjing Panda Electronics Company Limited (NPEC). The timeframe for the information and performance mentioned in the Report is January 1, to December 31, 2018. Additional information that pre-dates the stated reporting period or present the policy and practice of Nanjing Panda Electronics Company Limited in 2019 and some practices of Panda Electronics Group Co., Ltd. are also included.

Reporting Boundary

Nanjing Panda Electronics Company Limited and our subsidiaries (see the details in chapter of "About Us— Main NPEC subsidiaries.)

Reference

In this report, "NPEC", "the Company", or "We" refer to Nanjing Panda Electronics Company Limited, and

- Electronic Equipment Company refers to Nanjing Panda Electronic Equipment Co.,Ltd.
- Information Industry Company refers to Nanjing Panda Information Industry Co., Ltd.
- Electronics Manufacturing Company refers to Nanjing Panda Electronics manufacturing Co., Ltd.
- Communications Technology Company refers to Nanjing Panda Communications Technology Co., Ltd.
- Panda XinXing Industrial refers to Nanjing Panda XinXing Industrial Co., Ltd.
- Shenzhen JingWah reffers to Shenzhen JingWah Electronics Co.,Ltd.
- Electronics Technology Development Company refers to Nanjing Panda Electronics Technology Development Company Limited

Data Sources

All information and data in this Report is from our internal official documents, statistical reports and annual report. The Board and the Directors of the Company guarantee that there are no false representations, misleading statements contained in, or material omissions from this report, warrant the truthfulness, accuracy and completeness of the content of this report, and jointly and severally accept responsibility.

Compilation Conformance

This report is prepared in accordance with Appendix27: the Environmental, Social and Governance Reporting Guide of Hong Kong Exchanges and Clearing Limited, "Notice on Strengthening Listed Companies' Undertaking of Social Responsibilities and Notice on Further Improvement of Information Disclosure of Poverty Alleviation by Listed Companies released by Shanghai Stock Exchange. The report also refers to the GRI Sustainability Reporting Standards, GB/T 36001-2015 Guidance on Social Responsibility Reporting and Electronic Industry Code of Conduct (EICC 5.1).

Report Format

This report is available in the electronic version and you can visit our official website (http:// www.panda.cn) to read this report. For any question or suggestion about this report, please send us an email to dms@panda.cn or call us at (86 25) 84801144.



Contents

01 Message from the Senior Management

03 About Us

07 Strategy and Governance

- 08 Corporate Strategy
- 09 Corporate Governance
- 11 Risks Management and Compliance
- 12 Information Security
- 12 Intellectual Property
- 13 Innovation Management
- 14 Party Building

15 Social Responsibility Management

- 16 Social Responsibility Management System
- 17 Materiality Analysis
- 18 Stakeholder Engagement
- 19 Keeping Up with the Trend: Serving Society with Professional Advantages
- 21 Intelligent Manufacturing
- 22 Smart city
- 24 Electronics Manufacturing Services

25 Making Joint Efforts: Cooperating with Stakeholders for More Values

- 27 Improving Customers' Experience
- 33 Facilitating Employees' Growth
- 47 Protecting Natural Environment
- 51 Supporting Industry Development
- 56 Engaging in Community

59 Appendixes

- 59 Content Index of ESG Reporting Guide
- 62 Reader Feedback

Message from the Senior Management

The new era opens up new prospects and a new We promoted responsible procurement, prioritized beginning calls for new accomplishments. The raw materials that have low environmental impact, year 2018 kicked off NPEC's efforts to adapt to the and shared our technology and experience in requirements of the new era, deepen reform and environmental protection to encourage more suppliers and other partners to pay attention to environmental innovation, and promote high-quality development. Under the leadership of the Board of Directors, protection and take actions accordingly. We also held many public welfare activities, calling for more public together with the hard work of all employees, and stakeholder engagement, we have achieved attention and participation in environmental protection good results in terms of business development, campaigns for the sustainable development of environmental protection, and social contribution. the earth. In 2018, the Company carried out 12 environmental self-inspections and avoided one We open a new chapter of development by environmental pollution incident, and no major environmental accidents occurred. focusing on our corporate strategies. Committed to

innovation, we focused on intelligent manufacturing, smart city and electronic manufacturing services, We share our harmonious development fruits by continued to strengthen research and development contributing to the society. NPEC always keeps in mind the new expectations of the people in the new and increased investment, thus actively promoting industrial transformation and upgrading for highera. Therefore, based on our professional advantages, quality development. In the field of intelligent we give back to the society and make continuous manufacturing, we developed the system integration contribution to meeting the people's needs for a services of smart manufacturing for core equipment better life. We rely on the advantages of standardized and smart factory and completed the R&D work management of state-owned enterprises to of 0.6 meters high precision and 165kg general comprehensively protect the basic rights and interests industrial robot, LCD glass factory intelligent assembly of employees, build a clear career development path and care for employees' physical and mental health system, industrial robot operation and maintenance as well as work-life balance, so that every employee management platform, etc., which made us able to can benefit from and grow in a healthy and safe provide customized intelligent manufacturing solutions for customers. In terms of smart cities, we devoted working environment and realize their value. In 2018, we further improved the employee remuneration great efforts to the core technologies of intelligent transportation, artificial intelligence, smart home, system and wage increase mechanism to achieve an unmanned vehicles, etc., and initiated the first issuing overall income increase of 9.7% for all employees. In of QR code of the subway company and a third-May 2018, we officially implemented the enterprise party payment company in China. We generated new annuity plan to ensure that employees can live a products such as the IoT (Internet of Things) voice good life after retirement. We also paid attention to control terminal and the central control platform for social needs, actively communicated with communities, smart home system based on artificial intelligence. and carried out diversified activities such as targeted and the in-vehicle portable PV energy storage system. poverty alleviation, donation for students from poor Regarding electronic manufacturing services, we families, volunteer services, and support for vulnerable constantly searched for new markets and customers, groups. We gave back to the society with concrete leveraging our superior technologies to provide actions to the best of our ability for the good of social customers with high-quality services and better meet development. In 2018, we distributed more than RMB their needs. In 2018, the Company was selected 1.2 million of relief funds, student grants, and donations into the list of "Pilot Industrial Enterprises for Brand to facilitate the building of a harmonious community and Cultivation" by the Ministry of Industry and Information the improvement of people's livelihood. Technology. In the intelligent transportation sector. we won the bid of eight projects worth over RMB 1.4 In 2019, we will continue to adhere to the philosophy billion including Nanjing Metro Line 7 and Chengdu of sustainable development, promote corporate Metro Line 5 and our rail transportation AFC business transformation and upgrading and pursue high-quality took the largest share of the domestic market. development. We will give full play to our innovation capability and technological advantages and work We safeguard our green home by protecting together with our partners to create a happy and the environment. NPEC always acts upon the bright future in a more responsible way.

We safeguard our green home by protecting the environment. NPEC always acts upon the development philosophy of harmonious coexistence between man and nature and strives to reduce the environmental load caused by our business operations. we took actions to reduce emissions and improve management of hazardous and nonhazardous waste, energy, and water resources.



Xia Dechuan Executive Director and General Manager

About Us

Nanjing Panda Electronics Company Limited is a core company within China's electronics industry. It was founded in April 1992 solely by Panda Electronics Group Co., Ltd., the cradle of China's electronics industry. With its shares listed on the Hong Kong Stock Exchange and Shanghai Stock Exchange respectively in May and November 1996, the Company was first to issue A+H shares in domestic electronics information industry.

Focusing on intelligent manufacturing, smart city and electronic manufacturing services, we develop the system integration services of smart manufacturing for core equipment and smart factory and vigorously promote the four core businesses of smart city Intelligent Transportation, Safe City, Intelligent Building and Information Network Equipment We also engage in developing electronic manufacturing services with first-class supply chain management capabilities to realize intelligent, flexible, lean manufacturing. Being proactive in international cooperation, we have established several famous joint ventures with L M. Ericsson Company from Sweden. We have also formed a comprehensive technical innovation system with four state-level engineering (technology) centers, one state-level post-doctoral workstation and nine provincial & municipal-level engineering (technology) centers, taking the lead in scientific research and development in China. We have passed the ISO 9001 certification and established a thorough quality management system and an advanced enterprise management information system

We have undertaken several important domestic key projects and were awarded the National Science and Technology Progress Award and Jiangsu Provincial Science and Technology Prize for many times. As a high-tech company, we have been honored as a "Contract Honoring and Promise-Keeping" enterprise and an outstanding in Jiangsu province by State Administration for Industry & Commerce. Our main subsidiaries have been rated as high-tech enterprises or software enterprises.

By the end of 2018, NPEC has 10 subsidiaries with 3,507 employees.



Main Subsidiaries	Founding Year	Business
Electronic Equipment Company	2009	Promoting R&D of related technologies and achievement transformation with industrial robot and smart manufacturing as the development core; devoted to the cultivation and exploitation of smart manufacturing market, which have been applied in the fields of 3C electronics, flat panel display and logistics with its applicable technology.
Information Industry Company	1998	A world famous provider for intelligent transportation distribution, ticket vendor sales and checks, communications and other system solutions, equipment and core modules; a provider of smart communities, smart home programs and products; a leading domestic intelligent building system integrator.
Electronics manufacturing Company	2004	Mainly producing consumer electronics, communication equipment, medical treatment device, and new energy technologies with an annual production capacity of more than 10 million sets and mainly providing ODM services for international famous ICT enterprises
Communications Technology Company	2005	Engaged in research and development of products and systems for mobile communications, mobile internet communications, and military-civilian communications; providing customized high-tech products and engineering complete sets of equipment for users, and services such as engineering installation and maintenance.
Panda Xinxing Industrail	2009	Taking the integration of high-end service industry and advanced manufacturing as an important strategic choice for promoting the optimization and upgrading of industrial structure; providing all-round supporting and safeguarding operation services for all types of industries based on technological integration, and market demand.
Shenzhen JingWah Electronics	1980	Engaged in the R&D, manufacturing and sales of tablet computers, handheld digital TVs, voice recorders, e-bookand other IT digital products, navigator, car audio and other automotive electronic products and mobile communications and LED lighting products; other supporting business including precision molds, plastic-injection packaging, electronic components.
Electronics Technology Development Company	2011	Engaged in the development, manufacturing, sales, after-sales service and technical services of communications equipment, industrial control equipment, computers and external equipment, instrumentation, culture, office machinery, electrical machinery and equipment, fans, weighing apparatus, packaging equipment and other general equipment, environmental protection equipment, equipment of social public safety and other equipment and molds; computer software development and system integration services.

Main NPEC Subsidiaries



NPEC Headquarters Science Park in Zhongshan East Road



JingWah Electronics Manufacturing Park



2018 Key Performance

Total assets: RMB 6.185 billion, up 9.2% Ĩ $\xrightarrow{(4)}$ Operating revenue: RMB 4.501 billion, up 7.4% B Net profit: RMB **251** million, up **34.7**% Technological investment: RMB **236** million, æ: up **15**% Patents applied: 101 (53 invention patents included) Licensed patents: 87 <u>_____</u> (**18** authorized invention patents included) Customer service satisfaction: 98% Energy consumption of per operating revenue: Őĩ 0.0049 tons of standard coal/RMB 10,000,



 \bigcirc



Carbon emissions of per operating revenue: **0.03** tons/RMB 10,000, down **25**%

Safety accidents: ()



Suppliers: 2,267

Proportion of female employees: 33.7%



رج



14.72 hours

Training hours per employee :

Total voluntary services: 720 hours

Panda Electronic Manufacturing Industrial Park

Strategy and Governance

Corporate Governance

In response to China's 13th Five-Year Plan and 'Made in China 2025' strategy, NPEC upholds the values of "Innovation and Entrepreneurship for Excellence", continues to develop three core industries: intelligent manufacturing, smart city and electronic manufacturing services, and enhances its efforts to promote the transformation and upgrading of intelligent manufacturing and smart city industry through structural adjustment, quality and efficiency improvement, so as to develop synergistic advantages and scale effect and realize leapfrog development.

In 2018, according to the characteristics of our industries, we worked out special development plans such as Special Planning Scheme and Decomposition Plan for Intelligent Manufacturing During the 13th Five-Year Plan Period, Special Planning of Panda Civil Equipment Industry, Three-year Development Plan of Panda Communications, and Three-year Development Plan of Broadcasting & Television Business Department to further clarify the specific development path, objectives and safeguards of each business sector and ensure the smooth realization of our strategic objectives.

Strategic goals	key teo overall o return on invest industry-leading	
Strategic plans	Develop the system integration services of intelligent manufacturing for core equipment and smart factory	Promot busines intellige safe cit and infe equipm
Strategic	Institutional mechanism Human resources	Scie
guarantees	Entering overseas markets	

Build the company o a nationally leading nic information enterprise autonomous and controllable s, increases its brand value and e value with increasing capacity of continuously enhances and provides the ducts, equipment and system solutions of nanufacturing and smart city.

e the four core ses of smart city: nt transportation, , intelligent building rmative network

Develop electronic manufacturing services with first-class supply chain management capabilities to realize intelligent, flexible, lean manufacturing

tific and technological innovation

proved management

lerger & acquisition

Fund raising

Brand promotion

Strengthening market value management

Strategic framework

Corporate Governance

In accordance with laws and regulations such as The Company Law and The Securities Law, and the provisions of China Securities Regulatory Commission (CSRC) and Securities & Futures Commission of Hong Kong on corporate governance, standardized operation, we continuously improve the corporate governance structure, revise rules and regulations and improve risk management and internal supervision system in light of our actual situation, striving to improve the Company's standardized operation mechanism, and maintain a high standard of governance.



NPEC's Organization Structure

O Directors, supervisors, senior managers

As of the end of December 2018, the Board of Directors of NPEC is composed of nine directors, including three executive directors, three non-executive directors and three independent non-executive directors. Independent non-executive directors account for one third of the Board.



○ Board of Directors

The Board of Directors is responsible for the Shareholders' Meetings. Its main responsibilities include convening the Shareholders' Meetings and reporting, implementing the resolutions of the Shareholders' Meetings, deciding on the Company's business plan and investment plan, appointing and dismissing the general manager and senior managers of the Company, etc. The Board of Directors is composed of Audit Committee, Nomination Committee, Strategy Committee, Remuneration and Performance Appraisal Committee. They assist the Board of Directors in business and affairs management. In 2018, the Company held two shareholders' meetings, nine board meetings and eight meetings of supervisory boards.

○ Shareholder-investor relationship

NPEC continuously improves information disclosure mechanism and disclosure system in accordance with the regulatory requirements of exchanges, and maintains good interaction with shareholders and investors. The Company communicates fully with shareholders and investors through reports, telephone, Internet, fax, E-interaction and other channels, to transmit important information of NPEC's development to shareholders and investors timely, authentically, accurately and completely. In 2018, the Company issued four periodic reports and 51 interim announcements and held 10 shareholder/investor communication meetings.



Hold annual meeting and the interim shareholders' meeting during the reporting period to allow shareholders to voice and exchange their views with the board of directors.

Disclose financial performance and transactions to shareholders and interested investors through reports, announcements and circular letters.

NPEC's main communication channels with shareholders and investors

NPEC Board



Risks Management and Compliance

Strictly abiding by national and local laws and regulations including Rules of Integrity and Self-discipline of the Communist Party of China, the Supervision Law, and Rules on Integrity of Executives of State-Owned Enterprises, The Company attaches importance to anti-corruption and avoids compliance risks so as to guarantee the sustainable, healthy and stable development.

In 2018, NPEC revised five regulations, namely, Regulations on Supervision Work, Measures for Accountability for Discipline Violation, Regulations of the Commission for Discipline Inspection, Implementation Measures for Fostering Clean Governance and Integrity Talk System. Also, the Measures for Supervising the Bidding of Major Projects, Measures for Clue Management in Discipline Inspection and Supervision, Provisions on the Integrity of Managers at Intermediate Level or Higher, Measures for Evaluation and Implementation of Discipline Inspection and Supervision Work and Rules for Discipline Inspection and Supervision Work Assessment were formulated. The Company conducted 225 time of talk throughout the year, including 73 times of integrity talk prior to appointment, 148 times of warning talk, and 4 times of admonishing conversations. One hundred sixty employees from key positions such as procurement and marketing received relevant integrity education and training.

- We establish and improve the current system in accordance with the requirements of the CPC central government and the higher management and ensure that the system is fully implemented.
- We open communication and reporting channels and strictly report, handle, verify, review and deal with the complaints.
- We strengthen special supervision on major decisions, important appointments. arrangements for major projects, the management of large-value funds, construction of major projects and major tendering projects.

• We organize employees to study regulations on anti-corruption through educational film, class trainings, etc.

 We conduct various forms of anti-corruption education such as anti-corruption knowledge contest and experience sharing.

 All the middle managers of NPEC sign Commitment to Incorruptible Practice. Employees in key positions of the company have signed an integrity letter.

Key anti-corruption initiatives



Integrity talks among newly appointed and newly recruited mid-level managers

NPEC continues to strengthen the comprehensive risk management system and regularly assess the effectiveness of risk management and internal control systems, thus developing formed a complete procedure and a mechanism to deal with major risks or internal control deficiencies. The Company's Board of Directors is fully responsible for setting up risk management objectives and policies, and assumes ultimate responsibility for those objectives and policies.

In 2018, we promulgated the Provisional Regulations on the Main Responsible Persons of NPEC as the First Responsible Person in Promoting Legal System that further clarifies that the main responsible persons of NPEC shall assume the responsibility to promote the legal system, comprehensively manage and controlling risks and coordinate the issues of anti-risk, laws, internal control, compliance and accountability. By establishing and improving the review mechanism, we ensure the major decisions, important systems and major contracts is 100% legal and compliant.

Information Security

and compiled and issued management documents.

Intellectual Property

NPEC sees innovation and effectiveness as the basic principle of patent application and management, and formulates the Management Measures for Patent and Copyright, to strengthen the technical patent application work, and incorporate the patent and copyright work into the scientific and technological management objectives and work systems of each subsidiary. The Information Industry Company formulated the Management Measures for Intellectual Property and other normative documents, actively integrating intellectual property management with product R&D and protecting technological innovation achievements with patent layout. The Communications Technology Company created an intellectual property management system and gained the Intellectual Property Standardization Certification. In 2018, the Company was not involved in any intellectual property infringement.

In addition, we attach great importance to protecting existing patents, intellectual property rights and trademarks. We communicate with the regulatory department of customs to expand the coverage of documented products protected by the customs intellectual property protection system and strengthen the crackdown on infringement of export products. In 2018, we handled 15 anti-counterfeiting cases and 21 cases of trademark disputes and patent invalidation.







RMB 236 million invested in R&D in 2018, an increase of **15**% over 2017



By the end of 2018, there were **710** members in the R&D team, an increase of 6.1% over 2017

A total of 17 scientific and

technological innovation

projects were implemented

in 2018, of which 1 was

awarded provincial science

and technology award and

3 were awarded municipal

science and technology

awards.

Innovation Management

Innovation is an important engine for maintaining the vitality of business development. Adhering to the principle of "Independent Innovation, High-end Leadership, Transformation and Development", we constantly improve our technological innovation system. By the end of 2018, we have established four state-level engineering (technology) centers, one state-level post-doctoral workstation and nine provincial & municipal-level engineering (technology) centers, covering major business areas. We completed the acceptance of eight national projects and the appraisal of 17 provincial scientific and technological achievements in 2018. The Company's Key Technology Project for Urban Rail Transit LTE Multi-Service Bearer Application won the 2018 China Electronic Information Industry Innovation Achievement (Innovative Technology) Pangu Award issued by China Information Technology Industry Federation.



The "three improvements" selection and acceptance meeting

- We unblock the professional development channel of technical talents and continuously improve the talent gradient construction of chief experts and chief designers, providing human resource guarantee for scientific and technological innovation.
- We introduce industry experts through project cooperation to achieve the dual improvement of their professional skills and comprehensive strength



Key measures for innovation management



In 2018, **1** grass-roots Party

organization was awarded the CEC Advanced Grassroots Party Organization

and 3 grass-roots

Party organizations were awarded the CEC-Panda Advanced Grass-roots Party Organization.



A total of 420 Partybuilding activities were held in 2018, involving 7,526 participants.



Party Building

NPEC always adheres to the principle of ensuring full and strict governance over the Party. We incorporate Party building into the Company's Articles of Association, earnestly implement the key tasks of Party building, and actively integrate it with production and management, providing guarantee for the Company's reform, development and stability. We have studied and promoted Xi Jinping's Thought on Socialism with Chinese characteristics for a New Era and the guiding principles of the 19th CPC National Congress, and launched various learning activities, such as the "meetings of criticism and self-criticism and Party lectures", Party Day activities, and special learning programs, to promote the Party members' ideological understanding and help lay a good foundation for Party building. The Company revised the NPEC Grassroots Party Organization Evaluation Measures to regulate grassroots Party organizations, and continued to carry out activities such as the Party Pioneer Action, Worker's Pioneer and Youth Civilization to strengthen Party building at the grassroots level.

Strategy and Governance Social Responsibility Report 2018

Social Responsibility Management

Married Woman

Social Responsibility Management System

700 80

Complying with the requirements of the relevant regulatory authorities, the Company discloses social responsibility information every year to further improve the transparency of our operations. In order to fully integrate social responsibility requirements into our corporate management and better meet the needs of stakeholders, we plan to systematically implement social responsibility management in accordance with relevant social responsibility standards to promote the sustainable development of the Company and society. In 2018, the Company promoted the establishment of social responsibility management system. With clear management direction and action objectives, we decomposed the key issues of social responsibility into relevant departments to guide the corresponding implementation and continuous improvement.

Materiality Analysis

The materiality analysis is the core and foundation of social responsibility management and disclosure. In 2018, considering the hot topics, national policies and industry trends and other background information, the Company comprehensively analyzed the material topics of the Company by means of interviews and questionnaires.



Stakeholder Engagement

The identification and engagement of stakeholders are the basis and prerequisite for the Company to carry out social responsibility management and practice. Stakeholder engagement facilitates us to further understand the impact of our operation and service on economy, environment and society. At the same time, listening to and responding to the needs of stakeholders also helps us to forge closer cooperation with stakeholders and contribute to sustainable development.

Stakeholders	Expectations and Demands	Communication Approaches	Response and Measures
Shareholders and investors	 Returns on investment Knowing the Company's operations 	Shareholders' meetingRegular reports	 Timely and accurately disclosing operations and major issues Following the basic principles of responsible management Sustainable returns for shareholders and paying cash dividends
government	 Law-abiding operation Paying taxes according to law Promoting employment Implementing government policies Energy conservation Resources saving Ecological protection 	 Accepting supervision Information reporting Working meeting Government- enterprise cooperation 	 Abiding by laws, regulations and policies Paying taxes on time Providing jobs Responding to the national strategies Improving environmental management Conducting targeted poverty alleviation
Customer	 Quality products and services Knowing the product and service content 	Customer satisfaction surveyCustomer service call center	 Providing safe, convenient and quality products and services Continuously improving customer satisfaction Continuous R&D investment Improving customer communication channels Product and Service Description
Employees	 Protecting employees' rights and interests Providing good welfare and development opportunities A healthy and safe working environment Enjoying the democratic rights of participation 	 Labor Union Workers' Representative Congress Employee suggestion box 	 Signing a collective contract Smooth employee promotion channel Safety and health management Equity incentives and other incentives Regular Workers' Representative Congress
Suppliers	Win-win cooperationOpen and fair principleKeeping commitments	High-level meetingSupplier ConferenceSurvey	Public procurement information, fair procurement Honoring all contracts
Community	Supporting social welfareCreating employment opportunities for the community	Volunteer platform	 Carrying out public welfare and volunteer activities
Industry	Fair competitionPromoting industry progress	 Peer cooperation University-enterprise cooperation 	 Participating in industrial activities Improving R&D capability

Stakeholder Communication and Response

Keeping Up With The Trend

Serving Society with Professional Advantages

It is an effective way to realize the sustainable development of an enterprise and the society to solve social problems by strengthening the core business ability. Thus, NPEC keeps innovating, and combines its own professional advantages with social needs to gather its superior resources to develop three core businesses of intelligent manufacturing, smart city, green and high-end electronics manufacturing (EMS), with an aim to satisfy the people's increasing needs for a better life, and contribute to the high-quality economic and social development.

PANDA 並祥



TITLET

1111

TATATA .

Intelligent Manufacturing

In recent years, China has been vigorously promoting the "Made in China 2025" strategy and major projects of intelligent manufacturing and green manufacturing. NPEC takes the initiative to give full play to the advantages of our core businesses and focuses on developing the system integration services of intelligent manufacturing for core equipment and smart factory. We provide customers with customized solutions for smart factories and constantly strive to accelerate the transformation of traditional manufacturing to intelligent manufacturing. So far, NPEC's industrial robot and complete purification plant transport and storage system have been selected as national pilot projects of intelligent manufacturing, marking us as one of the few domestic manufacturers that can provide automatic and systematic transportation solutions of purification plants, with leading technology in China.



2-



Through independent and cooperative R&D, we built the industrial Robots Platform, the "iMANUF" Intelligent Manufacturing Platform, the Artificial Intelligence Platform and the Cloud Computing / Industrial Big Data Platform to facilitate customers to achieve their dream of "smart factory"

Key businesses in the intelligent manufacturing sector



NPEC's "robots make robots" digitalized production line starts operating with 70% of automation.

Smart city

Better meeting social demands and the people's increasing needs for a better life is our eternal pursuit. NPEC has always been concerned about social demands and helped solve social problems with innovative solutions. The Company focuses on smart transportation, safe cities, smart buildings and information network equipment and aims to provide system solutions and terminals for urban modernization. With information technologies such as the new-generation Internet of Things (IoT), cloud computing and big data, we have connected buildings, public transportation and homes in cities, making cities smarter and life better.

In 2018, NPEC strengthened the R&D of new products for rail transit by focusing on the new payment technologies. We adopted the "Internet Plus" model to marry mobile communication, Internet of Things, Internet computing, artificial intelligence with traditional systems, and create smart sensing and ITC (Internet Toll Collection) application platforms, artificial intelligence-based turnstiles and other new products that are in line with future trends. NPEC's new payment technology has been applied in many lines in Nanjing, Suzhou and Hefei.

Social Demands	Our Responses	Application Cases
Transportation: Safety, convenience, high efficiency, green transportation	 Smart transportation: Building an all-round real-time smart transportation system with high efficiency, accuracy and convenience Digging out and analyzing urban transportation information to realize transportation forecasts and early warnings and more orderly transportation Establishing the Automatic Clearing Collection (ACC) Management Center and the Automatic Fare Collection (AFC) System to realize precise returns distribution Providing various smart terminal equipment of inquiry, charging, ticket purchasing and check to facilitate passengers' transportation Enabling more convenient payment through the application of contactless smart cards and e-payment mobile platforms in transportation area 	 The AFC System of Line 1, Line 2, Line 3, Line 4 of Nanjing Metro The ACC Management System of Shijiazhuang Rail Transportation
Buildings: Safe & comfortable, quick & convenient, green & energy saving living and working environment	 Smart buildings: Providing safe, highly efficient, comfortable and convenient construction environment Applying biological identification technology to security and safeguard design makes buildings safer and smart The application of the integrated management system makes control more convenient and efficient and enhances performance in energy conservation. Office automation (OA) enables higher efficiency. 	 Intelligent project of Nanjing Great Hall of the People Intelligent system of Jiangsu Tobacco Corporation
Homes: Highly efficient, convenient, comfortable and safe life experience	 Smart homes: Creating smart, highly efficient and comfortable living environment Multiple ways of controlling household equipment or executing scenario operations makes life more convenient 	
Communities: Comprehensive, convenient and inclusive community services	 Smart communities: Creating a smarter community environment Integrating the property management service system with quicker response Creating a community information service system for easier community interactions 	



As the Internet technology continues to develop, mobile payment has become a popular payment method among consumers. The Information Industry Company caters to the market demand and seizes the opportunity to enter the field of Internet payment. The company made major breakthroughs in key technology and self-developed a payment platform. On December 20, 2018, the Nanjing Metro mobile payment transformation project undertaken by the Information Industry Company was successfully completed and put into trial operation. Passengers can use Alipay QR code, UnionPay Quickpass card or mobile PAY to pass the turnstiles quickly. This means that in the future, passengers will not need to queue up for buying physical metro tickets, or to carry a bus card. All they need to do is to scan the Alipay QR code to get in and out of stations. It is a good solution to traffic congestion in the morning and evening peak period.

What Stakeholders Sav:

"Nanjing Metro AFC System Mobile Payment Upgrading Project was launched on December 26, 2018. Within a limited time, NPEC guickly put forward technical solutions, sample plans and supply solutions, giving full play to its technological advantages to achieve the early and smooth completion of the project. Thanks for NPEC's strong support for this project, and we sincerely look forward to future cooperation with NPEC for more achievement"

-Nanjing Metro

ITC creates efficiency and convenience for public travel

In April 2018, the "Forwarding Call & Face Recognition" mobile payment technology jointly developed by the Information Industry Company and the Communications Technology Company passed the test on Hefei Metro Line 2. Citizens only need to download the Forwarding Call app on their mobile phone and move the phone close to the turnstiles that can sense the app, to pass the gate guickly without opening the mobile phone interface, QR code or App. The whole process is very fast and convenient and only takes less than 0.5 seconds. In addition. the Forwarding Call app records every sum of travel fees, so that users can know the updates of their accounts at any time.



Demonstration of "Forwarding Call & Face Recognition" mobile payment

Electronics Manufacturing Services

NPEC has always been actively adhering to the strategy of innovation-driven development and strives to promote industrial transformation and upgrading. We actively develop green and high-end electronics manufacturing service to cover the whole process of including research and development, procurement, materials management, production/ manufacturing, testing and assembly, quality guarantee and warehouse exit of electronic products and develop the complete electronics manufacturing industry chain. To meet customer demand, we give full play to our technical advantages, adjust our scientific research plans in time according to market development and changes, and focus on the joint development of electronic manufacturing services with customers so as to help customers shorten product development cycle, reduce manufacturing costs and enhance product and brand influence.

In 2018, the R&D team of the Electronics Manufacturing Company cooperated with customer in developing the motherboard of human-machine interaction system. The injection-molding sector was responsible for injection molding, assembly testing and delivered assembly modules to customers. In this way, we realized industrial synergy between SMT and injection molding business, and enhanced product competitiveness and brand value of the Company. This helped us lay a foundation for long-term cooperation and made us a gualified supplier for our customer.

Self-developed intelligent display control assembly makes life smarter

In the field of smart homes, the growing popularity of smart phones and LCD touch screens have changed people's operating habits. Traditional rotary knob and segmented display screen can no longer meet people's needs, and intelligent home appliances have become a leading trend.









The Electronics Manufacturing Service (EMS) System

As a response, the Electronics Manufacturing Company independently developed touch display control assemblies with 4.3-inch and 7-inch capacitance that support a variety of external interfaces and connection modes. The built-in WIFI module can realize remote display control through an app, with a wider applicability. On this basis, the company also developed a variety of other intelligent display control assemblies, which can be applied to washing machines, air conditioners, kitchen ventilators, water heaters, electric bicycles and other products. With the cloud platform, the smart home network was created, which enables people to control a number of home appliances with their mobile phones, and realizes the information transmission between home appliances, making life more intelligent. The company has already reached an agreement with a well-known domestic home appliance company for joint development and production. The samples of the first and second generations of products have been sent for tests and the third generation is currently under development.

Making Joint Efforts

Cooperating With Stakeholders For More Values

On the path towards sustainable development, NPEC has established good relationships with stakeholders for co-existence and mutual prosperity. We make continuous efforts to enhance communication and cooperation with stakeholders and are committed to promoting value sharing and solutions to social problems, jointly building a new era for a better life with stakeholders.



Improving Customers' Experience



Strengthening Quality Management

Based on the quality principles of "technology leading, scientific management, quality upmost, customers first", NPEC has carried out systemic quality management, built the ISO 9001 Quality Management System and implemented the system in all our subsidiaries. In September 2018, our subsidiaries launched various "Quality Month" activities to enhance employees' quality awareness and quality management capabilities and improve product and service quality through measures like strengthening quality management at all links and conducting quality management training and contests.

Facing an increasingly complex business environment and economic situation, NPEC promoted lean management in 2018. We carried out the "three improvement" activities to see full-coverage, comprehensive and continuous improvement. Our lean management implementation plan incorporates lean management into the whole process of production and operation and thus continuously improved production efficiency and effectiveness. The "three improvement" project involves eight aspects, namely, technology R&D, technique, safety and environmental protection, equipment, product quality, cost saving, production process and management. The improvement results were 18% higher than last year, generating a profit of nearly RMB 10 million and achieving good economic and social benefits.

The Information Industry Company also passed the CMMI assessment in 2018, which brought the Company's software R&D management to a higher level and reduced the defect rate of software products, thus ensuring the guality of software products and enhancing our comprehensive competitiveness.

Continuous improvement leads to better performance

Waste is produced in the production process. However, if we strengthen the management of the production site and continuously improve the design process, we can create more value for the Company. During the "three improvement" activities, the Electronic Equipment Company made significant progress by carrying out the 5T181-25512 upgrading project of radiator support.

The production process of the former 5T181-25512 radiator frame has many problems. If the entire welding process involves more operators, the actual effective working hours are reduced. The actual daily capacity of the automatic full-length welding cannot meet customer's demand. In addition, The parts produced in divided production processes occupy a large floor area. All of these factors affect the daily output and production efficiency of the product.

In order to deal with this problem, the Electronic Equipment Company carried out improvement activities to reduce the area for production and the daily transfer time by re-adjusting the layout of part-making sites and replan the route of the welding robot. At the same time, the company changed the overall structure of the parts. For example, the strip-shaped parts that need welding are now integrated into one and processed by bending.

After improvement, the operators of the project was reduced from six to one, the daily output increased to 154 pieces, the area of production sites was reduced from 24 m² to 15 m², and the productivity increased by 1,490%. According to the 2018 production accounting, this improvement project will bring down the cost by RMB 320,000. Besides, the 5T181-25512 upgrading project of radiator support won the first place in the Japan Improvement Activity World Competition (China) in 2018.



Improving Customer Satisfaction

In order to improve customer satisfaction and brand loyalty, NPEC has established the Customer Relationship Management System (CRM System) and set up the Customer Relationship Committee as the top decisionmaking organization for customer service; the Vice General Manager in charge of quality serves as the Director of the Committee, and the heads of subsidiaries and departments in charge of customer relationship serve as members of the Committee.

The Customer Service Call Center provides 24-hour hotline service and also handles service complaints and application from the Company's website, e-mail, other websites and the media.

In recent years, Customer Service Call Center has also continuously strengthened staff business training, organized business backbone to participate in service management training organized by industry associations, consumer associations and quality supervision departments, in order to satisfy users and establish a good external image of the enterprise, which further enhance the staff's capability of problem solving, service skills, business skills and other aspects, increase user satisfaction, and enable users to enjoy the NPEC's high-quality services in the first time.



Protecting customers' rights and interests is an important corporate responsibility. Strictly abiding by relevant laws and regulations such as the Law of the People's Republic of China on the Protection of Consumer Rights and Interests, NPEC implements product warranty services of repair, replacement and refund and gives quickly response to various needs of customers. In order to ensure that our products and services maximally satisfy customers, we carry out customer satisfaction surveys and analyses every year to make improvement according to customers' suggestions.



On March 14, 2018, the eve of the 3.15 Consumer Rights Day, NPEC's Customer Service Call Center together with nearly 100 brand manufacturers and professional associations launched the "I Escort Your Consumption" Advisory Service. Themed with "Quality Consumption, Better Life", the campaign was jointly organized by Nanjing Municipal Bureau of Commerce, Radio Nanjing, the City Channel of Jiangsu Broadcasting Corporation, Nanjing Consumers Association as well as Nanjing Trade Association of Household Electric and Electronic Appliances.

In order to maintain and enhance NPEC's brand image, the Customer Service Call Center provided various forms of consulting services for more than 120 participants on the spot or through Internet, accepted 15 cases of customer services and dealt with three complaints from the Industry and Commerce Department.



On-site consulting services provided by NPEC's Customer Service Call Center

Strengthening Brand Promotion

NPEC pays attention to communication with external stakeholders. We cooperate with all kinds of mainstream newspapers, magazines and websites every year, and attend exhibitions of various industries to actively present our new look in product reform & development and transformation & upgrading .



NPEC participates in the Seventh China International Robot Show (CIROS 2018).

In 2018, the Company introduced NPEC's new developments through various platforms such as people.cn, China Electronics News, Nanjing Daily, Oriental Vanguard, Jinling Evening News and Yangtze Evening News. Our products were successively displayed on major renowned exhibitions, such as China Content Broadcasting Network Exhibition, China Smart City International Expo, China International Software Expo, the Seventh China International Robot Show (CIROS 2018) in Shanghai, Hong Kong Electronics Fair, World Intelligent Manufacturing Summit in Nanjing. In addition, we also hosted the "Panda Cup" national welding robot operation competition and other national competitions with significant influences in the industry, which attracted wide attention from the public and effectively improved NPEC's product competitiveness and brand influence.



NPEC presents new achievements at CCBN

In March 2018, the 26th China Content Broadcasting Network Exhibition (CCBN2018) under the theme of "New Intelligence, New Ecology, and New Experience" was held at the Beijing International Exhibition Center. It was the 10th consecutive year for NPEC's participation in CCBN. We exhibited a whole range of new solutions, including new products, new technologies and new applications of the radio and television sector, demonstrating NPEC's commitment to technological innovation and new results of integrated development achieved in the field of radio and television.

In recent years, NPEC has integrated innovative technologies such as cloud computing, big data, and the Internet. Based on the development of the national broadcasting industry, we have developed a series of new products and achieved fruitful results. Our participation in CCBN will allow the outside world to know more about the innovative development of NPEC and help further enhance our brand reputation.



PANDA MH

with Major Support from Jiangsu Province by the Department of Commerce of Jiangsu Province.

NPEC was selected into the list of "Pilot Industrial Enterprises for Brand Cultivation" by the Ministry of Industry and Information Technology.



National Radio and Television Administration inspects NPEC's exhibition booth.

In 2018, NPEC brand was awarded the Internationally Recognized Brand

Facilitating Employees' Growth

Talent is an important strategic resource for an enterprise's development and also one of our most important stakeholders. We respect the expectations and appeals of employees and build a platform for them to display their talents, maximizing their dynamism, motivation and creativity for the common growth of NPEC and the staff.

Rights and Wellbeing

In strict accordance with laws and regulations in China, such as Labor Law of the People's Republic of China and Labor Contract Law of the People's Republic of China, NPEC respects and protects employees' legal rights and interests. Insisting in fairness, transparency and openness in employment, we have formulated strict recruitment procedures and signed labor contracts with our employees according to the principle of equality, voluntariness and unanimity through consultation. We endeavors to create a diversified, fair and just working environment and treat employees equally regardless of their religion, gender, age and disability, etc. In 2018, there was no violation in child labor or forced labor in our work sites.



	Constitute
Gender	Female
Gender	Male
	Senior Management
Gender	Middle Management
	Primary-level Employees
	30 years old and below
	31-40 years old
Age	31-40 years old
	51 years old and above
	Total workforce by gende



○ Improving the welfare guarantee

NPEC implements a competitive remuneration and performance system and provides employees with basic compensation & benefit according to law and special compensation & benefit of the Company.



Multi-level Compensation & Benefits Guarantee System of NPEC

In 2018, the Company further improved the compensation system and the salary increase mechanism, aiming to gradually increase the income of employees. In order to establish a long-term incentive mechanism, the Company formulated and implemented the Detailed Rules for the Implementation of Enterprise Annuity Plan to improve the living standards of employees after retirement.

The Company also established canteens, clinics, activity rooms, supermarkets, baby care rooms, reading rooms, gymnasiums and other service venues in all industrial parks to continuously improve the welfare benefits of employees, so that all staff can fully feel the care and warmth of the "NPEC Family".



The Fourth NPEC Staff Bookstore



In 2018, the Company opened two Panda Drinks in the restaurants of Panda Electronic Equipment Industrial Park and Xingang Industrial Park.



The Company pays close attention to the life needs of employees in special positions and actively carries out caring activities such as festival visits, special subsidies and assistance allowance. NPEC Labor Union visits retired employees, on-duty employees during the Spring Festival, annual advanced employees and non-local employees, and front-line production employees during high-temperature days and provides sympathy gifts for them annually.







Visiting non-local employees

To help the employees who suffer life difficulties, NPEC Labor Union specially establishes the records for them and sets up a love fund to provide timely assistance to employees in need. In March 2018, the Company held its 16th "Love Aid Fund" raising activity in Panda Electronic Equipment Industrial Park. It received a total of RMB 722,000 from individuals and companies, which reached a new high for seven consecutive years.



"Love Aid Fund" raising activity in 2018

O Democratic communication

NPEC has established the NPEC Labor Union and the system of worker representative congress, and regularly holds the worker representative congress. Persons in charge of NPEC and our subsidiaries will report the annual work summary and work focuses in the upcoming year while the worker representatives will make democratic appraisals and feedback accordingly during the congress.

To further enhance employees' democratic engagement and protect employees' rights and interests, NPEC has annual communication with employees on key issues such as wages and labor protection, and holds consultation meetings on inspection of Collective Contract. NPEC leaders and worker representatives jointly examine the fulfillment of relevant provisions of the Collective Contract, and sign the Collective Contract for the next year according to new demands and requirements proposed by worker representatives. In 2018, the Company and our employees held a new round of equal consultation on the Collective Contract to further improve the performance appraisal and salary distribution system and pay more attention to low-income employees, allowing employees to share the achievements of corporate development, and working together to promote the sustainable and steady development of NPEC. In 2018, there were no labor disputes.



Organizing staff representative learning

Training and Development

NPEC values talent cultivation. Upholding the training concepts of all employees, full processes, all dimensions and multiple channels. NPEC has proactively cultivated a group of knowledge-based, skill-based, innovationbased and interdisciplinary talents in National Highly Skilled Talents Training Base and National Worker Educational Training Demonstration Site to further improve employees' skills and occupational guality and serve the development of the industry.

In 2018, we recruited **189**

new employees, including

127 new graduates from

universities, 62 mature

social talents. Among them,

38 are graduate students.

With the rapid development of NPEC in advanced industries such as intelligent manufacturing, we have seen stronger demand for talents. In order to ensure the smooth production and operation of the Company, we continue to seek new recruitment methods and expand recruitment channels, striving to introduce more and better talents.

We regulated recruitment channels by integrating the third-party recruitment platforms, releasing job information through H5 link and spreading job information via NPEC's official Weibo account, Wechat friends circle and other platforms.

We strengthened universityenterprise cooperation by connecting with key universities in Nanjing and organizing more 30 recruitment briefing and job fairs in universities throughout the year.

In 2018, we innovated in talent recruitment methods and expanded recruitment channels

• Promoting the development of young talents

Young talents are critical to sustaining the work in key positions and ensuring a sustainable hierarchical talent team. NPEC has formulated the Regulations on Young Talents Cultivation to select, cultivate and employ young elites from the personnel of operation management, scientific research and development, marketing and highly skilled personnel. We have also designed the Occupational Career Development Plan, and drafted the three-year and the annual cultivation plans for selected employees.

College training

correspondence learning

O Improving talents recruitment system



We created new talent recruitment model and introduced one leading talent in the power supply industry through project cooperation.



O Developing talented personnel

NPEC has established an inclusive education and training platform integrating teaching room, drill base, network platform and innovation workshop to encourage frontline employees to make innovation and profits on their posts and enhance cultivation of talents with diversified ways.



We established and improved the management mechanism for the skilled talent team. We improved the management system of the recruitment, training, and selection for skilled talents and set clear the training objectives of high-skilled personnel such as senior technicians and technicians according to the direction of the Company's industrial development, striving to foster a good environment conducive to the arowth of those talents.

We focused on "various drills" that are practical and applicable for real work and started a trend of learning skills, improving professionalism and building up capacities. The Human Resources Department and NPEC Labor Union cooperated closely in carrying out staff skill training and skill competition to cultivate and select high skilled talents.

In our base of the "Expert workshop", we encouraged project leaders to promote operation skills and scientific achievements in order to build a group of knowledge-based, innovation-based and skillbased talents.

Туре	hours(Unit: hour)
Female	14.70
Male	14.73
Senior Management	80
Middle Management	40
Primary-level Employees	13.28
All staff	14.72

Average employees training hours in 2018



Senior technician skills training course

• Strengthening training efforts: We held 363 the training of **183** newly-recruited university graduates, **37** middle-level managers and **220** senior managers.

professional titles for 1 employee and deputy

professional titles for 7employees.

• Enhancing talent promotion: 1 employee was selected Contributions to Jiangsu Province. 1 employee was selected Jiangsu Province. 2 employees were evaluated as the Chief

Technician in Jiangsu Province. 2 employees were entitled

The coverage rate of employee training in 2018 was 1009

• Strengthening the training of skilled talents

Confronted with newly emerging knowledge and technology in the era of intelligent manufacturing, there is an urging need to update and develop employees' professional skills and comprehensive quality. NPEC advocates the cultivation of a group of knowledge-based, skill-based, and innovation-based talents and promotes the spirits of model workers and craftsmanship to create a cultural atmosphere of "scientific innovation for the prosperity" in the Company.

We encourage employees to establish innovation concepts and thus have set up innovation application & reporting channels, such as the NPEC Labor Union and the Science and Technology Association, to regularly collect innovative ideas of employees from different departments. Meanwhile, we have also continuously improved the technological innovation rewarding mechanism to promote the transformation of scientific research results. We provide material rewards and moral encouragement to S&T innovation projects with great achievements, scientific research teams with key technological breakthrough, and meritorious scientific researchers.

NPEC annually carries out or participates in various drills, skill trainings and competitions to build employees as compound talents who adapt to the changing environment and enhance our overall competitiveness.



One State-level

One Province-level

4 City-level





The staff skill competition held by the Electronic Equipment Company

The staff skill competition held by the patch department of Electronic Manufacturing Center

Won the honor of Cradle of Highly Skilled Talents by the provincial government of Jiano

1 for "craftsman of Made in Jiangsu and 2 for" Jiangsu Craftmen"

Won the honor of Demonstrative Worker Model and Craftsman Innovation Workshop

ational Committee of China National Defense and Post &

4-



Labor skill competition held by the Electronic Manufacturing Center

Participating in the Best Skills Competition and achieving fruitful results

The Jiangsu provincial government has been holding the Best Skills Competition once every two years since 2012. It is one of Jiangsu vocational skills competitions featuring the highest-profile, widest range and greatest award. In November 2018, the 4th Jiangsu Skills Competition was held in Zhenjiang. In this competition, NPEC employees won the third and fourth (second prize) in the electronic technology project and were awarded the title of "Labor Day Medal of Jiangsu Province" and "Jiangsu Province Technical Expert" by the Nanjing Federation of Trade Union and the Department of Human Resources and Social Security of Jiangsu Province.



NPEC employees win the second prize in Jiangsu skills competition

Occupational Health and Safety

NPEC pays much importance to employees' occupational health and safety. With the overall principles of work safety, risk control and health & safety safeguard, we have established the OHSAS 18001 Occupational Health and Safety Management System with a full coverage of the subsidiaries.

Establishing and improving the safety management system

- Establishing the Work Safety And Fire Safety Committee to guide work on production safety
- Assigning the Department of Investment Operation to supervise work safety management
- According to the requirements of relevant regulations, the Information Industry Company set up the work safety management organization and appointed special personnel

NPEC organizes employees to attend annual occupational In January and June 2018, NPEC and its subsidiaries health examinations and special physical examinations successively carried out the 30th "Safety Month" and for occupational diseases caused by toxic and hazardous "Work Safety Month" activities. We formulated the work substance, and hires professional companies to test safety targets and plans, revised the work safety system, carried our laws and regulations promotion and education, hazardous substance and noise within the work area. In order to safeguard employees' health, we have gradually inspected and eliminated hidden dangers, and conducted replaced manual work with mechanical operations fire drills at different levels. All these measures represent to protect employees from direct touch of hazardous our efforts to create a stable and work safety environment substance. and effectively prevent accidents.

In recent years, the Company has undertaken projects or established factories in many areas of China, which has brought certain difficulties to safety inspection, supervision and management. In view of this, we set up a chat room named the Electronic Equipment Team Security Officer on WeChat, a messaging platform for sending all kinds of matters and work notifications regarding work safety, to identify safety hazards in a timely manner and launch supervision and rectification accordingly. We also uses WeChat group to promote and learn safety knowledge to enhance employees' safety awareness.

In 2018, the Company organized 58 work safety inspections, trained **2000** personnel on work safety and held 4 work



Promoting work safety liability	Special safety activities	Safety education and training
 Signing letters of annual work safety responsibility with subsidiaries, and implementing the requirements of "shared responsibility for Party and government, double responsibilities for one post" specified in the Letter of Responsibility 	 Safety overhaul: Inspecting hidden hazards in fire control, violations and safety; Contingency drills: Firefighting drills, evacuation drills, and firefighting equipment utilization instruction, etc. Safety theme activities: Safety knowledge competitions and safety, safety blackboard newspaper competition, etc 	 Safety management personnel training: Training persons in charge of work safety management and relevant personnel to pass through certification renewal and certification access before work Three-tiered safety training: The three-tiered safety training has a full coverage of safety work to enhance all employees' work safety awareness

Measures of Work Safety Management in NPEC



Demonstration of the use of fire extinguishers

We passed the test and acceptance of Nanjing "safe enterprises" building joint inspection group. No safety incidents happened

Creating a Harmonious Working Environment

While seeking corporate development, NPEC is also devoted to creating a "Panda home" for our employees and harmonious, pleasant and joyful working atmosphere to ensure quality life experience for them.

\bigcirc Caring for female employees

The Company cares about the career development needs of female employees. Every year, we select and commend the "Women Model Post" and "Women Model" of the previous year to display the working performance of female employees. In response to the special needs of lactating female employees, we extend the breastfeeding leave within an appropriate range based on the national statutory leave, and set Baby Care Room to facilitate breastfeeding women at work. In addition, we hold the Beauty Salon every year on Women's Day to build a platform for female employees to bring out their beauty.





NPEC held Beauty Salon activity to celebrate International Women's Day in 2018.

○ Enriching employee spare-time life

NPEC attaches great importance to the cultural needs of employees under the new situation and constantly strengthens the construction of cultural, sports facilities such as the Staff Bookstore, and Park Activity Center. We conduct various cultural and sports activities such as staff sports games, spring mountaineering, health training, reading and speech events. In 2018, the NPEC Labor Union and NPEC subsidiaries launched a series of popular activities to promote communication among employees and enhance team cohesion.





"Join our hands to create harmony" team building activity



2018 staff basketball game held by the NPEC Labor Union





Making Joint Efforts: Cooperating With Stakeholders For More Values 44Social Responsibility Report 2018





"Spring Festival Cultural and Sports Activity" held at Xingang Industrial Park



Singles mingle party at the Mid-Autumn Festival

Reading and Speech Contest on the Guiding Principles of the 19th CPC National Congress







"The making of bakers" activity and fitness walking activity



2018 spring mountaineering

Book sharing salon

PANDA



Cultural performance at the Spring Festival



"Integrate Dreams, Set Sails" new employee physical education and training

Feeling Nanjing beyond Xingang and developing together with NPEC

Since the Xingang Industrial Park is far from the downtown area and the traffic is inconvenient, the boarding staff's life outside work is relatively dull. In order to enrich their spare time and let them feel the warmth and care of the big NPEC family, Nanjing Huage Electric Plastic Co., Ltd. under the Electronics Manufacturing Company has been organizing the "Feeling Nanjing beyond Huage" activities and then follow this tradition once every two months since 2015. The company organizes boarding staff to visit famous scenic spots in Nanjing and to learn about Nanjing's history in their spare time, so that young employees are more willing to stay in Nanjing and stay in NPEC. In the past three years, nearly 1,000 employees have participated in these activities.

The "Feeling Nanjing beyond Xingang" activity has gradually become a new name card for the Company's "home culture" building. It has also effectively enhanced the sense of belonging and cohesiveness of employees, strengthening the connection between employees and NPEC, and creating a good atmosphere that enables common growth and progress of both of them.



In May 2018, the Electronics Manufacturing Company carried out the first "Feeling Nanjing beyond Xingang" activity





Staff singing contest

Protecting Natural Environment

S. There was not

Promoting ecological progress is elevating sustainable development to green development, which is an important development strategy of China in the new era. NPEC implements the development concept of co-existence between humans and nature, actively responds to national calls for promoting green development and nature protection, and building a beautiful China. Focusing on green products, green parks and green industry, NPEC strives to promote the development of the green, low-carbon and circular industrial system.



In 2018, the Company conducted **12** environmental self-inspections.

No safety or environmental incidents happened

Environment Management System

NPEC strictly abides by national and local laws related to environmental management, including the Environmental Protection Law, Environmental Protection Tax Law, Energy Conservation Law, Soil and Water Conservation Law, Water Pollution Prevention and Control Law, Regulations on Air Pollution Prevention and Control in Jiangsu Province, Regulations on Prevention and Control of Environment Pollution Caused by Solid Wastes in Jiangsu Province, Regulations on Prevention and Control of Environmental Noise Pollution in Jiangsu Province and Regulations on Energy Conservation in Jiangsu Province, and follows the principles of energy conservation, emission and pollution reduction, and protection of the earth environment. The Company has formulated the Quality, Environment and Occupational Health & Safety Manual based on the guidance of standards such as the ISO 14001 Environment Management System Requirements and Application Guide in order to promote the operation of the environment management system within the Company.

The Company has formulated and implemented the Identification and Evaluation Procedures of Environmental Factors and Identification and Evaluation Procedures of Hazard Sources. These procedures can help identify and assess environmental factors controlled during business operation, production and service and their potential environmental impacts as well as hazards sources that may threaten people's safety and cause property damage. We identify and document important environmental factors and medium sources of hazards (i.e., root causes, conditions, behaviors or combinations thereof that may cause personal injury or health damage) and inform departments at all levels and functions. We have fully recognized the environmental factors related to production, R&D, products, services, office work and other business operations, and formulated a targeted management plan to effectively manage and control them.

During the reporting period of 2018, Nanjing Huage Electric Plastic Co., Ltd. under the Electronic Equipment Co., Ltd., and the Electronic Equipment Company, were punished by relevant departments for violating laws and regulations related to environmental protection and fire safety. In view of this, NPEC has required subsidiaries at all levels to further strengthen the study of laws and regulations on environmental protection and fire protection, and strictly follow the relevant regulations to avoid the recurrence of such incidents.

In 2018, the Company formulated the Environmental Management System and issued the Notice on Strengthening Environmental Protection Management and the Notice on Strengthening the Management of Hazardous Wastes to all subsidiaries, setting stricter requirements for environmental protection.

I ow Carbon Emission Reduction

Global climate change has brought about a series of problems on the earth, including sea level rises, temperature increases and extreme weathers, etc. Massive greenhouse gas emissions intensify global climate changes and undermine biological diversity. NPEC reduces the carbon footprint of products and operations process and its negative impact on the environment by developing green products and improving energy efficiency.

○ Emission reduction

NPEC divides greenhouse gas emissions into two categories for the sake of calculation. The Category I refers to direct emissions of greenhouse gases generated by NPEC-owned or NPEC-controlled businesses, including emissions from natural gas, heavy oil, diesel and gasoline, etc.; Category II refers to indirect emissions of greenhouse gases caused by externally purchased electricity.

For some pollutant gas emissions, we build gas burning equipment to implement further treatment.

○ Waste management

NPEC advocates green engineering, and fully considers possible environmental impacts during product design and R&D stages by prioritizing the selection of green and ecological materials to reduce maximal waste discharge, and actively conducts waste recycling to improve resource utilization efficiency.

Туре	2016	2017	2018
Paper	2.02	2.25	1.713
Kitchen Waste	36	36	34.6
Plastics	0.0079	0.0039	0.52
Metal	0.017	0.012	28.3
Wooden Products	40	53	2.7

Total non-hazardous waste (Unit: ton)

Туре	2016	2017	2018
Paper	48.2	60.0	59.2
Plastics	135.2	183.0	168
Metal	10.5	11.0	11.1

Total usage of packaging materials (Unit: ton)

Category of Greenhouse Gas Emission	2017	2018			
Category I: Direct emissions	1,123.13	439.00			
Category II: Indirect emissions	15,682.49	12,880.76			
Greenhouse gas emissions (Unit: tons of carbon dioxide equivalent)					
J V		· ·			
Туре	2017	2018			
J V		· ·			
Туре	2017	2018			

Ture	Unit	2016	2017	2018
Туре	Unit	2016	2017	2010
Oil resistant gloves	Ton	0.7	0.6	0.66
Waste Chemical Paint	Ton	18	18	16.8
Waste toner cartridge (including waste toner)	Piece	275	399	357
Waste selenium drum	Piece	808	1,006	873
Electric waste such as waste battery	Kg	27	21	212.4
Waste fluorescent lamp	Kg	295	310	26.2

Total hazardous waste

Treatment methods
Treated by qualified third- party companies
Refined after recovery by the raw materials supplier
Recovered by qualified third-party companies
Recovered by the manufacturer or third-party companies

Sustainable Resource Utilization

NPEC reduces the resource input as much as possible in operation, and improves the utilization rate of clean energy to promote the conservation and efficient use of resources, thus contributing to China's circular economy and green development.

O Energy management

NPEC advocates energy conservation and emission reduction and increases the utilization rate of raw and supplementary materials to save energy resources. NPEC formulates the Regulations on Energy Conservation Management to calculate water and electricity metering in every internal department, and implements smart, centralized control of lighting and air conditioning. We also use electric water boilers with the timer device, energy saving lighting in public areas such as the washing rooms and passageway in office buildings.



○ Water resource management

NPEC promotes water conservation. We set up one independent water meter in each washing room within the work areas, and use sensor faucets naps to avoid forgetting turning off the faucet. Meanwhile, we have also built sewage treatment stations within the industrial park to do sewage testing and treatment.

Wate Was Che Den

Raising Environmental Awareness

Environmental protection is not only the responsibility of single department, but the duty of every employee in NPEC. We raise employees' environmental awareness of employees and advocate them to practice environmental protection in daily work and life.

O Advocating green office

We advocate double-sided printing in daily office work and improve the OA system to realize online working and file transmission, and reduce paper consumption. Besides, we advocate turning off extra lighting to reduce energy waste.

• Environmental protection campaigns in community

We encourage employees to launch voluntary services of community environmental protection, such as collecting white trash, weeding the lawn and promoting low carbon lifestyle and environmental protection in residential communities of Nanjing and on Mount Zijin. NPEC volunteers have participated in the voluntary planting activity themed "I Plant Bamboos for Pandas" in Hongshan Animal Zoo for many years, calling for the public to protect the environment and wild animals.



Туре	2016	2017	2018
er Consumption	181,190	181,054	217,240
te Water Discharge	163,071	162,949	195,500
mical Oxygen and (COD)	40.38	39.55	46.52

Water resource utilization (Unit: ton)

Supporting Industry Development

As a manufacturing enterprise pursuing diversified development, NPEC has many cooperation partners in upstream and downstream industry chains. Our sustainable development depends on the long-term responsible behavior, cooperation and mutual benefits of these supply chain partners. To this end, we further strengthen the social responsibility management of suppliers, enhance exchange and cooperation with industrial partners, and promote the sustainable development of the industry with all stakeholders.

Responsible Procurement

Upholding the principle of open, just and transparent procurement, NPEC improves the supplier appraisal and access mechanism and gradually implements responsible procurement. To promote suppliers to enhance responsibility awareness and fulfillment and help them detect and rectify problems, the Departments of Procurement of our subsidiaries regularly carry out multi-dimensional appraisals of existing and new suppliers every year so as to realize the real-time management and comprehensive assessments of suppliers in terms of quality, price, delivery timing, supply conditions, credit, operational situation, etc. of materials or labor provided by them. According to the assessment results, a list of qualified suppliers is formed. For key suppliers or suppliers of special materials, relevant functional departments, such as the Department of Procurement, Department of Production, Department of Quality, and Department of Research and Development, have established the supplier assessment team to make on-site assessments of suppliers. When risks occur in suppliers' products or services, we discuss the improvement plan with suppliers.

NPEC encourages all suppliers to pass the certification of quality and environment management systems. We propose detailed requirements of social responsibility management for suppliers who provide key products or services. Moreover, we specify in the procurement contract that the raw materials provided should meet relevant environmental requirements and we prioritize those with fewer environmental impacts. In recent years, the customs inspection shows that supply chain safety has become more and more important. In 2018, the Electronic Manufacturing Center passed the AEO Audit and obtained the accreditation. With the smooth operation of the Company's SAP-ERP system, we will require all supply chain links to go through the system in the future. The Electronic Manufacturing Center has carried out integrated training in marketing, procurement, production, planning and logistics. The systematic training aims to make staff from relevant departments and posts have a better understanding of the management process of supply chain and optimize the supply chain management of the Company.

In 2018, NPEC had 2,267 suppliers.

the South China Sea Islands

Regional Distribution of NPEC Suppliers in 2017



O IDeveloping Industry-University-Research Cooperation

NPEC and its subsidiaries promote the industry-university-research collaboration with industrial partners and scientific academies. They have established cooperation relationships with dozens of national scientific academies, such as Nanjing University and Southeast University to solve multiple technical problems and cultivated a group of R&D personnel in intelligent manufacturing industry.

In 2018, we participated in the 2018 International Symposium on Advanced and Intelligent Manufacturing Technology, the 15th Rail Transit Automatic Ticket Inspection System Technology Application Seminar and AFC Professional Product Exhibition (AFC Forum), 2018 China International Robot Summit Forum and other industry seminars. We also organized annual meeting of partners to discuss the development trends of intelligent manufacturing and smart cities with prestigious domestic universities, enterprises, research institutes and other partners to jointly promote industrial upgrading and development.



Delegation of higher vocational colleges from Jiangxi Province visited NPEC in December 2018.



In May 2018, NPEC signed a strategic cooperation agreement with Jiangsu Future Networks Innovation Institute.

Hosting the national welding robot operation competition to boost industry development



The opening ceremony of the 2018 China Skills Competition - "Panda Cup" National Welding Robot Operation Competition

In September 2018, the 2018 China Skills Competition - "Panda Cup" National Welding Robot Operation Competition was successfully held in the Panda Electronic Equipment Industrial Park, attracting more than 70 robot operators from eight universities and 32 enterprises across the country.

In order to organize this competition, the Company actively participated in the formulation of scoring standards, prepared test questions, cooperated with the hosts of this event to carry out training for the participants, and provided self-developed industrial robots as the event equipment. We integrated the most advanced technology into the competition to demonstrate our commitment to creating a standardized industrial robot-operating platform.

This competition was the first nationwide competition for cross-industry welding robot operation carried out by the Electronic Equipment Company. For the first time, it was included in the national skill competition system. It showed that we make progress in the field of self-developed robots with Chinese characteristics and highlighted the superior performance and intelligent manufacturing capability of NPEC's industrial robots. The success of the event not only further enhanced the reputation and brand popularity of the Company, but also cultivated Chinese robotic talents.

• Establishing partnership with industry peers



Dong Mingzhu, Chairperson of the Board of Gree Group visits Panda Equipment Industrial Park.





NPEC actively establishes good relationships with industry partners based on mutual trust in order to explore more and achieve win-win development in the industry. In 2018, the Company cooperated with Motorola Solutions, Gree Electric Appliances, Ericsson, China Zhenhua, Nidec Corporation, Cuban Radio and Television Administration, China Engineering Construction Welding Association and other organizations to conduct exchange visits and communications. Relying on the resources and technical advantages of all parties, we conducted resource exchange, joint construction, joint innovation, collaborative development and other forms of cooperation, aiming at promoting the sustainable development of the industry.

55 Making Joint Efforts: Cooperating With Stakeholders For More Values Social Responsibility Report 2018



NPEC visits China Zhenhua.



Experts from Cuban Radio and Television Administration discuss cooperation with NPEC.

Nidec Corporation come to NPEC for visit and discussion.



NPEC signs the strategic cooperation agreement with China Engineering Construction Welding Association.



Engaging in Community

Communities are the soil to nurture the development of NPEC and the understanding and support of the public creates essential conditions and favorable environment for our corporate development. Based on the advantage in our main businesses, we identify communities' concerns and appeals and motivate employee volunteers to leverage our development to serve communities.

Targeted Poverty Alleviation

We devote great efforts to poverty alleviation and focus on improving the effect of "targeted poverty alleviation". which is an important measure to lift the economically underdeveloped villages out of poverty and become well off. It is also the political responsibility for state-owned enterprises to fulfill their social responsibilities. Actively responding to the national call for targeted poverty alleviation, NPEC has been carrying out poverty alleviation work in poor villages in Gaochun District of Nanjing in various ways for three consecutive years.

In August 2018, the Company went to the village to carry out the annual "Autumn Semester Student Aid", providing grant to three college students from poor families and donating school supplies such as schoolbags and stationery and student grand to primary and secondary school students from nine poor families. In addition, after visiting the villagers and knowing their financial conditions, the Company provided support to help the 60 poor households in the village, as an effort to lift those particularly difficult families out of poverty and help them lead a better life. In 2018, we spent RMB 76,600 on targeted poverty alleviation.



The annual "Autumn Semester Student Aid" activity

Public Welfare in Community



NPEC volunteer participate in the "Amity Volunteer Gala" charity sale event

NPEC pays close attention to maintaining a good interaction between the Company and the community, supporting and encouraging employees to give full play to their professional knowledge and individual strengths and participate in public welfare undertakings in the community. In 2018, the Company organized a series of volunteer services to promote the spirit of Lei Feng in the new era and show the positive spirit of NPEC's young employees.

putting shared bicycles on the streets around the Company in order; picking up the garbage left by tourists on Zijin Mountain, etc.

providing ticketing Environmenta guidance, maintaining protection order, assisting the elderly, showing the way for passengers Caring at the subway station, **IPEC** metro for the and promoting the vulnerable "Panda" online ticketing service groups equipment.

2018 NPEC employee volunteer services





Helping clean the newly relocated oldage rehabilitation center, visiting elderly patients, participating in charitable activities and providing necessary living and learning support for poor orphans



NPEC metro service project: the number of the team has increased to **500** since 2010. We have served more than **1,800** passengers for total **1,100** hours.



"Amity Volunteer Gala" charity sale event:

more than 200 NPEC volunteers have participated in this event in the past five years, donating RMB

22,655 of charity sale proceeds

In 2018, **350** employees provided 720 hours of volunteer service.

Appendixes

Content Index of ESG Reporting Guide

		Environmental		
Aspe	ect	Description	Response	
	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	•	P41
	A1.1	The types of emissions and respective emissions data.	•	P42
	A1.2	Greenhouse gas emissions in total (in tons) and, where appropriate, intensity(e.g. per unit of production volume, per facility).	•	P42
Aspect A1: Emissions	A1.3	Total hazardous waste produced (in tons) and, where appropriate, intensity(e.g. per unit of production volume, per facility).	•	P43
	A1.4	Total non-hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	•	P43
	A1.5	Description of measures to mitigate emissions and results achieved.	•	P42
	A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	•	P42
	General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	•	P43- 44
	A2.1	Direct and/or indirect energy consumption by type (e.g. elec- tricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	•	P44
Aspect A2:	A2.2	Water consumption in total and intensity (e.g. per unit of pro- duction volume, per facility).	•	P44
Use of Re- sources	A2.3	Description of energy use efficiency initiatives and results achieved.	•	P43- 44
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	 No issue found in sourcing water 	P44
	A2.5	Total packaging material used for finished products (in tons) and, if applicable, with reference to per unit produced.	•	P43
Aspect A3:	General Disclosure	Policies on minimizing the issuer's significant impact on the environment and natural resources.	•	P41
The Environment and Natural Resources	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	•	P41

		Social		
Aspe	ect	Description	Response	
Aspect B1:	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	•	P25 26
Employment	B1.1	Total workforce by gender, employment type, age group and geographical region.	0	P25
	B1.2	Employee turnover rate by gender, age group and geographical region.	0	P26
	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	•	P34
Aspect B2: Health and Safety	B2.1	Number and rate of work-related fatalities.	 No death caused by job-related accidents 	
	B2.2	Lost days due to work injury.	🔿 No data	
	B2.3	Description of occupational health and safety measures ad- opted, how they are implemented and monitored.	0	P34 35
	General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	•	P29 33
Aspect B3: Development and Training	B3.1	The percentage of employees trained by gender and employ- ee category (e.g. senior management, middle management).	0	P31
5	B3.2	The average training hours completed per employee by gen- der and employee category.	0	P31
	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have	•	P25
Aspect B4: Labor Standards	B4.1	Description of measures to review employment practices to avoid child and forced labor.	 No violation happened during the reporting period, inlcluding 	P25
	B4.2	Description of steps taken to eliminate such practices when discovered.	child labor or forced labor.	P25



	General Disclosure	Policies on managing environmental and social risks of the supply chain.	•	P45
Aspect B5:	B5.1	Number of suppliers by geographical region.	0	P45
Supply Chain Management	B5.2	Description of practices relating to engaging suppliers, num- ber of suppliers where the practices are being implemented, how they are implemented and monitored.	🔿 No data	
	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	•	P21- 23
	B6.1	Percentage of total products sold or shipped subject to re- calls for safety and health reasons.	🔿 No data	
Aspect B6: Product	B6.2	Number of products and service related complaints received and how they are dealt with.	🔿 No data	
Responsibility	B6.3	Description of practices relating to observing and protecting intellectual property rights.	0	P12
	B6.4	Description of quality assurance process and recall proce- dures.	🔿 No data	
	B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	🔿 No data	
	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	•	P10-11
Aspect B7: Anti-corrup- tion	B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	0	P10
	B7.2	Description of preventive measures and whistle-blowing pro- cedures, how they are implemented and monitored.	0	P10-11
Aspect B8:	General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	•	P51
Community Investment	B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	0	P51- 52
	B8.2	Resources contributed (e.g.money or time) to the focus area.	0	P51- 52

Note: • means the indicators of "comply or explain" and \bigcirc means the indicators of "suggest to disclose".

Reader Feedback

Thank you for reading our Social Responsibility Report 2018. We expect to receive your feedback on our social responsibility performance and this report. Your suggestions and comments will help us continue to improve our corporate social responsibility management and practices and our next report. Please complete the form below and send it to us via mail or e-mail.

What is your overall impre	ssion of this report?
How is the structure of thi ☐ Very good	s report?
How about the readability	of this report?
How is the disclosure of to Very comprehensive No related information	
What kind of additional inf	formation do you expect

Is there any suggestion on our CSR performance or this report?

Contact information:

Tel: (86 25) 84801144 Fax: (86 25) 84820729

Email: dms@panda.cn

Address: No. 7 Jingtian Road, Nanjing, Jiangsu Province, the PRC



Very poor	□ Poor
□ Very poor	Poor
Very poor	🗌 Poor
	□ Very poor

Partial related Few information

t to see in the Report?

-	-	 	 		• •	-		 -	-		 • •			 	-	 	-	• •		 				 		-	 	• •	• •		 			• •	 • •			• •				 • •	 -
-	-	 	 	 -		-			-		 	-		 	-	 	-			 			 	 			 				 				 		 -			 		 	 -
-	-	 	 	 -		-		 -	-		 			 	-	 				 				 		-	 				 				 							 	 -
-	-	 	 			-					 	-		 		 				 			 				 				 											 	

		 	 • •	 		 	•	 	 - 1			 		-				•		 		 				 		 • •	• •	 	• •		 	 	 •	 	 	
-		 	 	 		 		 	 -		 	 		-						 						 		 				• •	 	 		 • •	 	-
-		 	 	 		 		 				 								 			 -			 	-	 					 	 	 	 	 	
		 		 		 		 				 								 					 -	 		 					 	 	 	 	 	



Nanjing Panda Electronics Company Limited

南京熊猫电子股份有限公司

www.panda.cn