

# 2021 CSR REPORT

CORPORATE SOCIAL RESPONSIBILITY REPORT

Promote the smart energy revolution, create a green and beautiful life



Zhejiang Narada Power Source Co. Ltd.



2021 Narada Power CORPORATE SOCIAL RESPONSIBILITY REPORT

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# About the Report

#### **Contents**

This report mainly presents the economic, social and environmental activities of Narada Power for the period from January 1 to December 31, 2021. Due to the possible continuous nature of disclosed activities, some information may be retrospective or prospective as appropriate.

#### Data

The financial data in this report are based on financial reports and other data are obtained from internal statistics of the company. All financial data in this report are presented in RMB.

#### Main reference standards

- GRI Standards by GRI
- Guidance on the Fulfillment of Corporate Social Responsibility by Central Enterprises by SASAC of the State Council
- GB/T36001-2015 Guidelines for Preparing Corporate Social Responsibility Reports
- Guidelines to CSR Reporting in China by CSR Center of CASS
- CFIE Guidelines to Social Responsibility of Chinese Industrial Enterprises and Industrial Associations
- Guidelines for the Preparation of Enterprise Environmental Reports (HJ617-2011) by Standard of the State Ministry of Environmental Protection
- International Organization for Standardization ISO26000:2010 Guide to Social Responsibility

#### **Release status**

This is the twelfth CSR report of Narada Power.

It can be read and downloaded from the company's website: http://www.naradapower.com



2009





2012

2013





2016

2017





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2011





2015



2014



2018



2019

## Address from the President

Since its establishment in 1994, Narada Power has witnessed the emergence of China's new energy industry and developed with it. 28 years of changes and perseverance, Narada Power always takes technology and brand as the core, delves into the energy storage industry, and is committed to realizing the company vision of "promoting intelligent energy revolution and creating a green and beautiful life".

2021 is an extremely difficult year for us and the impact of the pandemic on the global economy is still ongoing. No cross, no crown. The company, with the first-mover advantage in the energy storage industry, overcomes difficulties and actively responds to pressure. This year, we developed the third-generation fully pre-assembled modular lithium-ion energy storage system featuring ultra-high volume-to-energy ratio, taking the lead in energy storage system integration technology, and adding to the wider application of new energy; we developed iterations of lithiumion batteries and their key materials, which become the supporting technology for developing energy storage industry. Through countless innovative fruits, Narada Power has continued to provide reliable and trustworthy intelligent energy storage systems for the whole world.

With the environmental policy of "devoting to the harmonious coexistence and sustainable development of enterprise and environment", the company focuses on energy storage business and connects the enterprise with new energy industry, so as to contribute to the global new energy industry, actively promote the goal of "peaking carbon emission and reaching carbon neutrality", and help the economy to achieve the goal of "green recovery".

Narada Power is committed to reducing the impact of manufacturing on the consumption of natural resources in manufacturing. By creating a recycling industry chain, the company significantly reduces the demand for mineral resources. After completing the whole industry chain of lead-acid batteries, Narada Power will take a solid step towards a closed-loop lithium-ion battery industry in 2021. The first phase of 25,000 tons of waste lithium-ion battery recycling project will be put into operation within the year. It will continue to explore and apply resource recycling technology in the future to minimize the impact on the consumption of natural resources and make its contribution to a green and beautiful planet.

Gratitude and giving back have always been an important part of the company's culture. Its development results from the efforts and hard work of every Narada Power member. In 2021, the company will achieve win-win benefits with its employees by "reconstructing the job system and building a platform for personnel development". Narada Power's development also attributes to the support of the community. Hence, the company has always taken caring for and repaying the society as an important corporate responsibility, actively participating in social activities and various charitable causes, providing disaster relief, helping the needy and promoting education, etc., and practicing the commitment of "making contributions to the staff, the society and achieving win-win development" through practical actions.

Narada Power always adheres to the responsibility knows no time, no limit, and no national boundaries. We should be an excellent corporate citizen and always shoulder our responsibilities. In the future, we will work together with our customers, suppliers and other related parties to achieve the vision of "promoting the smart energy revolution and creating a green and beautiful life".



President of the Company:

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# Management for Sustainable Development

#### Name:

Zhejiang Narada Power Source Co. Ltd.

#### • Company registered addres:

No. 72, Landscape Avenue, Qingshan Lake Street, Lin'an City, Zhejiang Province

#### Founded time:

September, 1994

#### • Listed Stock Exchange:

Shenzhen Stock Exchange (Stock Code: 300068)

#### Company address:

No.822, Wen'er West Road, Hangzhou, Zhejiang, China

#### • Date of listing: April 2010

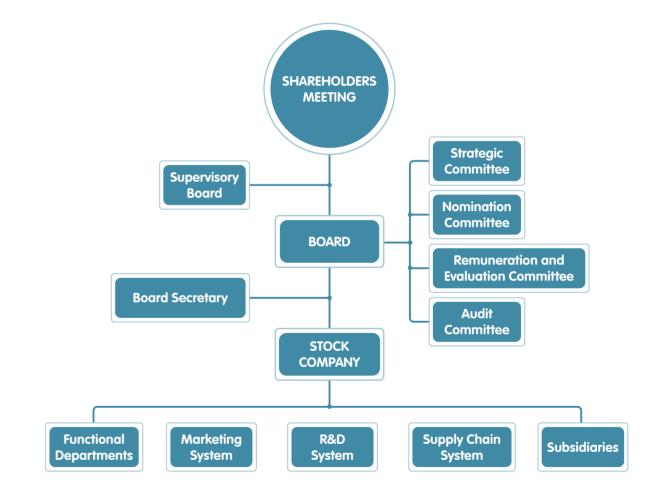
#### Main business:

Narada Power is one of the leading enterprises in new energy battery industry. Founded in 1994, the company is a domestic A-share GEM (stock code 300068). The company mainly focuses on energy storage applications, providing systematic products, solutions and operation services with lithium-ion batteries and lead batteries as the core. Meanwhile, 2.it builds two industrial closed-loop of "lithium battery recycling industry chain" and "lead battery recycling industry chain" to practice the concept of circular economy.

#### • Main products and application fields.:

3. The company focuses on the R&D, manufacturing, sales and service of a full range of products and systems, such as energy storage power plants for new energy, energy storage backup power for communication and data centers, as well as the integration of eco-friendly resource recycling industry.





(For more information, please refer to Narada Power 2021 Annual Report)





# Corporate Management

Narada Power has established a corporate governance structure that ensures all shareholders to fully exercise their powers and enjoy equal status. The Board of Directors is responsible for convening and reporting to the shareholders' meeting, executing the resolutions of the meeting timely, implementing the overall development and business strategies of the company, deciding on the company's business policies and investment plans, and guiding the company's management. Its Board consists of nine directors, with a chairman and three independent directors. The independent directors are experts with professional academic qualifications and rich experience in the fields of finance, law, industry technology, etc. to ensure the interests of all shareholders, including small and medium-sized shareholders.

The core management team and business backbone of the company possesses more than 15 years of industry and management experience, bearing a forward-looking ability to catch the market and technology development trends to maintain the sustainable development.

The company has established a corporate performance evaluation and incentive system with a continuously improving mechanism to link the income of managers with the business performance and objectives of the company. The appointment of senior management personnel is open and transparent and in compliance with the requirements of relevant laws and regulations. The remuneration of directors, supervisors and senior management of the company is determined and issued in accordance with the provisions of the Rules of Work of the Remuneration and Evaluation Committee of the Board of Directors, taking into account their business performance, working ability and job duties and other assessments.

It strictly follows the laws and regulations such as the Company Law, the Securities Law, the Basic Standards for Internal Control of Enterprises and the relevant regulations of the CSRC. It also follows the requirements of the relevant regulatory documents of the China Securities Regulatory Commission for listed companies, continuously improving and standardizing the internal organization structure and operation mechanism by combining the industry and its own characteristics. That guarantees its operation and management legal, its assets safe, and its financial reports and related information true, complete, promoting its businesses effectively implemented and strategic goals reached. Besides, the Company has established the Strategy Committee, the Remuneration and Evaluation Committee, the Nomination Committee and the Audit Committee, forming a comprehensive and multi-level internal control.

## Main association membership

International Advanced Lead–Acid Battery Cor (CBI, formerly ALABC)

China Battery Industry Association

Lead-Acid Battery Branch of China Electrica Association

Energy Storage Application Branch of China ( Industry Association

Renewable Metals Branch of China Nonfer Association

National Standardization Technical Committee

EESA

CNESA

China Communications Standardization Assoc

EPTC

CDCC

Zhejiang Association for the Promotion Responsibility

Zhejiang Environmental Monitoring Association

Zhejiang Association of Listed Companies

Zhejiang Bicycle and Electric Vehicle Industry A

Zhejiang Enterprise Technology Innovation Ass

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nsortium	Member Units
	Vice President
al Appliances Industry	Vice Chairman
Chemical and Physical	Vice Chairman
rrous Metals Industry	Executive Director
of Lead Acid Battery	Member Unit
	Vice Chairman
	Vice Chairman
ciation	Director Unit
	Deputy Directo Members
	Member Unit
of Corporate Social	Member Unit
n	Director Unit
	Vice Council Member
Association	Director Unit
sociation	Member Unit

# Main awards

- Ranking No. 3 in China Light Industry New Energy Battery Industry
- One of the top 10 enterprises in China Energy Storage Battery Enterprises in 2021
- One of the top 10 enterprises in China Energy Storage Integrators in 2021
- The Most Influential Enterprise in China's Energy Storage Industry in 2021
- Advanced Group of Scientific and Technological Innovation in Battery Industry in the 13th Five-Year Plan
- No. 52 in the Top 200 Enterprises of China Light Industry
- No. 31 in the Top 100 Technology List of China Light Industry
- National Recommended Catalogue of Energy-saving Technology Products for Communication Industry (2021)
- National Demonstration Enterprise of Green Supply Chain Management
- Green Design Products
- Corporate Social Responsibility Benchmark Enterprise in Zhejiang Province
- One of the Top 100 Manufacturing Enterprises in Zhejiang Province
- 2021 Model Enterprise of Technological Innovation in Anhui Province
- Excellent Private Enterprise in Anhui Province
- Advanced Group in Poverty Alleviation in Anhui Province
- One of the Top 100 Private Enterprises in Anhui Province in 2021
- 2021 Zhejiang AAA Grade Trustworthy Public Enterprise
- One of the Top 100 Enterprises of Manufacturing Industry (Digital Economy) in Hangzhou
- Hangzhou "Kunpeng Enterprise"

# Strategy and management of responsibility



#### • Vision and mission

Promoting the smart energy revolution and creating a green and beautiful life.

#### • Core values

Integrity, responsibility, innovation and dedication.

#### • Responsibility viewpoints

Responsibility knowing no time difference, no limit, and no national boundaries. Be an excellent corporate citizen and always shoulder responsibilities. Motivating employees and leading them to actively expand their careers. --Responsibility to employees.

Taking pride in customers and meet their needs with quality products and services.

--Responsibility to customers

Making contributions to the society, dedicating to the harmonious development of society.

--Responsibility to the society

Caring for the earth, build an environmentally friendly enterprise and making efforts for environmental protection.

--Responsibility for the environment





#### System construction and management of responsibility

Through the introduction of ISO9001, ISO14001, ISO45001, SA8000, OC080000, RBA and other standards, Narada Power has established a relatively complete corporate social responsibility management system, which covers various aspects such as business, product, and environment responsibilities, as well as human rights and labor, social welfare, supply chain and business ethics.

December 1996, passed the ISO9001 quality management system certification

July 2000, passed ISO14001 Environmental Management System Certification

September 2004, passed cleaner production audit

December 2006, passed circular economy audit

December 2006, introduced QC080000 Hazardous Substance Free Process Management System.

December 2006, passed OHSAS18001 Occupational Health and Safety Management System Certification

March 2008, passed TL9000 Quality Management System Certification for Telecom Industry February 2009, passed SA8000 Social Responsibility Management System Certification July 2010, implemented EICC Standard for Business Ethics Management System in the Electronics Industry

July 2011, introduced ISO14064 Greenhouse Gas Quantification and Reporting Guidelines January 2012, introduced the Performance Excellence Evaluation Guidelines

March 2016, passed TS16949 Quality Management System Certification for the Automotive Industry

November 2017, passed ISO50001 Energy Management System Certification

December 2017, passed IATF16949 Quality Management System Certification for the Automotive Industry

August 2018, introduced ISO22301 Business Continuity Management System

October 2018, passed the QC080000 Certification of Non-Hazardous Substances Process Management System

September 2020, passed ISO45001 Occupational Health and Safety Management System Certification

# Participation of interested parties

### Shareholders **Topics of concern** • Value and market value concerns Disclosure of information • Protection of shareholders' rights Main communication ways Disclosure of relevant information legally Shareholders' Meeting Email • Investor reception Maintain good communication with investors

# Government/Industry

#### **Topics of concern**

- Sustainability
- Compliance
- High-quality and energysaving products

 Sustainable development issues and cooperation • Policy communication meetings Industry forums and association events Standards formulation Research results release



#### Main communication ways

# Suppliers

#### **Topics of concern**

- Reasonable price
- Win-win results
- Sustainable development

Main communication ways

- Supplier evaluation
- Supplier audits
- Supplier conferences
- Responsible Sourcing
- Supplier carbon inventoryRegular communication
- Mutual visits

# Staff

#### **Topics of concern**

- Benefits
- Career Development
- Health and safety
- Legal rights
- Main communication ways
- Employee satisfaction survey
- Workshop group talks
- Creative proposal activities
- CEO's reception
- Suggestion box
- Email
- Phone
- Employee representative communication
- Basketball league
- Employee Sports Day

# The public and community

#### **Topics of concern**

- Information Disclosure
- Legal management
- Green products
- Product safety
- Corporate social responsibility

#### Main communication ways

- Disclosure of information on
- the company website
- Participation in community activities
- The Light of Narada Power
- WeChat official account
- Video No.
- Tik Tok
- Today's headlines
- Carrying out community charity activities

# **Business ethics and commercial liability**

Narada Power's business ethics policy is to adhere to integrity, abide by business ethics, and comply with all applicable laws and regulations of the location for business activities, so as to be a responsible corporate citizen.

The business principle is to comply with business ethics, contribute to society, and achieve business success. This is the company's commitment and the basis for its many policies. It relies on honesty and integrity to build long-term relationships with customers, with all marketing and advertising being accurate and truthful; It is also committed to striving to meet specific local codes of conduct in any community or country in which it operates. These codes sometimes are embodied in regulations and are not formalized, but they are deeply rooted in the philosophy and practices of the local community. Adherence to these codes in the company's operations is not only its expectation, but also a part of its success, for engaging and motivating employees, for satisfying customers, and for dealing effectively with private and public institutions. In order to better fulfill its ethical business responsibilities, the company introduced the Electronic Industry Code of Conduct (EICC) standard in July 2010. The standard was renamed the Responsible Business Alliance (RBA) Code of Conduct in 2018. (Responsible Business Alliance), and the company has also followed suit to make its business ethics work more systematic, comprehensive and standardized while making continuous improvement

#### • Code of Ethics Conduct in Business



#### • Code of Conducts for Employee

Be honest and upright, obey the law, do the right thing, and be a trustworthy person

#### • Legal & Regulatory Requirements

Criminal Law of the People's Republic of China Law of the People's Republic of China Against Unfair Competition Law of the People's Republic of China Against Money Laundering Company Law of the People's Republic of China Trademark Law of the People's Republic of China Patent Law of the People's Republic of China Securities Law of the People's Republic of China Law of the People's Republic of China

#### • Risk Identification

Bribery, false financial statements, disclosure of securities information and technical trade secrets, false propaganda and advertising, conflict minerals in procured products, disclosure of customers, suppliers, employees, and whistleblowers' personal information, etc.

#### Risk Control

Conduct training, implementation and study of the integrity and anti-corruption management system throughout the company; stipulate the terms of honest management that must be observed including: hospitality and gift-giving, etc.; in dealing with agents, consultants, suppliers, customers, etc., no bribes or other forms of improper gain shall be offered or accepted, etc.; taking measures such as rotation of duties, signing of confidentiality agreements, and special audits of off-duty/integrity;keeping accurate records and disclosing relevant information in accordance with the law;Establishing an IP management system, including IP policies and enforcement procedures; advertising in accordance with laws and regulations and internal approval processes; participating in market competition legally and trading fairly. To stipulate requirements for conflict-free mineral management of suppliers and to conduct procurement responsibly.

Complying with legal and regulatory requirements related to privacy and information security when collecting, storing, processing, transmitting and sharing personal information; strengthen the construction and dissemination of information and network security. Setting up dedicated report line, ethics line, etc., to ensure the confidentiality of information reported and the protection of whistleblowers.

Public complaint/reporting channels
E-mail: dd@naradapower.com
Tel: 0571-56975908



# Reliable and Dependable **New Energy**

## Enormous achievements in scientific and technological innovation

Since science and technology innovation injects engines into enterprise development, Narada Power has always attached great importance to independent innovation and technology R&D. It possesses the key technology advantages and sustainable R&D capability to support the integration of battery materials, systems and recycling in the energy storage application field, and leads the enterprise with innovation.

The company has a strong R&D team with rich theoretical and practical experience that has driven the company's development for a long time. It also has advanced R&D platforms such as national postdoctoral research station, nationally recognized laboratory, Zhejiang key enterprise research institute, model academician expert workstation, etc., which bring excellent technical innovation capability. The company also pays attention to cooperation with others and establishes open innovation system, possessing significant advantages in core technologies such as lithium ir\_n phosphate, ternary lithium battery products and system integration products.

In 2021, it applies for 123 patents, including 52 invention patents. At the same year, 138 patents are granted, including 14 invention patents. By the end of 2021, the company has 308 valid patents, including 77 invention patents and 157 utility model patents.

# Breakthrough in core technologies and products

#### • The third-generation fully pre-assembled modular lithium-ion energy storage system featuring ultra-high volume-to-energy ratio.

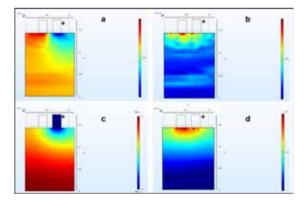
The application of new energy/energy storage technology has driven energy storage projects to reach 100 MWh, posing an unprecedented challenge to the integration of energy storage systems and project delivery experience. Narada Power develops the third-generation fully preassembled modular lithium-ion energy storage system featuring ultra-high volume-to-energy ratio, which adopts ultra-high energy system and strong fully pre-assembled modular platform. It achieves the whole system seismic grade 8 on the Richter scale, 100% pre-assembled delivery, on-site plug-and-play and makes contributions to a number of domestic and foreign energy storage projects to achieve excellent project delivery experience.

#### • Technology of long cycle life battery for energy storage

Narada Power's third generation FE125 long cycle life battery cell for energy storage has a single energy density of more than 160Wh/ kg, supporting 1C continuous charging and discharging. 0.5C cycle can be used 8000 times and can pass the ultimate abuse test at the end of life.

The application of this technology reduces the over-allocation of the energy storage system, takes into account both energy and power storage scenarios and further improving the product performance as well as the core competitiveness of the product.

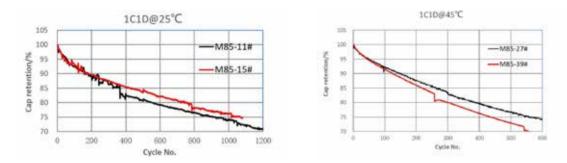




A 3D electrochemical-thermal coupled model to simulate the temperature change of each part of the core during charging and discharging

#### • Extended Temperature lithium manganate battery technology

Through developing high-capacity gram featuring multiple cathode compound system, the high temperature storage and cycling performance of LiMn2O4 cells can be effectively improved. Besides, the temperature range of LiMn2O4 cells can be widened to 2100 weeks at room temperature, 700 weeks at high temperature, and no lithium precipitation at -10℃ low temperature charging. The research and application of this technology has created a new type of civil lithium battery system, broadened the application of civil lithium battery products and improved the competitiveness of products.



Lithium manganate cells cycle curves in normal temperature of 25°C and 45°C

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#### Lithium-iron phosphate cathode material repair technology

Narada Power is committed to developing recycling technology. With a year of continuous technology development, it has completed the lithium-iron phosphate cathode material technology development and industrialization for direct repair and utilization. The repaired lithium iron phosphate cathode material has excellent processing performance compared with the new material. The energy density reaches more than 97% of the new material while manufacturing costs is reduced by more than 50%.

 Efficient extraction technology for waste lithium-ion batteries Waste lithium-ion batteries are rich in metal elements and can be used in urban cities. With the rapid development of new energy vehicles, battery recycling technology and industrialization must be solved. Through several years of technology development, Narada Power has completed the efficient separation and purification technology of nickel, cobalt, copper, manganese, lithium and other metals. It is able to use waste batteries to produce high-purity raw materials for lithium-ion batteries.

Waste lead battery recycling technology Narada Power has carried out the technical research of "heavy metal hazardous waste codisposal by oxygen-enriched side-blown dual-area smelting". It has basically established the key technology prototype of heavy metal hazardous waste co-smelling and directional enrichment control, and identified the pollutant generation mechanism and treatment measures in co-disposal process. This technology can provide innovative solutions and key technical theoretical support for the resource and harmless disposal of heavy metal hazardous wastes in China.

#### Chief Scientist of Narada Power was awarded the "Nobel Prize" in storage battery sector

In July 2021, Mr. Herbert K. Giess, Chief Scientist of Narada Power, was awarded the highest international award for lead-acid batteries, Gaston Planté Medal. This award was established in honor of the inventor of lead-acid battery, Mr. Gaston Planté, and is the highest award in the field of battery in the world. It has been awarded every three years by the Bulgarian Academy of Sciences since 1989. Mr. Giess has been working in the field of basic and applied research in the international frontier of chemical power supplies since 1969. He is the Chairman of IEC/TC21, the developer of IEC 60896-21/22 International Standard for VRLA Batteries, IEC 61427 International Standard for Energy Storage and has been the executive chairman of the International Lead Acid Battery Conference for many times. Meanwhile, he has been awarded the International Battery Industry Outstanding Contribution Award, IEC 1906 International Standard Best Model Award, International

#### Lead Award, etc.

Since 2004, Mr. Giess has been the chief scientist of Narada Power, directing the development of key products such as high-temperature batteries, nuclear-grade backup batteries, energy storage batteries. He led Narada Power to become the first company in China to undertake the ALABC project, breaking the monopoly of European and American companies.

At the same time, he led the company to take the lead in revising the international standard IEC61427-2:2015 "Secondary Batteries for Renewable Energy Storage" and IEC 63193:2020 "Lead-Acid Batteries for Light Vehicles", which greatly enhanced the international reputation And influence of Narada Power.

Mr. Giess, the 18th winner, was described by the committee as: "Mr. Herbert K. Giess has worked more than 50 years for various research centers and companies and has made numerous contributions to the battery industry."

# Carry out high-level technical cooperation to enhance innovation capability

# • In-depth technical cooperation with Zhejiang University and continuous R&D of solid-state lithium-ion technology

Solid-state lithium battery represents the future direction of lithium-ion battery technology. Narada Power has been deeply engaged in technical cooperation with Zhejiang University and has undertaken the key science and technology project of Zhejiang Province, "Technology Development of Key Materials and Battery Manufacturing for High-energy Solid-State Lithium-ion Batteries" and has passed the mid-term acceptance of Zhejiang Province key R&D program

"Technology Development of Key Materials and Battery Manufacturing for High-Energy Solid-State Lithium-ion Battery". In addition, Narada Power has prepared a composite quasi-solidstate battery based on highly heat-resistant fiber diaphragm coated with oxide electrolyte and the cells can pass safety tests such as pinprick and hot box. At present, the technology has matured and the samples may reach mass production, and will be sent to the end of the year for verification.

# • High-energy lithium project selected as "Leading Goose" R & D program in Zhejiang Province

The "Leading Goose" R&D research program is established by Zhejiang provincial financial funds, focusing on the world's science and technology frontier, on the main economic battlefield, and on the major needs of the country and Zhejiang. The program centers on carrying out frontier scientific research in key technology fields, reaching breakthroughs in major core technology research, public welfare research, major international science and technology cooperation and other research activities.

The "High-Energy and Safety Battery Key Material R&D and Industrialization Project", led by Narada Power and jointly conducted by the Yangtze River Delta Research Institute of the University of Electronic Science and Technology and other units for collaborative technology research in the industry chain, is listed as a "Leading Goose" R&D research project in Zhejiang Province in 2022. The project aims to develop a high-energy lithium-ion battery of international leading level through the design and preparation of low expansion and long-life nano-silicon carbon anode, the preparation of high-voltage cathode with multi-purpose, and the integrated manufacturing of single cell battery featuring high-energy and safety and other key technologies. The lithium-ion battery and its key materials developed in this project are the supporting technologies for the development of new energy vehicles and energy storage industry. They will play an essential role in achieving the goal of "peaking carbon emission and reaching carbon neutrality".

# Deeply ploughing in the field of intelligent energy storage

Under the carbon peaking and carbon neutrality goals, the energy storage industry will see explosive growth in 2021. The policy supports the energy storage industry comprehensively, continuously improves the top-level design of energy storage and popularizes it to local communities while directing market development, technological progress, market environment and regulation.

The establishment of the policy system will help the market-oriented development of energy storage. In July 2021, NEA officially released the "Guidance on Accelerating the Development of New Energy Storage", proposing for the first time the target of installed capacity. In the same period, the NDRC issued a "notice on further improving the time-sharing tariff mechanism In August, NDRC and NEA encouraged new energy power generation enterprises to deploy energy storage or peaking capacity through self-built or purchased projects. In December, NEA issued the "Regulations on Grid-connected Operation of Electricity", which explicitly included new energy storage into the main grid-connected management.

Narada Energy, a subsidiary of Narada Power, focuses on smart energy storage services, covering R&D and production of energy storage products, system integration and overall solutions of intelligent operation. It adopts international advanced energy storage technology to provide safe and reliable energy storage system products and services for global users. After years of exploration and accumulation, the company has achieved large-scale application on users, grid and new energy generation side.

In 2021, the company has sensed the development trend of energy storage market and technology, capturing the global energy storage market opportunities with innovative solutions, continuing to carry out technology upgrades and product innovation iterations. It has carried out various new products R&D, such as fully pre-assembled modular lithium-ion energy storage system featuring ultra-high volume-to-energy ratio, intelligent IOT home household energy storage system solution, as well as the intelligent charging and switching power solutions for mobile emergency vehicle.

At the same time, the company grasps the global energy storage development opportunity. On

the basis of existing first-mover advantage and the global market, it focuses on expanding power generation, grid-side and consumer-side lithium storage projects.

# • Entering the Korean energy storage market, Narada Power lithium-ion energy storage products receive both KC and KBIA certifications

In order to enhance the safety of energy storage batteries, KATS issued the safety standard KC 62619 in 2019. Both energy storage lithium-ion batteries and systems are included in the mandatory certification. KC (Korea Certification) is a mandatory certification that any manufacturer must obtain before importing electronic products into Korea. KBIA certification is another core qualification for energy storage business in Korea. Compared to KC certification, KBIA certification is more stringent than the international IEC/ISO and Korean international industrial standards, and has high requirements for energy storage system performance indicators in addition to safety performance. For overseas companies entering the Korean energy storage market, the threshold of certification standards can be considered "unreachable". It is reported that some well-known companies in the industry have obtained KC certification but cannot enter the Korean energy storage market because they have not passed KBIA certification. After years of technology accumulation and continuous R&D iteration in the field of system integration, Narada Energy has provided sufficient guarantee for the safety of energy storage power plants in terms of safety design, efficient thermal management, early detection and early warning, and intelligent firefighting of energy storage systems, which pave the way for the safety of energy storage station and help the company obtain the dual certifications of both KC and KBIA. The acquisition of KC and KBIA certificates is undoubtedly a key step for Narada Power storage to enter the Korean market. Narada Power will continue to provide high quality and safe lithium integrated system solutions to help the development of the energy storage industry and promote reaching the goal of carbon peaking and carbon neutrality.



#### • 130MWh Lithium Wind Storage Project in Texas, USA

Texas, also known as the "Lone Star State," is famous for its fossil fuels. While Texas has been dominated by shale oil and natural gas, the state has an abundance of wind energy in its open terrain. Besides, its wind energy is very rich, stable and consistent, making it suitable for wind power projects. Texas has been actively developing its wind power generation. Currently, Texas

ranks first in wind power generation in America.

This project is the first overseas wind power + energy storage project of more than 100 MWh in Narada Power. The solution consists of 22 non-walk-in energy storage containers. The storage system can not only store wind power resources during peak generation, but also reduce the volatility of new energy units and actively support the stable operation of the power grid. After the subsequent installation, it will contribute to the local wind power and new energy business in Texas, USA.





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the subsequent installation, it will contribute to the local wind power and new energy business in Texas, USA.

# • 22.5MW/45MWh energy storage project in Jiu Cai Ping, Chenzhou, Hunan province

Invested by State Grid Hunan Integrated Energy Services Co.Ltd. and Narada Power's subsidiary, Narada Energy providing the whole system integration equipment, State Grid Battery Energy Storage Demonstration Project of Phase II in Hunan Province-Chenzhou Jiu cai ping Energy Storage Power Station, was successfully connected to the grid. Chenzhou city is located in the south of Hunan Province, the area where the Nanling Mountains and Luoxiao Mountains intersect and the Yangtze River and Pearl River water systems diverge. The landforms in the city are complex and diversified. There are mainly hills, down lands, almost even plains, and few water surfaces. Mountainous hills accounts for about three-guarters of the total area. Narada Energy overcame difficulties and used a standardized and modular design of prefabricated cabin to integrate the lithium-ion battery system and auxiliary systems such as monitoring, fire prevention and environment into the prefabricated cabin. The scientific structural strength design of the cabin ensures the safety of the transportation and installation process, and the efficient thermal management design can effectively control the temperature inside the cabin. During the project construction process, Narada Energy strictly controls safety and quality in accordance with the relevant State Grid Electricity Construction Regulations. The on-site personnel strictly supervise safety and quality as well as set the relevant progress nodes in advance, to ensure the whole project cycle efficient and high-quality from project design to acceptance and delivery.

The completion of the project has improved the reliability of power supply in Chenzhou and enhanced the power supply capacity of power grid during peak load hours, meeting the huge demand of electricity in summer and ensuring the safe and stable operation of the power grid during the peak season.



It has greatly improved the level of new energy consumption in the province while moderately mitigating power grid infrastructure investment with the ability to support the temporary safety and stability of the power grid.

#### • 50MW/32.44MWh lithium energy storage project in Ireland

In May 2020, Narada Power signed a contract with Ireland Gorman on a large lithium storage and frequency regulation project. After nearly one year and a half of preparation and commissioning, all containers arrived at the project site in early November 2021.

The project consists of 16 40-foot containers, using Narada's third generation non-walk-in lithium iron phosphate system integration technology.



The main purpose of the project is to solve the local grid-side frequency regulation problem. In the context of global efforts to reduce carbon emissions and accelerate energy transition, the lrish government has released a policy declaration document- carbon neutrality "zero-carbon" by 2050. With its unique geographic advantage, Ireland has a huge potential for onshore and offshore wind power.

Battery storage systems serve as an important link between wind power and the grid. The battery energy storage system can effectively solve the problem of large frequency fluctuations in the grid caused by wind power, making fast response, adjusting the frequency, and helping the smooth operation of the grid.

This project is Narada Power's first large-scale containerized FM energy storage project overseas. It has a total of 16 energy storage containers, using a 40-foot non-walk-in side door storage container solution. Meanwhile, it will participate in the local grid side frequency regulation service in Ireland after grid operation, which is of great significance to the local energy storage infrastructure construction

#### • Mobile emergency power vehicle

With the development of economy and society, the market demand for shared electric bicycles is growing rapidly. The shared electric bicycle is different from the shared bicycle in that it needs electricity to travel. Electric bicycles in the market are subject to charging safety hazards such as sun, rain, and other environmental influences while also facing the high cost and difficulty of deploying charging and switching cabinet.

The mobile emergency power supply vehicle uses vehicle-mounted charging and switching cabinet to fully revolutionize the traditional power exchange mode between the cabinet and the electric bicycle in the form of mobile power exchange, allowing the mobile emergency power supply vehicle" to realize the two-way power exchange between the vehicle and the cabinet. This mode helps shared e-bikes realize battery replacement without charging, and the charging process is completed by the mobile emergency power vehicle" without the need for wiring and charging, so that the power exchange cabinet are not longer dependent on the circuit and environment when arranging the cabinet, making the deployment difficulty and cost of the cabinet plummet, and allowing consumers to get more convenient services. Through IOT technology and intelligent power management technology, Narada Energy connects the mobile emergency power truck, power exchange cabinet, battery, e-bike and cell phone APP as a whole system.

By charging at night and using during the day, it can help the power grid to cut the peaks and fill the valleys, and also reduce the charging cost with the difference between peak and valley electricity. At the same time, the vehicles can be combined with new energy generation, which is the key to achieving carbon neutrality in the whole shared mobility.



# • Intelligent operation and maintenance, clean and low-carbon-e-Cloud intelligent energy storage cloud platform

Energy storage power plants are geographically scattered, and there are five major problems in daily operation and maintenance, including difficult maintenance, inefficient operation and maintenance, long cycle time, high cost, and high safety risks.

In order to solve these problems and realize centralized control, effective early warning and scientific decision-making, Narada Energy, a subsidiary of Nanda Power, has developed the e-Cloud intelligent energy storage cloud platform, which unifies remote centralized monitoring and intelligent analysis of the power stations under its jurisdiction through cloud computing, big data analysis and other technologies, so that power station operation and maintenance become efficient and timely. At the same time, the platform can also display real-time data such as total power station discharge and carbon emission reduction.

At present, the platform has opened the functions of operation index analysis and monitoring, fault alarm, intelligent diagnosis, remote maintenance, etc. It generates reports or charts for inquiry on the inspection situation of each power station and the operation of the power station, so as to realize the digitalization, visualization and benefit of management, and ensure the safe, efficient and stable operation of the power station. The platform can implement 24-hour dynamic monitoring of station status, model analysis of huge data volume, track and identify equipment with hidden problems, and issue timely notification to reduce revenue loss and eliminate hidden safety risks. In case of failure, the platform will precisely locate the cause of the failure and the fault module level, inform the alarm information through SMS, email and App, and send task work orders, and realize closed-loop management of task work orders.

Through the application of e-Cloud intelligent energy storage cloud platform, the equipment failure rate of Narada storage power plant is reduced to 2‰, the service response speed is improved to within 2 hours, the active service rate is increased to 99%, and the operation and maintenance cost of energy storage power plant is also greatly reduced.

The cumulative discharge of 336.37GWh is equivalent to energy saving of 96,000 tons of standard coal, emission reduction of 195,000 tons of carbon dioxide and planting of 10.68 million trees.

Narada Energy has established the operation and maintenance system of "1+2+4" (one center, two platforms and four regions). In addition to building two network platforms, namely the Energy Internet Storage Cloud Platform and the Video Networking Platform, the company also has established a three-dimensional operation and maintenance system with Hangzhou Control

Center as the core, and Zhenjiang, Wuxi, Beijing and Guangzhou as the sub-centers to ensure more reliable and reliable operation and maintenance services for customers.







# Ensure the security of communication and big data

Communication and data center fields have been the key markets served by Narada Power. The company has self-developed data center backup power technology, industry-grade total solutions and rich application experience. With the continuous development of digital economy, network traffic surges during the pandemic have led to a large increase in the load of data centers. Once the data center fails to operate, service interrupts or data loses, consequences will be very severe. Narada backup power supply protects the security of communication and big data.

#### • Chengdu Data Center project:

Under the guidance of "reaching the goal of carbon peaking and carbon neutrality", green and sustainability has become one of the core elements for the future development of data centers. MIIT and other six departments have organized the selection of national green data center list in 2021, which covers communication, Internet, public institutions, energy and finance fields, guiding data centers towards the green development path of high efficiency, low carbon, intensive and recycling. After a rigorous selection process, Chengdu Wanguo Data Center, built by Narada Power, was awarded the honorary title of "National Green Data Center".



Chengdu Wanguo Data Center was put into operation in December 2010 and is located in the Western Park of Chengdu High–Tech Industry. As a representative of the new generation of green data center, the Chengdu Data Center adopts advanced technologies including high–voltage DC

and inverter centrifugal chillers to continuously improve its energy efficiency. In addition, by utilizing local high-quality hydropower resources, the Chengdu Data Center has achieved 100% green power usage, effectively reducing carbon dioxide emissions, and was named a Net Zero Carbon Data Center Leader by the ODCC in 2021.

# • From data center to communication base station, Narada backup power supply helps Beijing Winter Olympic Games

The core system of Beijing Winter Olympic Games is fully in the cloud and supported by cloud computing for global broadcasting, which defines a new technical standard for the Olympics. Such a large-scale data service needs an efficient, stable and reliable data center, and the consequences of service interruption or data loss in the event of data center operation failure will be unimaginable. Continuous and reliable power supply is an important guarantee for the uninterrupted operation of data centers, which requires safe and reliable backup power supply as equipment support.

Narada Power has provided more than one million backup batteries for the cloud computing data center of the Winter Olympic Games, and offered the whole business process services covering backup battery solution design, hardware equipment and project integration. In Zhangjiakou Olympic zone, maintaining communication base stations in the snow and ice is the daily work of Narada Power's Olympic communication support team. The competition area has achieved full coverage of high-speed 5G signals. 68 base stations in the competition area use Narada's lithium iron phosphate battery as backup power supply. From the uninterrupted operation of the "Olympics on the Cloud" to the full signal of the competition, Narada Power is working hard with its hardcore strength in the "behind-the-scenes track" and serving the Winter Olympics with green energy.





#### • Hangzhou Asian Games communication security

The stable 5G network covering the Asian Games venues will bring a high-speed and stable communication experience to the venue personnel and hundreds of millions of spectators with a high-speed and stable communication experience. Hangzhou Olympic Sports Center is one of the largest sports centers in China and the main stadium for the 2022 Hangzhou Asian Games. It is also the main stadium for the 2022 Hangzhou Asian Games. During the Games, it will be responsible for the opening and closing ceremonies and athletic during the Games.

As an official partner of the Hangzhou Asian Games, CMCC will provide comprehensive and professional support for the communication network of the Games. Among them, in Hangzhou Olympic Sports Center main venue, CMCC's communication backup power supply uses Narada Power's lithium iron phosphate batteries.

Narada Power will continue to help the Asian Games network and intelligent Asian Games information construction, and do a good job of communication security services.



# Green energy drives the future

Under the impetus of the global consensus of "carbon neutrality", the energy transformation focusing on the development of low-carbon and green energy, with energy conservation and emission reduction as the strategic breakthrough, has been launched globally. In China's 14th Five-Year Plan and the outline of the 2035 Vision, it is mentioned that the "continuously improving environmental quality and accelerating the green transformation of the development mode" will be a priority. In order to achieve this goal, it is imperative to promote green and low-carbon travel.

#### • Green and shared travel

In recent years, the production and sales of electric two-wheelers in China have continued to grow at a high rate. Overall domestic annual sales of electric vehicles grew to 44 million units, including about 9.5 million lithium-ion vehicles, mainly used for shared travel. Lithium-ion battery usage reaches 10GWh as demand for high-capacity batteries grows. By the end of October 2021, the total number of registered users on the online platform of Hello Travel reached 514 million, the largest number of registered users in the two-wheeled green travel industry. Narada Power and Hello Travel have cooperated deeply to promote product development and verification, solve the shortage of material supply, improve product quality and guarantee delivery.

Narada Power has become a core supplier of batteries in Hello Travel, and will start more in-depth and comprehensive cooperation with it in 2022.

With the development of new material system, the low-temperature charging performance of lithium-iron phosphate cells has been greatly improved. Under adiabatic conditions, lithiumiron phosphate batteries can charge at -20°C and discharge at -30°C. Meanwhile, the charging energy of such batteries registers more than 95% of the rated energy, and the low-temperature discharge energy more than 60%, which demonstrate that the product performance has reached the industry leading level.

Narada Power will put more than 500,000 sets of lithium iron phosphate batteries into operation in 2021. The two-wheeled vehicles loaded with Narada batteries will be stationed in more than 400 cities, accelerating the intelligent transportation in counties, towns and cities and small prefecture-level cities.





Civilian lithium products

#### • Graphene battery technology continues to iterate, boosting high-end mobility

Graphene possesses excellent optical, electrical and mechanical properties, promising for use in materials science, micro and nano processing, energy, biomedicine, and drug delivery. It is considered a revolutionary material for the future.

Narada Power has continued its research work on the iteration of graphene technology. In 2021, based on the second-generation design, Narada Power mainly carried out the continuous development of the third-generation graphene battery. It adopts the ultra-thin design featuring 5 positive and 6 negative electrodes and adjusts the slope of the cell slot to increase the reaction area of the electrode, which effectively improves the specific energy of the battery. The third-generation graphene batteries have been used in Yadi electric bikes on a large scale due to excellent performance. The performance of lead-acid batteries has been greatly improved, and the use of graphene has resulted in longer battery life, faster charging speed, and more stable charging and discharging cycles under extreme cold conditions.

The battery is compatible with many Yadi models. Its advanced performance and excellent quality have been highly evaluated by Yadi Group and customers, becoming the core competitive advantage of Yadi e-bikes. The Yadi electric bikes equipped with the thirdgeneration graphene batteries have won the favor of the market and users as soon as they were launched, becoming the hottest-selling electric motorcycle product today and has witnessed continuous nationwide sales.

#### • CCTV online live broadcast of electric bicycle safety experiments

On November 12, 2021, in a national firefighting relay broadcast sponsored by the Fire and Rescue Bureau of the Ministry of Emergency Management and CCTV, the Zhejiang Fire and Rescue Headquarters and Hangzhou Fire and Rescue Detachment, together with Narada Power, conducted a live online electric bicycle safety experiment, instructing viewers on the matters they should pay attention to when choosing a battery and pointing out the safety issues they should pay attention to in the daily use of electric bicycle batteries. The live broadcast was conducted at the Narada Power Lab.

In the live broadcast session conducted by Narada Power Lab, the experiments simulated the scenes of overcharging, shortcircuiting and collision of electric bicycle batteries in life. A total of three tests were conducted, namely the battery overcharge test, the puncturing test and the short-circuiting test. For each test, two groups of samples were selected for comparison: one group was the lithium-ion battery developed and produced by Narada Power, and the other group was the unqualified products collected by Hangzhou Fire in the market. Through these three experiments, Narada batteries are outstanding in terms of safety advantages. Yu Wenzhi, director of civil lithium technology research and development of Narada Power, analyzed the main reasons for the differences in these experiments: the material of lithium-





Puncture test

iron batteries is safer than ternary batteries, which attributes to the material system itself. In terms of structure, the pressure relief valve and BMS provide good protection for the batteries, and the quality is guaranteed by the strict system. In contrast, most of the batteries produced by unqualified manufacturers are the B and C products eliminated by major manufacturers. There are even many such batteries disassembled and found to lack a protective plate device inside, without quality guarantee.

Finally, the fire department and Narada Power once again remind users: for the sake of lives and property safety, please ensure that electric bicycles are not in the house or the elevator. Correctly use batteries to minimize the safety risks!

#### Rail transit business

Lead batteries, featuring stable voltage and large capacity, can be widely used in urban rail transit, mainly applicated in uninterruptible power supply, lighting systems, vehicles, screen doors and other power equipment.

"ND-Narada" 12NDG series batteries have been used in Hangzhou Metro, Shenyang Metro, Nanjing Metro, Chongqing Metro, Guiyang Metro, etc., to ensure the safety and stability of subway operation.





Subway integrated monitoring system

#### Automotive energy-saving battery

Automotive energy-saving battery is an essential device in the vehicle starting and stopping system. Narada automotive energy-saving battery is an ideal battery for mini hybrid vehicles, with

starting and stopping system, braking energy regeneration and other fuel-saving technologies. It also has better deep discharge capability and superior starting capability under low charge state, with vehicle starting and stopping system, it can achieve energy saving and emission reduction while ensuring efficient operation, safety and environmental protection.



Oversea truck applications

Narada Power provides overseas customers with oil-to-power truck solutions, involving small city sweepers, city garbage trucks, short-haul logistics trucks, fire trucks and other suitable models.



**Oversea EMOSS truck** 

## **Recyclable industrial chain**

Narada Power has created two industrial closed loops, "lithium-ion battery recycling industry chain" and "lead battery recycling industry chain". By constructing the platform for lithium-ion and lead battery recycling as well as comprehensive utilization of new materials, the company has got its products a second life, reducing the consumption of natural resources, and promoting the sustainable development of green energy.

#### Lithium-ion battery recycling industry chain

The recycling of used lithium-ion batteries has the dual significance of comprehensive resource recycling and environmental protection, the key to constructing a closed chain cycle for the new energy vehicle industry. Although power lithium-ion battery recycling is in its initial stage in China, the policy framework for power lithium-ion battery recycling has been basically established. In recent years, the MIIT hasreleased a series of measures, such as the "New Energy Vehicle Battery Recycling Pilot Implementation Plan" and "Industry Standard Conditions for Comprehensive Utilization of New Energy Vehicle Battery," which emphasize the promotion of the construction of the new energy vehicle power battery recycling system. The system will be promoted from recycling, secondary utilization and traceability supervision to guide the healthy development of the industry. With the gradual improvement of relevant laws and regulations, the comprehensive recycling industry of lithium-ion battery will be further standardized and form a scale, which is beneficial to the company's lithium-ion battery recycling.

Narada Power's subsidiary Huabo New Materials, located in Jieshou Tianying Circular Economy Industrial Park in Anhui Province, is mainly engaged in the recycling of lithium-ion batteries. The company has set up a technology development group together with Zhongnan University and other famous universities in China, and has its own R&D team to carry out key technologies of lithium-ion battery recycling and reuse. At present, the first phase of 25,000 tons of waste lithiumion battery recycling project has been put into operation.

The recycling of used lithium-ion batteries has the dual significance of comprehensive resource recycling and environmental protection, the key to constructing a closed chain cycle for the new energy vehicle industry. Use waste lithium-ion batteries to produce battery-grade raw materials

of lithium, nickel, cobalt and manganese, which then produce the ternary precursors and cathode materials, which are directly used in the manufacture of lithium-ion battery cells. Such practice is of great significance to the construction of the closed loop of the new energy vehicle industry chain and to guarantee the supply of lithium, nickel and cobalt strategic resources.

#### • Lead battery recycling industry chain

China's recycled lead industry has been in the process of standardization since 2010, and the concentration of the industry has continued to improve. According to the data of NBS, the output of recycled lead in China has increased from about 1,194,100 tons in 2015 to about 3,195,100 tons in 2020, and the percentage of recycled lead output has reached 48%. However, there is still a big gap with the 80% of developed countries. At the same time, in recent years, in order to regulate the recycling industry of used batteries, Chins has issued a series of laws and regulations, such as the "Standard Conditions for Recycled Lead Industry", "Management Measures of Business License for Hazardous Waste ", "Solid Waste Pollution Prevention and Control Law", etc. These laws strictly limit the annual processing volume and the issuance of emission indicators, further conducting strict regulation and audit of collection, transfer, storage, treatment and other important links. The corporate social responsibility of battery products is further extended, and the environmental regulation of the renewable resources industry is gradually extended to the recycling of used batteries. The construction of the whole closed-loop channel from product to recycling, treatment, and reuse has become the focus of industry development. From 2015 to 2018, Narada Power acquired Anhui Huabo Renewable Resources Technology Co. Ltd. to enter the environmentally friendly resource recycling industry and open up the battery storage industry chain. The acquired company, located in Anhui Jieshou Tianying Circular Economy Industrial Park, is the largest recycling industrial park with the most complete industrial chain in China. It stands as a national "urban minerals" demonstration base, with outstanding location advantages. With the capacity of lead recycling, Huabo Technology is the largest and most technologically advanced lead recycling enterprise in China. With the strictest environmental control system for lead battery recycling and the world's leading technology and equipment, its recycling of waste batteries has achieved green, environmentally friendly and harmless treatment in the whole process, effectively solving the key technical problems in the industry such as high comprehensive energy consumption per unit of product and low comprehensive utilization rate of

resources, making the recycling rate of metals and plastics reach over 99%. In November 2018, the second phase of Huabo Technology was successfully put into production. The total annual processing capacity of waste lead batteries has reached 1.2 million tons, making it the world's largest lead resource recycling plant.

For two consecutive years, its "Clean and Efficient Utilization Technology of All Components of Waste Lead Storage Battery" has been selected as the "Recommended Catalogue of Energy-saving Technology Products for National Communication Industry" issued by MIIT. The technology has formed a full-component clean and efficient utilization process of waste lead batteries with independent intellectual property rights from key equipment to process technology, and has been industrialized, which has played a positive role in promoting energy saving and efficiency in industry and information technology and helping the world achieve the goal of "peaking carbon emissions and carbon neutrality".

In 2021, Huabo Technology conducted its first phase upgrade in technology and environmental protection engineering. That helps improve the comprehensive utilization level of waste batteries, greatly enhance the utilization rate of oxygen and fuel, and optimize the ratio of peak and valley charging and discharging on the energy storage side, saving natural gas by 3m3 per ton of lead. With this, Huabo Technology has fully mastered the two technologies of "oxidation furnace + reduction furnace" and "oxidation-reduction integrated furnace", with its production scale in the leading position in the industry.

# **For a Better Environment**

Many business leaders around the world are focusing on addressing climate change and environmental degradation as major new risks and opportunities for the competitiveness, growth and development of their businesses. Narada Power is committed to the harmonious coexistence and sustainable development of enterprise and environment as its environmental policy, integrating the concept of sustainable development into the whole process of operation. From product design, manufacturing, application to recycling, the whole process is green, environmentally friendly and low-carbon. Through the integration of the upstream and downstream industry chains, it creates a closed-loop of lithium and lead industrial chains, and realizes the harmonious integration of enterprise growth with the environment protection and society development.

# Green sustainable development

Made in China 2025 is a strategic document issued by the State Council in May 2015 to comprehensively promote the implementation of a strong manufacturing country. It is a national action program for the first decade of China to become a major manufacturing country and green, sustainable development.

Narada Power has been practicing the concept of green development and has perfected the green manufacturing system with green standards, factories, products, supply chains and parks as its core. Through the integration of resources and independent innovation, the company has improved the efficiency of "low-carbon development and transformation", bringing systemic and sustainable innovation value and demonstration significance to the whole industry and even the whole industrial chain from upstream to downstream.

#### • Reen products

Narada power has six products to be selected as national green products:

Order	Green product model	Entry batches, time	Production unit
1	6-EVF-100 lead-acid battery for electric road vehicles	The fourth batch (2019)	Jieshou Huayu Narada Power Co., Ltd.
2	GFM-1000 RC lead-carbon battery	The fifth batch (2020)	Zhejiang Narada Power Co., Ltd.
3	6-GFM-180HR high power valve- regulated sealed lead-acid battery	The fifth batch (2020)	Zhejiang Narada Power Co., Ltd.
4	12HTB200F valve-regulated sealed lead-acid battery	The sixth batch (2021)	Zhejiang Narada Power Co., Ltd.
5	GFM-1000E valve-regulated sealed lead-acid battery	The sixth batch (2021)	Zhejiang Narada Power Co., Ltd.
6	REXC-600 lead-carbon battery	Sixth batch (2021)	Zhejiang Narada Power Co., Ltd

Narada Power designs and develops products for the new energy industry based on the whole life cycle concept, from acquiring raw materials, production, use, end-of-life treatment, recycling, and final disposal to improving environmental performance.

It provides clean power for new energy vehicles and light electric vehicles. Committed to reducing the consumption of fossil energy, it has explored new modes of green travel such as sharing and power exchange to promote zero-carbon emissions. At the same time, the company also focuses on intelligent energy storage service, adopting international advanced energy storage technology to provide safe and reliable products and services for global users. After years of exploration and accumulation, the company's energy storage has achieved full application and coverage from industrial to residential, from grid to household, from fixed to mobile vehicles. Through advanced, continuous manufacturing technology, its products can greatly reduce pollutant emissions and further improve the utilization rate of renewable resources, meeting or even exceeding the requirements of national standards.

#### • Green plants

Narada power has three factories honored as "green factory":

Order	List of selected green factory enterprises	Entry batches, time
1	Zhejiang Narada Power Source Co., Ltd.	The second batch (2017)
2	Anhui Huabo Renewable Resources Technology Co., Ltd.	The second batch (2017)
3	Jieshou Huayu Narada Power Source Co., Ltd.	The second batch (2017)

As a key part of building a green manufacturing system, creating a green factory is a key task in implementing the green manufacturing project, which has a leading role in promoting structural optimization, upgrading, quality improvement and efficiency enhancement in various industrial sectors.

Narada Power focuses on a series of managements, ranging from plant environment, production process, energy management, to ultimate products and other aspects. It reduces energy consumption in the production and operation process through technology, management and other manners. Meanwhile, green package is also adopted, including suitable package, reuse, recycling materials, etc., so as to improve the recycling rate of materials. The utilization rate of recycled wood is over 90%. Its five factories use the green energy provided by the photovoltaic + energy storage power plants developed and manufactured by the company, which plays a good role as a model to promote the construction of national and industry demonstration system of green manufacturing.

#### • Green supply chain

Narada power has two factories honored as "the company boasting green supply chain":

Order	List of enterprises selected for green supply chain management	Entry batches, time
1	Zhejiang Narada Power Source Co., Ltd.	The fifth batch (2020)
2	Anhui Huabo Renewable Resources Technology Co., Ltd.	The sixth batch (2021)

Narada Power has established a product traceability system and built a full tracking management, tracking products from raw materials to delivery and then to recycling. Meanwhile, the company also cooperates with logistics suppliers to carry out reasonable layout and planning of transportation routes while taking measures such as reverse logistics, shortening transportation lines and improving vehicle loading rates to achieve energy saving and emission reduction. Narada Power continues to build a comprehensive utilization platform for lithium regeneration, lead regeneration and new materials to reuse products, reduce the consumption of natural resources, and promote the sustainable development of green energy.

## **Preservation of environment**

Narada Power has set up an environmental management committee under the direct responsibility of the CEO to be in charge of environmental protection work, with a special environmental management department and environmental engineers responsible for environmental management. The company has formed an environmental management network system featuring complete and throughout by constructing organization structure. It also implements the responsibility system for environmental protection, setting up environmental objectives and performance assessment, and signing responsibility letters with each responsible department to make it clear that environmental issues are vetoed by one vote. In 2021, Narada Power and its subsidiaries were not subject to administrative penalties for environmental issues during the reporting period.

In terms of environmental management system, Narada Power has a perfect environmental management system and environmental protection facilities. Starting from adopting production technology and importing advanced equipment, it has strengthened the construction of environmental protection facilities, increased investment in R&D of production processes, and adopted a series of environmental protection management systems through "three waste and energy resource management" to reduce the emission of pollutants. The company operates in strict accordance with environmental laws and regulations and the requirements of the environmental management system. In July 2000, the company passed the ISO14001 environmental management system certification of DNV for the first time. By 2021, all nine plants of Narada Power have passed the environmental management system certification.

#### • Environment policy

Committed to achieving coexistence and sustainable development between company and environment.

#### • Environment goals

Up-to-standard discharge: 100% up-to-standard discharge

Energy saving and emission reduction: taking 2017 as the benchmark, the company achieves a 10% reduction in resource consumption and three waste emissions per unit of product in five years.

#### Pollutants emission

According to the relevant national regulations, the pollutant emissions of Narada Power and its subsidiaries are mainly waste water, waste gas, solid waste and noise. The emission concentrations of all pollutants are in line with the relevant national standards by 2021. Narada Power has taken the lead in the industry to complete the issuance of the new version of emission permits, and strictly implement the management of emission and work after permission in accordance with the permits, and all subsidiaries have obtained emission permits.

#### Environmental protection input

Sufficient funds are essential for good environmental protection work. The company absolutely provide financial support whenever the environmental protection work has the need. Meanwhile, in the approval process, it also opens green channels and provide convenience for special cases while making the funds implemented as soon as possible.

#### Environmental monitoring

Self-monitoring is an important means to implement the main responsibility of enterprises and to prove their innocence. Narada Power carries out environmental self-monitoring work according to the requirements of relevant laws and regulations and standards to ensure long-term stable emission of pollutants.

Environmental monitoring personnel, as one of the key aspects of self-monitoring, are responsible for providing fair, scientific and reliable monitoring data. The company has set up specialized environmental monitoring positions and is equipped with full-time laboratory engineers and environmental engineers, all of whom have obtained the corresponding qualification certificates. When it comes to sampling and analysis equipment, the company is equipped with Qingdao Laoying company's automatic smoke (gas) tester, medium flow rate intelligent TSP samplers and the ICP plasma emission spectrometer of PerkinElmer the United States, graphite furnace atomic

absorption spectrometer and other advanced equipment for environmental monitoring. Narada Power possesses excellent quality control measures, developing environmental monitoring quality control system, using standardized standard samples, quality control samples, etc. So as to control the quality of monitoring. Since 2014, it has participated in external laboratory proficiency testing every two years, and the results of proficiency testing are all satisfactory, with the robust standard deviation registering  $\leq |0.2|$  In 2021. It has also participated in external laboratory proficiency testing organized by China National Testing and Certification Corporation. There were 31 laboratories applied to participate, among which 24 are CNAS-accredited laboratories, and finally 26 achieved satisfactory results. Narada power comprehensive ranking of lead and cadmium is No. 1.

### • Extended responsibility for lead-battery enterprise producers According to the requirements of "Pilot Program of Centralized Collection and Cross-Regional Transfer System for Lead Battery Producers" (Environment Office Solid Body [2019] No. 5) and "Notice on Continuing the Pilot Program of Centralized Collection and Cross-Regional Transfer System for Lead Battery Producers" issued by the Ministry of Ecology and Environment and the Ministry of Transport's (Environment Office Solid Body Letter [2020] No. 726), Narada Power has actively participated in the pilot program of centralized collection and cross-regional transfer system for lead battery producers.

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It has also taken the initiative to assume the extended responsibility of producers and recycles waste lead batteries through sales channels. At present, the company has established 22 transportation centers and more than 370 collection outlets in 7 provinces and cities, including Zhejiang, Anhui and Hubei provinces, forming a fully closed industry chain featuring "raw materials-battery manufacturing-product application-operation service-resource recycling-raw materials". It has also built an ecological recycling system to enhance the vitality of the industry. Its national standardized recycling rate of waste lead batteries reaches more than 60% in 2019, 2020. and 2021.

Narada Power also actively participates in the preparation of standards related to the responsibility extension of enterprise producers, leading the development of seven group standards for battery recycling in 2021, such as "Code for Waste Lead Battery Recycling Network", "Code for Management of Waste Lead Battery Recycling Network" and "Technical Specification for Cleaning Recycled Lead Waste Plastics". At present, the first draft of the relevant standards has been reviewed and revised.

#### Cleaner production

Cleaner production is to continuously take measures to improve design, use clean energy and raw materials, adopt advanced process technology and equipment, improve management and comprehensive utilization, so as to reduce pollution at the beginning, improve the efficiency of resource utilization, and reduce or even avoid discharging pollutants in the process of product production and usage. That aims to reduce or eliminate possible hazards to human health and the environment.

The core of cleaner production is "energy saving, consumption decreasing, pollution reduction and efficiency enhancement". As a new development strategy, cleaner production changes the old passive and lagging means of pollution control, and emphasizes the reduction of pollution before it occurs. This approach not only reduces the burden of end-of-pipe treatment, but also effectively avoids its harms, representing an effective means to control environmental pollution. Narada Power implements the cleaner production concept throughout the product life cycle, especially focusing on the application of new technologies and techniques, and on the green products' production and use. Each subsidiary company regularly conducts clean production audits in accordance with the requirements of the competent authorities and focus on continuous improvement. With continuous efforts in clean production, Narada Power has been awarded as a national clean production demonstration enterprise.

#### Environmental information disclosure

Narada Power actively carries out environmental information disclosure in accordance with the Administrative Measures for Legal Disclosure of Enterprise Environmental Information and the requirements of relevant standards for information disclosure of listed companies. The company regularly discloses important environmental information such as administrative approval, operation of pollution facilities and environmental monitoring through the national assessment and management information platform for environmental impact, national management information platform for emission permit, data management platform for key pollution source monitoring and annual reports of listed companies.

#### Hazard-free management

Narada Power started to introduce OC080000 Harmful Substance Process Management System in 2008, strictly controlling the risk of harmful substances in the whole process of product production and delivering the products to meet the standards of hazardous substances control at home and abroad, such as the Management Measures for Restriction of Hazardous Substances in Electrical and Electronic Products, China GB/T26572, EU RoHS/REACH Directive, etc. Through strict source control, process control and product testing, the company ensures that the following ten hazardous substances in its products meet the requirements: lead, mercury, chromium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers, di(2ethylhexyl) phthalate, tolyl butyl phthalate, diisobutyl phthalate butyl phthalate, diisobutyl phthalate.

# Green and low carbon management

#### • Greenhouse gas inventories

Since 2011, Narada Power Supply has conducted inventories of six greenhouse gases within the organization's production boundary for 11 consecutive years in accordance with the requirements of ISO14064 standard, compiled an enterprise greenhouse gas inventory report, and disclosed the results of the inventory in the corporate social responsibility report. The greenhouse gas emissions of Lin' an Narada Power and Linping Narada Power in 2021 are as follows:

#### Greenhouse gas emissions in 2021(by category)

Greenhouse gas	CO2	CH4	N20	HFCs	PFCs	SF6	Total emissions (t-CO <sub>2e</sub> )
Emissions (t–CO2e)	156462.71	18.83	2.73	0	0	0	156484.28
Percentage of total emissions	99.99%	0.01%	0.00%	0	0	0	100%

#### Greenhouse gas emissions in 2021(by scope)

Emission scope	Direct Emissions	Energy indirect e	Total emissions	
		Electricity	Steam	(t-CO <sub>2e</sub> )
Emissions (t-CO2e)	378.15	81615.51	74490.63	156484.28
Proportion of total emissions	0.24%	52.16%	47.60%	100%

The indirect emissions of electricity and steam account for 99.76% of the total emissions in 2021, of which the indirect emissions of electricity account for 52.16% and the indirect emissions of steam account for 47.60%. That shows the energy structure of Narada Power has become more reasonable, and the proportion of fossil fuels registers less than 0.5%. Therefore, by improving the management methods and production technology, the energy utilization rate can be improved to effectively reduce the greenhouse gas emissions of the unit products.

#### • Cleaner production

Cleaner production is to continuously take measures to improve design, use clean energy and raw materials, adopt advanced process technology and equipment, improve management and comprehensive utilization, so as to reduce pollution at the beginning, improve the efficiency of resource utilization, and reduce or even avoid discharging pollutants in the process of product production and usage. That aims to reduce or eliminate possible hazards to human health and the environment.

#### • Carbon verifications

The National Development and Reform Commission has published three batches of GHG emission accounting methods and reporting guidelines for enterprises in 24 industries. Since 2011, Narada Power has compiled carbon emission reports in accordance with the requirements of "Greenhouse Gas Emissions Accounting Methodology and Reporting Guidelines for Machinery and Equipment Manufacturers (for trial implementation)" for 11 consecutive years. It has accepted carbon verification by administrative authorities and third-party qualified institutions every year since 2016, and all verification data are true and accurate.

#### • Participation in CDP of the Center for Global Environmental Research

CDP is an international non-profit organization based in London, formerly known as the Carbon Disclosure Project. In 2020, more than 9,600 companies worldwide participated in the CDP, including more than 1,300 Chinese companies. Narada Power started to disclose greenhouse gas emission information on the CDP platform in 2018 and water conservation information in 2019.

#### • Participation in the Science Based Targets initiative

The Science Based Targets initiative (SBTi) is an international initiative launched by CDP, WRI, WWF and UNGC. It aims to provide companies with a clear framework for companies to set up climate science-based emission reduction targets, as a way to ensure that their targets for the magnitude and rate of GHG emission reductions are consistent with the Paris Agreement's control the global temperature increase to "less than 2° C".

#### Energy management

Natural resources are the material basis for human's survival and development. However, with the development of industrial civilization and the growing population of society, energy scarcity has become a bottleneck and an obstacle to the sustainable development of society. For companies, energy is also a major challenge. Using energy rationally and achieving its largest value is an important factor the sustainable development of enterprises.

The company attaches importance to energy management work, adopting technology, management and other means to reduce energy consumption in the production and operation process while improving energy efficiency and reducing greenhouse gas emissions. Its five plants use photovoltaic+storage power plants to provide renewable green energy for production and offices. Meanwhile, it also strives to achieve the sustainable development of both enterprises and the environment through reusing wastewater after treatment, increasing renewable energy proportion, using waste heat and other measures. By 2021, three plants under Narada Power have passed the ISO50001 energy system certification and four plants are introducing the energy system.

On top of that, it also vigorously implements energy saving and environmental protection measures. In order to improve energy efficiency and reduce greenhouse gas emissions, it adopts a series of measures, such as making full use of renewable energy and waste heat, taking feedback type charging and discharging machine renovation, energy online metering and other renovations. As such, energy saving and environmental protection have been integrated into the company's operation and employees' behavior. In 2021, the company has developed and implemented more than 60 energy-saving management programs, saving energy costs of more than 11 million RMB.

# **V** Common Development

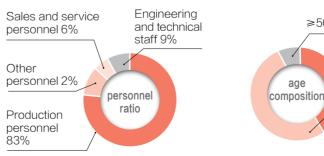
## Caring for our employees

In order to support the rapid transformation and upgrade of Narada Power and the globalization of its business, it is particularly important for the company to effectively, and reasonably ensure the "selection, employment, cultivation and retention" of talents while providing distinctive learning, development and promotion opportunities and platforms for diverse employees so that they can fully develop their skills and receive reasonable material and non-material rewards. That is the company's main tasks in 2021.

# Diverse employees

At the end of December 2021, the company had 7,861 employees. In China alone, there are employees from 23 ethnic groups. The average age of employees is 38 years old, with 36.38% female employees and 545 middle and senior managers, of whom 95 are women, accounting for 17.43%. Narada Power strictly abides by national regulations and international conventions to guarantee the equality of male and female employees and strictly prohibit employment discrimination.

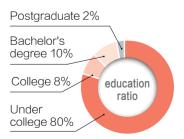
employees are as follows.



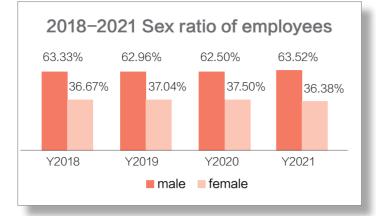
#### The Company's personnel ratio, education ratio and age composition of

≥50 years old13%

<35 years old 40% 35-50 years old 47%



The proportion of female employees has remained stable in recent years and is on the rise. The company has provided equal career development platforms for female employees. In recent years, the proportion of women in the middle and senior management of Narada has remained stable, reaching 17.43% in 2021.



# Protect the basic rights and interests of employees

Narada Power strictly abides by labor laws and regulations, without recruiting any child or underage workers. It has signed labor contracts with all employees according to the law, with a signing rate of 100%. More and more employees are optimistic about the development of Narada, among which 232 employees have signed open-term employment contracts.

In recruitment, Narada insists on the principle of equal employment, opposes discrimination and provides equal employment opportunities for candidates. The company follows the national policy of stable employment and actively contributes to the development of the society. By the end of 2021, Narada has accepted 66 employees who have retired to return to work; helped poor households around the company to get out of poverty, and donated 1.267 million yuan to the society. Meanwhile, the company actively responds to the national policy on the placement of people with disabilities, placing 26 people with disabilities. For those that cannot be placed, the company pays the employment guarantee fund to the government. In 2021, it has paid a total of RMB 3.334 million as employment guarantee fund for the disabled.

In terms of salary and compensation, training opportunities, job promotion, termination of labor contract and other human resource management matters, it has followed the principles of equal pay for equal work and takes fair promotion principle. It does not engage in or support any discrimination based on race, ethnicity, social origin, social class, ancestry, religion, physical disability, gender, pregnancy, sexual orientation, family responsibilities, marital status, union membership, political views, age, or any other prohibited acts by law or regulation.

Narada Power respects the employees' right to freedom of association and collective bargaining in accordance with the law, and does not oppose employees' right to join a legally registered local labor union on a voluntary basis and without violating local laws.

## Compensation and benefits

Narada Power provides employees with excellent and special compensation and benefits, which are closely related to employees' development, personal performance, work performance, and organizational performance. It also conducts surveys on salary data through various means and adjusts employee salaries according to the survey results to ensure the relative competitiveness of salaries. The total salary paid in 2021 registers 768 million, with an 8.4% increase in per capita salary year-on-year.

In addition to paying all statutory social insurance (including basic pension insurance, basic medical insurance, work injury insurance, maternity insurance, unemployment insurance) and housing fund for employees, Narada Power has also purchased personal accident insurance for middle and senior employees, core employees, technical support, customer service and production employees. In 2021, it has invested RMB82.839 million in social security and commercial protection for its employees.

In addition, it has also designed and provided various corporate benefits for employees: Allocating a fixed amount of funds for departmental staff reunion according to the number of employees.

Establishing a medical office as a supplement to employees' medical protection. Providing benefits such as holiday benefits, employee medical checkups and working meal allowances.

Regularly arranging routine physical examinations for employees and gynecological screening for female employees.

Providing gifts/consolation money for employees' birthdays, marriages, births, serious illnesses and deaths of immediate family members.

Trade unions at all levels organize staff various activities, such as birthday parties, basketball

games, cultural art festivals, badminton clubs, inter-work exercises, tea ceremonies on Women's Day Holiday on March 8th, etc. At the same time, every year before the arrival of the New Year, the reunion organizes celebration of the development of Narada Power.

In 2021, the labor unions at all levels of the company have consoled 144 people and issued a total of 75,000 RMB

With its development, the company will continue to improve the corporate welfare system and provide high-quality benefits for employees. Corporate welfare is applicable to all employees working in Narada Power.

# Staff recognition

The continuous development of the company cannot be achieved without the hard work of all employees, especially the leading role of advanced employees. It adjusts the system of evaluating merits and awards on the basis of 2020, and further increases the recognition of the advanced. In the year of 2021, the company selected outstanding teams and individuals, including all employees, for the Special Contribution Award, the Most Influential Project, the Business Quality Award, the Innovation Achievement Award, and the Management Excellence Award. In terms of awards, it has streamlined the awards and increased the total amount of awards. Compared with 2020, the number of awards has been streamlined from 18 to 10, and the total amount of awards increased by 60.93%. At the same time, through OA, Narada Power Light, internal magazines and other channels to increase the recognition and publicity of advanced employees, so as to fully expand the influence of advanced employees.

# Employee satisfaction

The company attaches importance to the communication and exchange with the employees. In order to fully reflect the company's social responsibility, create a comfortable and good working environment for employees, protect the living needs of employees, and enhance the internal cohesion of the company, Narada Power has prepared a multi-dimensional questionnaire involving employees' personal interests. A comprehensive satisfaction survey was conducted on various aspects such as job position, company management, salary and benefits, canteen and dormitory, and public facilities, and the results of the satisfaction data were statistically analyzed and submitted for improvement measures.

The survey results show that the overall satisfaction of employees is basically the same as that of 2020. The satisfaction of employees with their work positions and daily management has got higher scores.

The company's satisfaction scores are relatively low for salary level, welfare policy, meal prices, meal hygiene, freshness of meals, canteen staff service, etc. While in 2021, the average monthly employee turnover rate was 4.03%, it has remained below 5% for several consecutive years.

## Establishing a sound trade union organization to effectively protect the legitimate rights and interests of employees

Under the leadership and support of the West Lake District Federation of Trade Unions and the Party Committee of the company, Narada Power Union has been caring for the life of the employees, giving full play to the role of the union as a link, enhancing the ownership spirit of the staff and encouraging them to participate in the democratic management of the enterprise. At the same time, it has strengthened the construction of its own management system, so as to improve the overall work quality of the union and actively protect the legitimate rights and interests of its employees.

In 2021, in order to give full play to the role of the Staff Council, the company encouraged its staff representatives to actively participate in the democratic management. The company's labor union has considered many documents through the work councils, which plays a good role in promoting the democratic management of the enterprise. Employees are the basic constituent individuals of the enterprise organization. The maintenance of employees' legitimate rights and interests directly affects whether they can devote themselves to their work. In Therefore, the trade union organization should shoulder the responsibility of supervising the legal rights and interests of employees. In 2021, a research team led by the chairman of the labor union of the joint-stock company went to Linping, Wuhan, Jieshou and other subsidiaries to organize staff meetings. They aimed to get to know employees' daily life in each company, visit the





Staff meetings

poor, and guide the local labor union to fully mobilize the external and its own resources as a way to organize employees to help each other. Besides, the labor union is also expected to actively participate in the rectification of various problems within the enterprise, continuously follow up on the implementation of the feedback from employees by local branch unions, maintain good communication with local management, and actively plays its supervision role.





# **Employee benefits**

Narada Power has designed and provided various corporate benefits for employees, such as holiday benefits, employee medical checkups, condolence money, etc. Meanwhile, with its development, it continues to improve the corporate welfare system and provides high-quality benefits for employees. Corporate welfare is applicable to all employees working in the company. In 2021, the company's labor union insists on serving employees as the core, playing the linking role and focusing on "key and small things" that employees are concerned about, such as salaries, holidays, labor intensity, occupational health, team atmosphere, organizational development, skills training, advanced recognition, etc., so that employees can feel the new changes and experiences brought by the common development with the enterprise.

Efforts and progress, thanksgiving and giving back have always been an important part of its culture. The company's culture of holding birthday parties for employees on a regular basis has been inherited, representing the company's concern and care for its staff.

In the current situation of the normalization of the pandemic, Narada Power seriously explores the new ideas of staff cultural and sports activities, with small activities as the main focus and taking account of staff's work characteristics and hobbies, vigorously promoting the extensive holding of cultural and sports activities.









Holiday benefits

Employee medical checkups



Group birthday party

## Pandemic prevention and control

In 2021, Narada Power has continued to do a good job of adopting regular pandemic prevention and control, and has taken various measures to cope with the challenges of the pandemic. It has implemented an all-round pandemic prevention and control system, ranging from prevention and control mechanism, personnel quarantee, production plan, material preparation, to operation guarantee, pandemic risk investigation and information feedback, etc., and made every effort to ensure the health and safety of its employees. During the reporting period, there were no employee infections or mass infections.



Regular pandemic prevention and control

#### 믓 Canteen

The company has set up staff canteens, which provide working meals for employees. The canteens are spacious, with a wide variety of dishes and safe and hygienic food. The company strengthens the management of canteen food safety by means of qualification control of catering raw material suppliers, canteen environmental hygiene inspection, food storage regulation, and food sampling to ensure a neat, orderly dining environment and food safety for employees. In addition, through the collection of employees' opinions, it also constantly changes the dishes to ensure the nutrition and hygiene of staff meals.



Staff canteens

# Dormitory

The company has staff dormitories, which are equipped with closet, table and chairs, air conditioning and other living facilities, providing good guarantee for staff. Staff can apply for accommodation according to their needs.



# **Greening**

The company pays attention to environmental greening and beautification, carrying out activities such as greening education and tree planting festival to raise employees' awareness of green ecology and improve the environmental quality of the factory.



Tree-planting activities

Staff development

Double-path development of job system

Reconstruct the job system and build a platform for staff development: With the rapid development of the national economy and the gradual entry of the 00s into the workplace, the demand for career development is not only limited to "salary", but also how to meet the career development of the new generation, which is a new issue for every company.



Anhui Group staff dormitories

Based on the company's business diversification and cross-regional development, its Human Resources Department carried out a transformation project for job system (dual-path) in 2021, making improvement in positions, group/sequence division, job hierarchy, job mapping, etc., to strengthen the "foundation" of personnel development. The new job system now covers more than 1,000 management and professional staff, and will be completed by 2022.

Clearly defined personnel development path, so that each personnel can "do their best and achieve win-win development".

The traditional "single path" is more like "an army of thousands of men trying to cross a singlelog bridge", but the "dual path" has broadened the career development paths of employees.

1. Employees have a clear development path. They can engage in management or professional positions according to their own interests, characteristics, etc., while taking account the company's development needs; they also can determine their future development position and find the room according to their current ability.

2. Effectively manage performance goals: performance assessment and promotion are gradually linked. Performance goals are reasonably set according to the basic requirements of different sequences and different positions.

3. Gradually get the incentive in line with the value contribution, whether employees are a manager or a professional contributor, they can get the incentive in line with the value contribution.

# • Combining training and combat to help managers improve their management skills

In 2021, the company has launched a series of management cadres training courses such as "Outstanding", "Elite" and "Huangpu", and has built up a top-down management talent training system. Based on the leadership model of management cadres, the company carries out echelon development programs for grass-roots, middle and senior managers around four dimensions: role awareness, self-management, team management and business management. The program is designed to help management talents to carry out team management and business management scientifically, improving effectiveness through perfecting management,

By 2021, 219 management cadres have been trained.

Focus on key positions and improve professional abilities

In addition to using the digital empowerment platform to provide all-round empowerment for all

employees, the company also conducts job analysis for key positions in the business value chain, focus on key tasks, and open up key positions, as well as the upstream and downstream chains, so as to enhance the professional competitiveness of employees. By 2021, the average learning time of employees in key positions has registered more than 40 hours.



# • Reinventing performance management system to help employees achieve high performance and self-development

Based on differentiated management and development needs, in 2021, Narada Power reshaped its performance management system through changing business process and upgrading IT platform, aiming to improve the effectiveness and agility of performance management, so as to more effectively conduct directional guidance and value evaluation, promoting employees' development.

The new system provides a standardized and simple communication platform within the company, changing the previous practice of issuing orders with the top-down model when setting goals. It encourages managers and employees to set challenging performance goals to unleash their potential and making breakthroughs; guides both managers and employees to regularly communicate, counsel, evaluate and give feedback on their work behaviors and results, while making targeted performance improvements on problems and shortcomings encountered by employees, so as to help employees improve their personal abilities and focus on their development.









In implementing the new system, it has completed 24 performance-themed training sessions, covering 932 people throughout the year. It also carried out 172 performance coaching sessions in multiple ways, with the coaching topics covered processes, systems, tools and methods. At the same time, the new system pays more attention to the compatibility with other modules of HR and improves the current problems faced by employee development and value distribution through the linkage effect with job system and compensation system.

# Health & safety first

All along, Narada Power has been upholding the health and safety policy of "people-oriented, law-based, prevention-oriented, safe and harmonious", putting the health and safety of employees in the first place. According to the requirements of ISO45001 occupational health and safety management system, it has established and implemented various safety management systems, procedures and manuals in the fields of safety culture construction, production safety and work environment safety, etc., cultivating employees' safety awareness and making every effort to ensure the safety of employees and related parties.

# C Safety management of productio

By the end of 2021, a total of 8 factories have completed ISO45001 certification. The company seriously implements the requirements of production safety laws and regulations, holds monthly production safety discussion meetings, strengthens the implementation and decomposition of responsibilities, establishes EHS evaluation system, carries out special inspections, cross-inspections and supervisory inspections from multiple dimensions and levels, covers and tows all EHS work, and prevents and controls EHS risks. It also summarizes and exchanges safety management of key projects, compiles safety management guidebooks, absorbing excellent experiences and methods of safety production, and builds an exchange platform for sharing experiences.

# Capacity building of emergency response

The company adheres to the principle of "prevention first", carrying out and participating in fire-







fighting competitions and various emergency drills in addition to regular risk control. In the year of 2021, all factories organized 7 "Safe Production Month" activities and 17 emergency drills, which enhanced the awareness of all employees on disaster prevention and mitigation, and improved their emergency handling and evacuation ability in the face of sudden disasters and dangers.

### Safety culture construction

in order to personal safety in production and office, and to help employees build up safety awareness, Narada Power subsidiaries organized various forms of safety inspections, such as daily inspections, special inspections and holiday inspections, to supervise the rectification of hidden dangers and eliminate accident hazards. Besides, they also do a good job of daily maintenance and conservation of various equipment, conducting special safety training on firefighting, chemicals, occupational health and dangerous work. In the year of 2021, the factories identified and corrected a total of 7,764 hidden dangers and trained 14,571 employees.











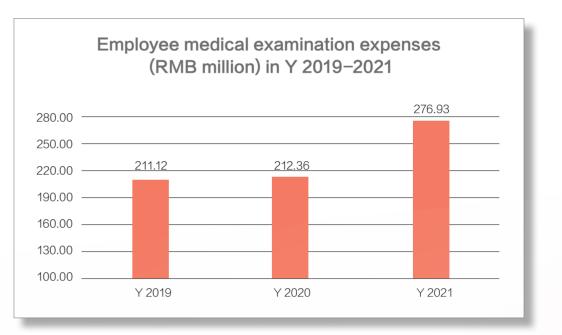
Safety consultation day activities



Self-checking for hidden hazards

### Occupational health monitoring

The company organizes annual physical examinations for employees working in the production line and marketing line, gynecological screening for female employees, and physical examinations for other employees once every two years. Besides, it also conducts immediate pre-employment physical examination and off-employment physical examination of production line employees while organizing occupational health physical examination in accordance with the "Technical Specification for Occupational Health Guardianship" (GBZ188-2014).



# Sustainable supply chain

Based on Narada Power's strategic planning and business development needs, the company formulates procurement strategies, establishes a perfect procurement management system, performs procurement management functions, so as to provide material supply guarantee for the company's production and operation, ensure the achievement of strategic and operational goals, and guarantee competitive advantages in the supply chain.

Narada Power continues to follow the industry's best practices, adopts internationally recognized standards, fully considers the concept of sustainable development in the entire process of supplier access, certification, selection, performance evaluation and management, routinizes assessment, and guides suppliers in continuous improvement.

It always believes that a sustainable supply chain includes not only products, but also issues such as environmental protection, health and safety, labor, and business ethics. The company integrates sustainable development into its procurement strategy and business processes, requiring suppliers to conduct business on the basis of compliance with the law and sustainable development, encouraging suppliers to make continuous improvements, and building a responsible, safe, economic, and sustainable supply system.

#### Promote CSR risk assessment and improvement of suppliers

Narada Power continuously improves and perfects the risk assessment system of suppliers' corporate social responsibility, and routinely carries out CSR risk rating for all production suppliers



in the qualified suppliers list. According to the nature and location of the enterprise, EHS system construction, material category, CSR risk level, CSR performance in the previous year and other indicators, the company is divided into three risk levels: high, medium and low, and the high and medium risk suppliers are included in the annual sustainable development audit plan. In 2021, the company rated 162 suppliers for CSR risk, and a total of 28 were rated as high- and medium-risk suppliers. It then conducted on-site audits on eight high-risk suppliers. For the problems found in the on-site audits, the suppliers are required to apply the PDCA method for continuous improvement until they meet the company's requirements.

#### Supply chain performance management

Narada Power carries out supplier sustainability performance assessment based on supplier sustainability performance, on-site audit results and their rectification, as part of the comprehensive supplier performance. According to the supplier assessment results, management is carried out in a graded manner, from management methods, audit frequency, evaluation means, and Supplier qualifications are managed differently. The company also links supplier sustainability performance with business and applies it in the stages of supplier selection, bidding and portfolio management. Suppliers with good CSR performance will be given a higher purchasing share and priority in business cooperation opportunities under the same conditions. For suppliers with poor performance, especially those who violate CSR red line requirements, it will reduce the procurement share or business cooperation opportunities, require a deadline for rectification, and may even cancel the cooperation relationship.

#### Dual carbon management in the supply chain

In 2021, Narada Power has carried out a greenhouse gas inventory of suppliers, requiring suppliers accounting for 70% of total lead power purchases to calculate carbon emissions, set carbon reduction targets, formulate emission reduction plans and implement emission reduction projects.

By the end of 2021, all the suppliers participating in the carbon emission inventory have completed the emission data statistics.

According to the statistics, the total carbon emissions of suppliers related to the company's

business register about 446,000 tons, and the reduction of carbon emissions through emission reduction projects records 68,000 tons, which accounts for 15.2% of the total annual emissions.

#### • Responsible mineral procurement management

Narada Power is committed and dedicated to promoting responsible procurement of products containing tin, tantalum, tungsten, gold, cobalt and other r raw materials. With reference to the OECD Due Diligence Guidance for Responsible Supply Chains and the China Due Diligence Guidance for Responsible Mineral Supply Chains, Narada Power participates in industry cooperation to jointly promote suppliers to prevent and reduce the risk of their products containing minerals that contribute, directly or indirectly, to human rights abuses, environmental hazards, health and safety hazards and corruption.

Based on the Responsible Minerals Initiative (RMI), Narada Power is working with global companies to address the issue of conflict minerals, using the RMI Conflict Minerals Questionnaire to conduct supply chain surveys to trace the source of minerals in its products through its suppliers, identify the list of smelters, and share the results with its customers. In 2021, the company conducted a mineral sourcing survey of 15 suppliers involved in the procurement of corresponding minerals, identified 11 compliant smelters, and shared the results of the conflict mineral survey with five major global communication equipment manufacturers.

## Public welfare

Narada Power always takes caring for the society and fulfilling social responsibility as an important work. We actively participate in social activities and various charitable causes, provide disaster relief, help the needy and promote education, and make positive contributions to the development of education and social undertakings.

Since its establishment, the company has been helping the cause of helping the disabled, and has arranged 43 people with disabilities to be employed, and paid a total of 273,600 yuan in employment guarantee fund for the disabled. The company was awarded the title of "Caring Enterprise for the Disabled".

Anhui Group of Narada Power continues to carry out education assistance activities to support and help employees' children to receive higher education and gain knowledge, laying the foundation for future career development, so that the fruits of enterprise development can benefit the majority of employees.

In 2021, Anhui Group, a subsidiary of Narada Power, carried out the "Golden Autumn Scholarship" activity, which sponsored more than 60 children of employees in difficulty, so that their children could enroll in school on time.







In July 2021, many places in Henan Province were hit by extreme heavy rainfall, and the disaster touched the hearts of people all over the country. Narada Power has been paying close attention to the current situation of people in Henan, starting the emergency plan at the first time, keeping close contact with the local operators at the fastest speed, raising emergency relief materials such as communication backup batteries, and putting them into the front-line relief and post-disaster reconstruction work at the first time.

At the beginning of the disaster, the company organized all the employees of Henan office to actively participate in the rescue activities and mobilize resources to help the relief and postdisaster reconstruction work. That is to ensure that the supply of materials and products in the disaster area is sufficient and continue to contribute to the post-disaster reconstruction in Henan.



Disaster relief supplies for Henan Province



Wuhan Production Center responded to the call of the Party Branch, contacted the Public Security Bureau of Gedian Development Zone and the traffic police brigade, and organized police force to visit employees' electric bicycles for licensing.

The registration of more than 500 bicycles was completed in two days, really doing something practical for the employees.

Wuhan Production Center also helped solve the problem of schooling for the children of employees in other places, and called for donations for employees who gave birth to twins; took the initiative to take care of the children of employees injured at work and transport them to and from school.





### **Table of terms**

Terms	
Company, the Company, Narada Power	Zhejiang Narada Po
CSR	Corporate-Social-F
Company Act	Company Law of the
Securities Law	Securities Law of the
ISO9001	Quality Managemer
ISO14001	Environmental Mana
OHSAS18001/ISO45001	Occupational Health
ISO50001	Energy Managemer
ISO14064-1	Greenhouse gases reporting greenhous
SA8000	Social Accountability
QC080000	Process Manager Devices and Produc
EICC	Electronic Industry (
RBA	Responsible Busine
RoHS order	The Restriction of the Electronic Equipment
1GWh=1000MWh=	Capacity units, giga hour; kilowatt-hour, hour
1GW=1000MW=1xI06kW	Power units: gigaw
Base stations	It is the core equip communication sign a coverage radius o
Greenhouse gases	The gases in the a strongly absorbing greenhouse gases HFCS, PFCS, SF6.
Carbon neutrality	This means that en of greenhouse gas period of time, and trees, saving energ dioxide emissions.

#### Description

Power Source Co., LTD

Responsibility

he People's Republic of China

he People's Republic of China

ent System

nagement System

th and Safety Management System

ent System

s - Part I: Specifications and guidelines for quantifying and use gas emissions and removals at the organizational level

ity Management Systems

ment System for Hazardous Substances in Electronic ucts

Code of Conduct

ness Alliance

the use of Certain Hazardous Substances in Electrical and ent

gawatt-hour, gigawatt-hour; megawatt-hour, megawattir, kilowatt-hour = kilovolt-ampere-hour, kilovolt-ampere-

watt; megawatt; kilowatt

pment of the network coverage system, providing mobile gnal transmitting, forwarding and receiving equipment, with of 1–35 km.

atmosphere that contribute to the greenhouse effect by ig long-wave radiation (heat) from the ground. The six as controlled in the Kyoto Protocol are CO2,CH4, N2O, b.

nterprises, groups or individuals measure the total amount s emissions generated directly or indirectly within a certain d offset their own carbon dioxide emissions by planting rgy and reducing emissions to achieve "zero" carbon

### GRI indicator index

Report contents	GRI Sustainable development reporting guidelines (G4) benchmarking		
About this Report	GRI102-45, GRI102-46, GRI102-49, GRI102-50, GRI102-51, GRI102-52, GRI102-53, GRI102-54		
Message from CEO	GRI102-14		
Managing Sustainable Development			
Company Profile	GRI102-1, GRI102-2, GRI102-3, GRI102-4, GRI102-5, GRI102-6, GRI102-7, GRI102-13, GRI102-18		
Strategy and Management of responsibility	GRI102-15		
Participation of interested parites	GRI102-40, GRI102-41, GRI102-42, GRI102-43, GRI102-44		
Business Ethics and commercial liability	GRI102-16, GRI102-17		

## Reliable and Dependable New Energy

Enormous achievements in scientific and technology innovation	GRI416-1, GRI417-1	
Deeply ploughing in the field of intelligent energy storage	GRI416-1, GRI417-1	
Ensure the security of communication and big data	GRI416-1, GRI417-1	
Green energy drives the future	GRI416-1, GRI417-1	
Recyclable industry chain	GRI416-1, GRI417-1	
For a Better Environment		
Green Sustainable Development	GRI307-1	

Green energy drives the future	GRI303-1, GRI303-2, GRI303-3, GRI303-4, GRI303-5
Green and Low Carbon Management	GRI305-1, GRI305-2, GRI305-4

Common development			
Caring for Employees	GRI102-8, GRI401-1, GRI401-2, GRI404-1, GRI404-2, GRI404-3, GRI405-1, GRI405-2, GRI406-1, GRI407-1, GRI408-1, GRI409-1		
Health and Safety First	GRI403-1, GRI403-3, GRI403-4, GRI403-5, GRI403-6, GRI403-10		
Sustainable Supply Chain	GRI102-9, GRI414-1, GRI414-2		
Public Welfare	GRI413-1		



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