

2024
Environmental, Social and Governance (ESG) Report

Poweroad Renewable Energy Co., Ltd.

Description of Report



Scope of Report

This report is the first sustainable development report released by POWEROAD Renewable Energy Co., Ltd. and its subsidiaries, with report information and data primarily covering the company's various ESG management and practical activities from January 1, 2024 to December 31, 2024. Based on the continuity and comparability of the report, partial data and information do not limit to the year



Preparation Principles

This report has been prepared with reference to the standard requirements such as the "Global Report Initiative (GRI) Standards", the International Organization for Standardization "ISO26000:2010 Enterprise Social Responsibility Guidelines", the United Nations Sustainable Development Goals (SDGs), the TCFD Climate-related Financial Information Disclosure Recommendations, and the Ministry of Finance's "Enterprise Sustainable Development Disclosure Norms-Basic Norms (Trial)".



Content Selection

In the selecting process of report content, the company followed the principles of materiality, completeness, and responsiveness of GRI standards, stated from the economic, social, and environmental aspects, and emphatically reported the company's responsibility bearing in areas such as organizational governance, product liability, environmental protection responsibility, caring for employees, and charitable activities. The data and information collection for this report follows the company's existing working process.

Explanation of References

In the report, POWEROAD Renewable Energy Co., Ltd. is referred to as the "company" or "POWEROAD Energy Storage" or "POWEROAD" or "we". This report is copyrighted by POWEROAD Renewable Energy Co., Ltd.



Release Method

This report is released once a year, available in both printing and online versions. It is written in both Chinese and English. The online version for the report in Chinese is available on our company's website www.poweroad-ess.com.cn, and the online version for the report in English is available on website www.poweroad.com. If there is any discrepancy in understanding between the two versions, the Chinese text shall prevail.

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Message from the Chairman



Dear partners, investors, colleagues, and friends from all sectors of society,

In today's surging wave of global energy transformation, POWEROAD has always been guided by "green, collaboration, and innovation", with the responsibility as its driving force, and has been forging ahead on the journey toward sustainable development. In 2024, we not only achieved significant results in technological breakthroughs and market expansion, but also took concrete actions to fulfill the commitments to the environment, the society, and the future. At this moment, I'd like to share with you the efforts and growth we've experienced over the past year.

Over the past year, POWEROAD has expanded its reach across mountains and seas, bringing clean energy to 72 countries and regions in total. From European cities with high electricity prices to power-starved towns in South Africa and oil fields in depopulated zones in northern Tibet, our energy storage products have become a beacon of light in the darkness, delivering stable, affordable, and green electricity to countless homes and industries. We are especially proud that our commercial and industrial storage products have reached the Mount Everest Base Camp at an altitude of 5,200 meters, creating the world's highest-altitude energy storage station to support scientific research. In the extreme cold of the Qiangtang depopulated zone and the sandstorm of Karamay deserts, our microgrid systems have demonstrated the strong capabilities of China's energy storage technology with a "zero-accident" reliable performance. These achievements are the result of hard work of every employee from POWEROAD, and a witness to our original aspiration of "bringing clean energy to the world".

Innovation is in the DNA of POWEROAD. Over the years, we have responded to the needs of the times with technological breakthroughs, and the power lithium batteries have been expanded to the fields of recreational vehicles, boats, microgrids, and more. In collaboration with recreational vehicle enterprises, we redefined the energy standards for high-quality living. In the commercial and



—— We understand that being green is not just a label for our products, but a fundamental principle for our development.

industrial storage field, we have delivered over 500 projects globally, ranging from tropical rainforest mining areas to Mayan civilization sites. The micro-grid energy storage systems help our clients achieve green transformation. We have jointly established an energy storage safety joint research center with the Institute of Building Fire Research of China Academy of Building Research, aiming for "zero accidents" and promoting the upgrading of industry safety standards. We are actively embracing the digital wave. Through ERP and MES systems, our Xiamen and Shanghang manufacturing bases have achieved full-process traceability, boosted the production efficiency by 30%, and reduced the operating costs by 20%, setting a benchmark for digital transformation among small and medium-sized enterprises in Xiamen.

We understand that being green is not just a label for our products, but a fundamental principle for our development. POWEROAD follows the ISO14001 environmental management system, building a green supply chain, continuously optimizing energy consumption, and reducing carbon emissions during operations. At the Xinjiang Oilfield, our solar-storage-diesel microgrid systems support green oil field extraction. At the Mayan ruins in Mexico, our energy storage systems enable the thousand-year-old civilization to coexist harmoniously with modern low-carbon technology. In Fujian, the charging station integrating photovoltaics, storage, charging and inspection provides a green travel path for electric vehicle owners. Every kilowatt-hour of clean electricity we generate is an earnest effort to achieve the "carbon peaking and carbon neutrality" goals.

Our employees are our most valuable asset. Through the ISO45001 Occupational Health and Safety Management System, we have created a safe and inclusive work environment for our employees. At the same time, we are deeply committed to supporting our community development, from power supply assistance of disaster areas to donating funds for education in remote regions, always using the strength of the enterprise to give back to society. In supply chain management, we are committed to responsible sourcing, ensuring that our upstream and downstream partners grow together with POWEROAD. Just as our values, "collaboration" is not just a business logic, but a belief of working together with all parties to make good turns.

Looking ahead, POWEROAD will anchor its "Domestic + Overseas" Dual-Drive Strategy to propel leapfrog development. We will continue to focus on improving the safety and performance of energy storage, exploring more extreme scenarios like the "Mount Everest Power Station", and making Chinese technology a cornerstone of the global energy transition.

Dear friends, the call of energy revolution has resounded throughout the world. POWEROAD is willing to join hands with all our partners, using innovation as the pen and responsibility as the ink to draw the future of clear waters and blue skies on the canvas of sustainable development!



Performance and Recognition

Women in middle and senior management positions made up all management staff

35%

The number of work-related fatalities and occupational disease cases from 2022 to 2024 was

The product's first-pass inspection rate in 2024 was

83%

By the end of 2024

The R&D investment ratio in 2024 was

(proportion of R&D investment to sales revenue)

The supplier integrity declaration signing rate in 2024

61.31%

The total annual training hours for employees in 2024

class hours per year

The supplier EHS audit rate in 2024

The number of product

occurred between 2022 and 2024 was

safety incidents

The number of ESG violations (child labor and forced labor) found among suppliers was





Honors and Recognition Received during 2022 to 2024

2024 Renewable Energy Emerging Enterprise Award

Most Innovative Enterprises in China's Energy Storage Industry in 2024

Outstanding Brand Award for Commercial and Industrial Energy Storage Systems

Specialized, High-End and Innovation-Driven "Little Giant" Enterprises recognized by the Ministry of **Industry and Information Technology**

National High-Tech Enterprise

Xiamen Leading Science and Technology "Little Giant" Enterprise





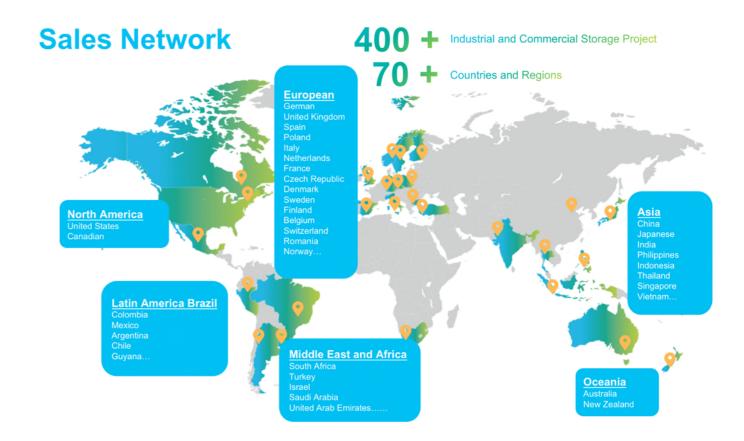
Overview of Company Development

POWEROAD Renewable Energy Co., Ltd. (referred to as "POWEROAD"), founded in 2001, is a national high-tech enterprise specializing in the development and application of lithium batteries and energy storage systems. The company's business covers nearly 70 countries and regions, and has established an operational system with Xiamen as the headquarters, covering five R&D centers in Xiamen, Shenzhen, Xi'an, Hangzhou and Hefei, having two manufacturing bases in Xiamen and Shanghang, and with two sales centers at home and abroad as its support. POWEROAD is actively establishing overseas subsidiaries and service centers. Through a well-established pre-sale, in-sale and after-sale service system, we provide meticulous service and heartfelt care to global users, offering them professional and satisfactory service experiences.

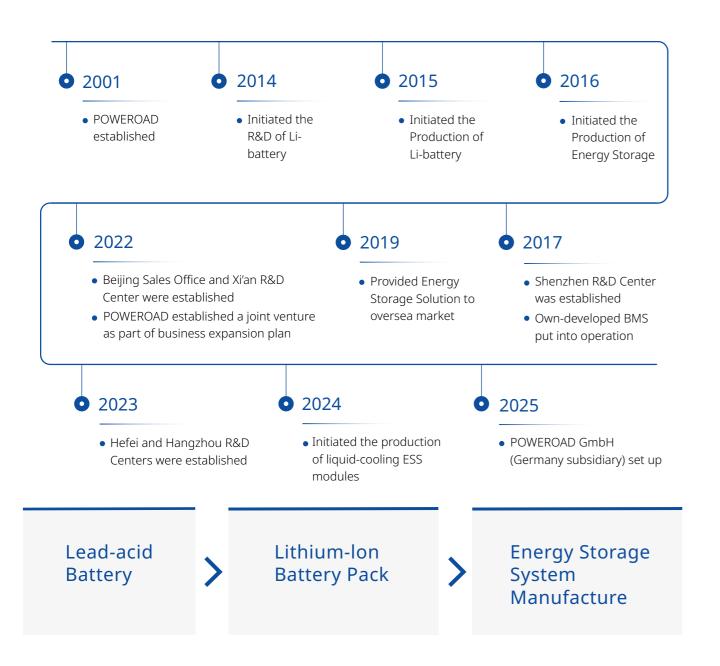


As an innovative enterprise that integrates R&D, design, production, sales, and service, POWEROAD has always adhered to independent R&D and technological innovation, and has obtained nearly a hundred invention patents. The company's energy storage products and solutions are widely recognized by customers both at home and abroad, and have the honor to get titles such as National "High-Tech Enterprise", National Ministry of Industry and Information Technology "Specialized, High-End and Innovation-Driven 'Little Giant' Enterprise", "Fujian Provincial Technology Little Giant Enterprise", "Fujian Provincial Specialized, High-End and Innovation-Driven Enterprise, "Xiamen Specialized, High-End and Innovation-Driven Small and Medium-sized Enterprise", and "Xiamen Leading Science and Technology 'Little Giant' Enterprise".

In 2022, POWEROAD cooperated with Fujian Longking Co., Ltd. (Shanghai A-share code: 600388) — a subsidiary of Zijin Mining (Hong Kong H-share code: 2899, Shanghai A-share code: 601899) — to jointly establish Kingroad ESS Technology Co., Ltd. This collaboration successfully integrated the upstream and downstream segments of the industry chain, bringing together top resources, comprehensively promoting efficient and intensive production, and taking the company's development to a new level. POWEROAD is rooted in China and serves the world, continuously promoting its service model innovation and product iterative upgrading, continuously creating safer and more reliable integrated new energy solutions, accelerating China's carbon peak and carbon neutrality goals, supporting global green energy development, and making energy better serve humanity.



Growth Journey of POWEROAD



Awards & Recognitions



Products and Services

POWEROAD has been deeply involved in the energy storage industry for 20 years, providing more convenient, reliable and intelligent solutions for the popularization of clean electricity based on advanced battery management, energy management technology, and system integration technology. The company currently offers a diverse range of products that are widely used in more than ten different application scenarios across the power generation side, the grid side, and the user side, including Frequency Regulation with CHP (Combined Heat and Power) and Energy Storage Integration, renewable energy grid integration, source-grid load storage, UHV (Ultra High Voltage) Receiving-End Energy Storage System, substation energy storage for peak shaving and frequency regulation, distribution transformer area energy storage, commercial and industrial energy storage, PV-Storage-Charging, microgrids, residential energy storage, etc.

The company is actively exploring digital solutions for renewable energy storage, developing the "POWEROAD Cloud" ESS Cloud Platform which has proprietary intellectual property rights, providing remote monitoring, system alerts, system full lifecycle management and other services for energy storage systems, enhancing the system stability, increasing the effective energy throughput, reducing the operation and maintenance costs, and ultimately improving customers' return on investment.



H-S51100

Low-voltage Stacking Battery

H-U51100

Low-voltage Racking Battery

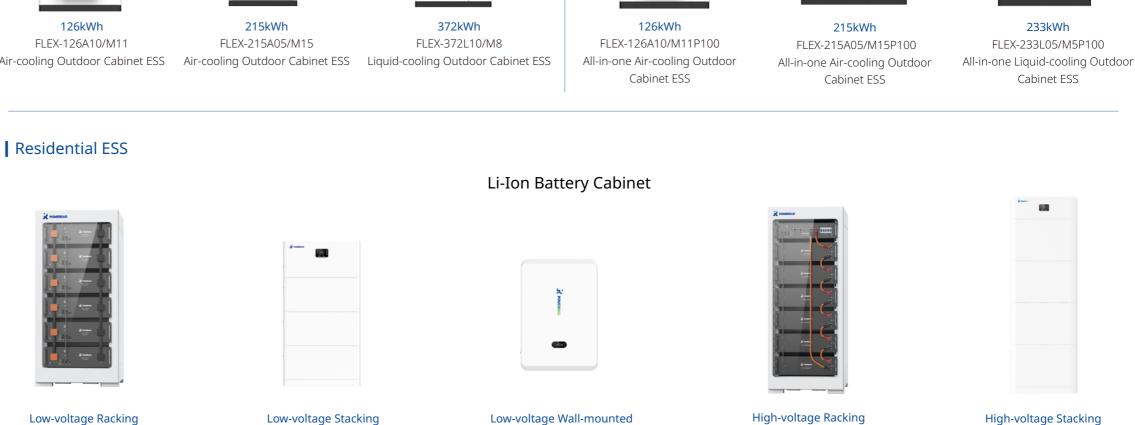


H-U10250HV

High-voltage Racking Battery

H-S10250HV

High-voltage Stacking Battery



H-W51100

Low-voltage Wall-mounted Battery

Product Application Scenarios













Business Strategy Analysis

- 1. Deep Accumulation: With over 20 years of deep ploughing in the lithium battery industry, we have established a stable
- 2. Technological Leadership: With five major R&D centers, we possess core and key technologies in the energy storage
- 3. Production Capacity Advantages: Two major intelligent manufacturing bases are established, covering energy storage systems with mainstream technology routes;
- 4. R&D Strength: We are backed by ample R&D funds and a team of skilled professionals;
- 5. Management Advantages: The core management team has over 10 years of experience in the cross-border business;
- 6. Talent Development: We have a comprehensive internal training system to continuously enhance our employees' professional skills.



- 1. Development Cycle: The product development cycle is relatively long, and the market response speed needs improvement:
- 2. Product Homogeneity: The hardware differentiation is not enough, and the value-added service system needs improvements;
- 3. Brand Building: The international influence of our own brands needs to be further strengthened;
- 4. Scenario Coverage: The application scenarios have not been sufficiently expanded, and the ability to provide custom-
- 5. Financial Support: The lack of supporting financing options affects the efficiency of the project implementation for
- 6. Market Distribution: The reliance on the European market is heavy, and the global market share needs more balanced development.



- 1. Industry Collaboration: Joint ventures with upstream listed companies perfect the industrial chain ecosystem;
- 2. Policy Empowerment: With a strategic focus on carbon neutrality, we continue to receive government policy support and
- 3. First-mover Advantage: The deployment of commercial and industrial energy storage systems in Europe is in the lead, with highlight brand recognition and excellent customer reputation:
- 4. Customer Base: We have superior partners and a stable client base in the energy storage industry;
- 5. Regional Bonus: Rooted in the renewable energy industry highland in Xiamen, we benefit from the growth opportunities of strategic emerging industries;
- 6. Market Opportunities: Seizing the opportunities presented by the "Belt and Road Initiative", we accelerate business expansion into emerging markets;
- 7. Technical Endorsement: The energy storage safety joint R&D center is jointly established to create the industry benchmark for safety technology.



- 1. Industry Competition: The domestic energy storage market is highly competitive, increasing the pressure to expand business
- 2. Cost Bottleneck: The initial investment threshold for commercial and industrial energy storage is high, which limits the pace of
- 3. Same-industry Competition: Leading companies are accelerating their localization deployment overseas, resulting in a loss of
- 4. Brand Barrier: It's difficult to enter the high-end market, and the brand's international influence still needs to be strengthened;
- 5. Policy Risk: Fluctuations in the international trade environment pose challenges to business continuity;
- 6. Price Pressure: Fluctuations in both raw material costs and exchange rates are putting strain on product pricing strategies;
- 7. Technological Substitution: Emerging technological routes like sodium batteries are diverting some of the customer demands.



Based on the above SWOT analysis, the company has formulated its future development strategy

Global Deployment Strategy

With the German company as the European operation center, the localized service team is built, and a regional warehousing network is built, such that the delivery period is shortened. Leveraging the radiation of mature European market to emerging "Belt and Road Initiative" markets, the regions with high demands for commercial and industrial energy storage are emphatically developed.

Industry Chain Integration Strategy

The upstream joint ventures and partnerships are deepened, flexible manufacturing is achieved through two major manufacturing bases, the mainstream technology routes are covered, a raw material price warning mechanism is established, and hedging is implemented to reduce fluctuations in procurement costs.

Technological Differentiation Strategy

The R&D investment is continuously increased each year, the thermal management and system integration technologies are researched and developed, and a pool of safety technology patents is built in collaboration with the Institute of Building Fire Research of China Academy of Building Research; and a modular software platform is developed to support remote iteration.

Brand Enhancement Strategy

The global benchmark project roadshows and multilingual ESG communications are launched, the "Energy Storage Expert Certification" training program is implemented, and it is planned to cultivate 100 certified distributors over the next three years to establish a technical authority image in the industry.

Service Innovation Strategy

The "Energy Storage + Finance" combined solution is launched, and the standardized solutions for high-value scenarios are defined; the agile response mechanism is established to shorten the customization cycle by 30%, and market expansion toolkits for distributors are provided.

Honors and Awards

Honorary Title	Award Year	Issuing Authority
China's Leading Commercial and Industrial Energy Storage Solutions in the Field of Energy Storage Industry	2024	CN-SOLARBE
Most Innovative Enterprises in China's Energy Storage Industry in 2024	2024	CN-SOLARBE
Best-in Effectiveness Growth Award	2024	LinkedIn
2024 Renewable Energy Emerging Enterprise Award	2024	The 16th China (Wuxi) International New Energy Exhibition
The Chairman of POWEROAD is selected as the national-level think tank experts in the field of building fire prevention industry	2024	Architectural Society of China, Institute of Building Fire Research of China Academy of Building Research
2024 Annual Energy Storage Industry Brand List – Annual Emerging Energy Storage Company	2024	International Energy Network, National Institute of Energy Research
Outstanding Brand Award for Commercial and Industrial Energy Storage Systems	2024	Storage Box
Top 100 Brands of New-Type Energy Storage in China	2024	Eastern Energy Storage Alliance (EESA)
2023 Annual Investment Value Enterprise	2023	Gaogong Consulting
2023 Annual Star Commercial and industrial Energy Storage System Integrator	2023	China Energy Storage Development Conference Organizing Committee
2023 Annual Best Emerging Enterprise Award	2023	The 10th China International PV-Storage-Charging Conference
2023 Annual Best Commercial and industrial Energy Storage Solution Award	2023	The 10th China International PV-Storage-Charging Conference
2023 Annual Top 100 New Energy Storage Brands in China	2023	Fujian Pioneers Alliance
China Innovation and Entrepreneurship Competition Excellence Award	2023	Fujian Innovation and Entrepreneurship Competition Organizing Committee
Fujian Provincial "Specialized, High-End and Innovation-Driven" Small and Medium-sized Enterprise	2022	Fujian Provincial Department of Industry and Information Technology
Specialized, High-End and Innovation-Driven "Little Giant" Enterprise	2022	Ministry of Industry and Information Technology
Xiamen Leading Science and Technology "Little Giant" Enterprise	2020	Xiamen Science and Technology Bureau
Xiamen Science and Technology Little Giant Enterprise	2019	Xiamen Science and Technology Bureau
Fujian Province Leading Science and Technology Little Giant Enterprise	2019	Fujian Provincial Department of Science and Technology
Xiamen Specialized, High-End and Innovation-Driven Small and Medium-sized Enterprise	2019/2022	Xiamen Municipal Bureau of Industry and Information Technology
(National) High-Tech Enterprise Certificate	2019/2022	Xiamen Science and Technology Bureau

Association Participation	Association identity	Date of Participation
China Energy Storage Alliance (CNESA)	Executive Member	2023
Eastern Energy Storage Alliance (EESA)	Executive Member	2023
European Association for Energy Storage Trade (EAEST)	Basic Member	2024







Organizational Governance, Supporting Sustainable Development

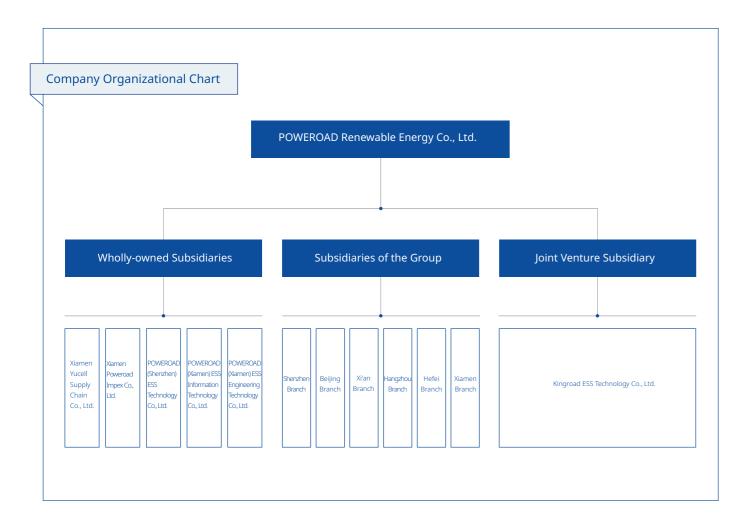
The company strictly abides by the laws and the highest standards of ethical conduct in all its business activities, thereby establishing a fair, equitable, and integrity-driven business environment, implementing enterprise risk management, and ensuring the company's stable operation and growth.





Organizational Governance Structure

Under the economic landscape of globalized development, business operating environments are facing unprecedented levels of complexity and uncertainty. Multiple factors such as intensified market fluctuations, accelerated technological advancements, and escalating geopolitical risks lead to a shrinking margin for errors in enterprise strategic decisions, and the stability of operational management is now under severe tests. Against this background, a robust governance structure is established, precise and efficient management mechanisms are implemented, and it has become the crucial factor for enterprises to maintain the development resilience and achieve sustainable growth in a dynamic competitive environment. Only through an institutionalized risk prevention and control system and a scientific decision-making process can enterprises gain the initiative in the ever-changing market environment and achieve sustainable growth.



The Chairman

The Chairman, as the company's top executive, is responsible for convening and hosting shareholder meetings and board sessions to ensure timely discussion and resolution of major enterprise decisions, and is responsible for organizing the formulation of the enterprise's business plans, investment plans, annual financial budgets and other major schemes. The Supervisors are responsible for overseeing the company's operations and financial management. If they discover any issues in their work, they shall promptly provide suggestions and feedback to the board of directors to protect the interests of the company and its shareholders, and to ensure that the company operates in a legal and compliant manner.

The General Manager

The General Manager is responsible for the company's overall operations and management, including R&D, production, quality control, marketing, procurement, finance, HR & administration, etc., and is responsible for formulating mid-to-long-term strategic objectives and driving their implementation in cooperation with the company's strategic policies. The Executive Office is responsible for the implementation and continuous improvement of the company's QHSE management system to ensure its ongoing suitability, adequacy, and effectiveness of the management system. Each department within the company performs its own duties and works closely together, providing strong support for both short-term operational stability and long-term value growth through a systematic governance structure.



Code of Business Ethics

As a responsible company, we have zero tolerance for any violations of business ethics. Integrity and honesty are essential parts of our company's core values. The company is always customer-oriented to actively foster a culture of integrity, and is committed to building an honest and ethical enterprise, establishing and improving anti-corruption control mechanisms and reporting channels, and preventing corruption risks through internal management measures.



The company has issued management policies such as the "Anti-Corruption and Anti-Bribery Procedures" and the "Employee Handbook", clearly outlining the code of conduct for employees. All employees have signed the "Anti-Bribery and Anti-Corruption Commitment", committing to abide by the company's relevant regulations on honest business operations. In addition, all of the company's business partners are required to sign the "Supplier Anti-Bribery and Anti-Corruption Commitment" to collectively uphold a faithful, honest and fair business environment.



The company has established audit and supervision mechanisms. Any violations of the code of business conduct will be dealt with seriously in accordance with laws and regulations. We conduct internal publicity to remind employees and ensure that the employees' behavior to conform to company standards.



The company regularly conducts employee integrity and honesty training to promote the deep integration of the culture of integrity. If any corrupt behavior is discovered, employees can report it through the reporting email, and the relevant responsible departments will conduct investigations, handling and accountability in accordance with the reporting process.

• From 2022 to 2024

Confirmed incidents of corruption or related reports Complaints or lawsuits resulting from commercial bribery Cases of violations of business ethics

Enterprise Risk Management

Risk management is the core safeguard mechanism for the company's sustainable development. By systematically identifying, assessing, and addressing strategic, operational, financial, and other multidimensional risks, the enterprise can strengthen its resilience against external shocks such as market fluctuations and policy changes, while also optimizing the resource allocation efficiency and reducing the company's compliance costs. Enterprise risk management not only helps prevent and control environmental and social risks to avoid major losses, but also improves decision-making quality and strengthens the trust of investors and interested parties. An effective enterprise risk management system transforms risks into strategic opportunities, enabling the enterprise to maintain their competitive edges in the face of changes and challenges and ultimately achieve the coordinated development of economic, environmental and social benefits.

Legal and Compliance Risk Management

The company has implemented contract management centered on "valuing contracts and maintaining trust". In accordance with the "Civil Code of the People's Republic of China" and other regulatory requirements, we have established a "Contract Management System" that clearly defines detailed requirements and approval authorities for the entire process of contract signing, review and approval, contract performance, modification and termination, dispute resolution, and contract management. Since 2020, the company has continuously retained The Universal Legal Corp. as our long-term legal advisor, leveraging their professional legal services to manage contract and compliance risks.

Operations and Financial Risk Management

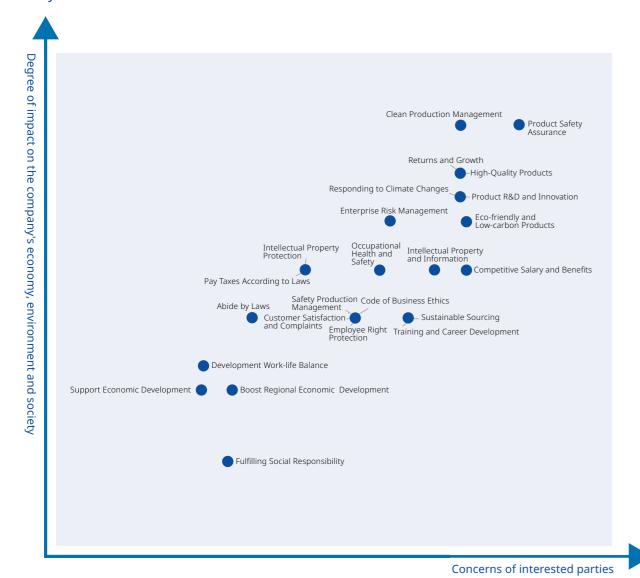
In 2023, the company signed a specialized service agreement with a professional accounting firm. The accounting firm conducts audits in accordance with the "Enterprise Accounting Standards" and issues professional adjustment opinions. It provides specialized training every six months, focusing on key areas such as financial regulations and internal control optimization. The professional auditing services have continuously enhanced the company's financial management level.



ESG Key Issues

To promptly obtain and respond to the demands of the interested parties, the company identified the requirements and expectations of the interested parties in accordance with the requirements of "ISO26000:2010 Guidelines for Enterprise Social Responsibility" and "GRI Sustainable Development Reporting Guidelines", and adopted the "matrix evaluation method" to evaluate the key issues that the interested parties were concerned about based on two dimensions - "the degree of impact on the company's economy, environment and society", and "the degree of impact on the interested parties". This year's sustainable development report is based on interested party surveys and key issue assessments. The company aims to achieve its strategic development goals by communicating with and involving the interested parties and responding to their demands and expectations.

ESG Key Issue Evaluation Matrix



Key Issue Statistical Table of Interested Party Communication and Concerns

Interested Parties	Concerned Issues	Communication Methods
Customers	 High-Quality Products Product Safety Assurance Customer Satisfaction and Complaints Product R&D and Innovation	Customer Satisfaction SurveyCustomer ComplaintCustomer Demands and Communication Meeting
Shareholders and Investors	Returns and GrowthEnterprise Risk ManagementIntellectual Property and InformationSafety Production Management	Financial Report ReleaseShareholder Communication MeetingInternal MeetingShareholder Communication Meeting
Suppliers and Contractors	Code of Business EthicsIntellectual Property ProtectionSustainable Sourcing	Supplier MeetingReport DisclosureSupplier Communication
Employees	 Competitive Salary and Benefits Employee Right Protection Occupational Health and Safety Training and Career Development Work-life Balance 	 Employee Satisfaction Survey Internal Meeting Safety Management System Internal Meeting Employee Satisfaction Survey
Environment	Clean Production ManagementResponding to Climate ChangesEco-friendly and Low-carbon Products	Government CommunicationReport DisclosureCustomer Communication
Government and Regulatory Authorities	 Abide by Laws Pay Taxes According to Laws Support Economic Development	Government Meeting SeminarOn-site Visit and Communication
Community and NGO	Boost Regional Economic Development Fulfilling Social Responsibility	Regular Information Disclosure Visit



R&D Innovation Mechanism

POWEROAD has been deeply involved in the battery industry for over 20 years. With the industry-leading lithium battery energy storage battery management system (BMS), energy management system (EMS) and independently-developed "POWEROAD Cloud" ESS Cloud Platform, it can be widely applied in various scenarios such as renewable energy power generation, EV charging piles, industrial parks, etc., providing a safer, more convenient, more reliable and more intelligent solution for the popularization of clean electricity.

POWEROAD has consistently positioned technological innovation as the core driving force behind advancing the global energy transition. From 2022 to 2024, the company consistently invested in R&D at an annual growth rate of over 8% of its total sales revenue. Five R&D centers were established in Xiamen, Shenzhen, Xi'an, Hangzhou and Hefei. More than 100 patent authorizations were obtained, forming a technology system with independent intellectual property rights. By the end of 2024, the company's energy storage solutions had been successfully implemented in over 400 projects worldwide, with a cumulative deployment scale of over 1 GWh, promoting the transformation of the energy structure with the innovative capabilities. With outstanding innovation and industrial achievements, the company has been recognized with • From 2022 to 2024,

Cumulative R&D to Sales Rate

R&D centers

deployment scale

1GWh+

A cumulative

The company's energy storage solutions had been implemented in worldwide

400+



several prestigious honors, including "National High-Tech Enterprise", "National "Specialized, High-End and Innovation-Driven 'Little Giant' Enterprise", "Fujian Provincial Leading Science and Technology Little Giant Enterprise", and "Most Innovative Enterprises in China's Energy Storage Industry in 2024".

2022-2024 Technological Innovation and R&D Performance Data Table

Indicators	2022	2023	2024
R&D Investment ratio (%)	5.4	7.6	10.2
R&D Personnel (persons)	82	115	142
Granted Patent Data (items)	13	21	33
Patent Application Data (items)	11	44	50
Number of Software Copyright Applications (items)	7	40	44
Software Copyright Authorization (items)	7	37	39
Percentage of Revenue from New Product Sales (%)	22.95	24.09	28.17

Experienced R&D Team

POWEROAD consistently views talents and technologies as the core assets for sustainable development. The company has a professional R&D team of about 150 persons, forming an experienced technical team that covers the entire industry chain, including lithium battery cells, power battery systems, and energy storage systems. The R&D personnel has an average industry experience exceeding 10 years, including pioneers who were among the first in China to develop long-life lithium iron phosphate (LFP) energy storage cells, EV battery systems, and commercial energy storage cloud platforms. These experts form a robust talent base to fuel the company's technological innovation.



The R&D personnel is conducting product performance testing

R&D Management System

POWEROAD has established a systematic and standardized R&D management system, continuously enhancing the innovation efficiency through institutional development and digital upgrades. The company has established an R&D quality management system that covers the entire product lifecycle, and formulated and implemented over ten policies and procedures such as the "Design and Development Control Program" and the "New Product Pilot Production Management Measures". From the key links such as project initiation, development process, risk control (FMEA), technology output to product traceability, the standardized management of product R&D has been achieved, the controllability of the R&D process and the traceability of the results are ensured, and a solid management foundation is provided for technological innovation.

To continuously optimize our R&D management system, the company will focus on driving digital transformation in 2025 by introducing the IPD (Integrated Product Development) project management model and the PLM (Product Lifecycle Management) system to achieve three major improvements: First, the cross-regional R&D collaboration is strengthened, making cooperation among our five R&D centers more efficient; second, the process control is improved, and the digital means is used for refined management throughout the entire R&D process; and third, the quality and reliability are enhanced, and a full lifecycle quality tracking system from requirement analysis to product delisting is established. These measures will drive the company's technological innovation and R&D management to develop toward the more intelligent and more efficient direction.



Shenzhen R&D Cent

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Core Product Technology

Since entering the renewable energy storage sector in 2016, the company has achieved comprehensive breakthroughs in four key technology areas: the high-precision battery management system (BMS) achieves accurate battery control, the energy management system (EMS) establishes the smart energy management, the ESS Cloud Platform initiates a new digital operation and maintenance model, and the advanced system integration technology breaks through the entire chain of innovation from components to systems.

High-precision Battery Management System (BMS)

The POWEROAD Battery Management System (BMS) integrates battery data collection, balancing management, insulation monitoring, energy metering, system self-check, thermal management, data processing and other functions into one solution. It supports mainstream communication methods and protocols, adopts a multi-level architecture, and can be flexibly adapted to energy storage systems of various sizes. The BMS has been widely deployed in commercial and industrial energy storage systems, ensuring safe and reliable system operation.

Energy Management System (EMS)

The POWEROAD Energy Management System (EMS) uses intelligent analysis to conduct intelligent energy management on distributed power sources, energy storage systems, photovoltaic systems, wind power systems, collection systems, and load systems, achieving the matching of resources and demands. It can provide early warnings and interventions for safety risks, conduct energy planning, energy efficiency analysis, consumption analysis, equipment and microgrid system management, enables maintenance personnel to better understand the status of the system and reduces overall operating costs. This also provides conditions for further mining, analysis, processing and handling of energy data.

ESS Cloud Platform

The "POWEROAD Cloud" ESS Cloud Platform integrates visual maintenance, refined management, and big data analysis. After the energy storage system is connected into the power grid, it enables real-time data collection, big data analysis, and battery health prediction and alerts. With the "POWEROAD Cloud" ESS Cloud Platform, batteries can be monitored, operated, and maintained globally. Additionally, extensive data researches help optimize BMS design, improve configuration, perfect operational strategies, reduce operating and maintenance costs, and create greater economic benefits for customers.



Advanced System Integration Technology

The system integration technology independently developed by POWEROAD achieves the highest levels of reliability, consistency, and safety in battery pack assembly, structural and electrical integration, and safety functionality, thereby ensuring that battery system products are more stable, more reliable, safer, and longer in service life.

Product Safety R&D Center

The POWEROAD places an extreme emphasis on product safety. On the basis of providing high-level safety configurations for the products, the "quantity" of safety measures are continuously increased. In August 2024, the company partnered with the National Fire Protection Research Institute - the Institute of Building Fire Research of China Academy of Building Research to jointly establish the Joint R&D Center for Energy Storage Safety, carry out university-industry cooperation in aspects such as project R&D, empirical testing, and market promotion, jointly tackle key issues, and promote the innovation and improvement of energy storage safety technologies.



With the National Fire Protection Research Institute - the Institute of Building Fire Research of China Academy of Building Research to jointly establish the Joint R&D Center for Energy Storage Safety

Outstanding Case: Air-Cooled Outdoor Energy Storage System

The company has launched an air-cooled outdoor cabinet energy storage system suitable for commercial and industrial applications based on the application scenarios such as overseas farms, small processing plants, and small charging stations, as well as customer demands. The product specification is 100 kW-215 kWh, the overall dimensions are 1200x1000x221 mm, the weight is 2 tons, and it supports fast high-power charging and discharging scheduling and supports on-grid and off-grid operations. The core features of the product include a temperature control design, a built-in dedicated fire protection system for energy storage batteries, and a system protection rating of IP55. It can meet environmental conditions ranging from -20°C to 45°C, adopts refined air ducts to achieve precise air supply and modular fan stepless speed regulation, achieves uniform temperature throughout the entire machine, and extends the service life of the batteries. This system supports connection into a cloud visualization platform, enabling comprehensive monitoring and digital operation of the system.

The POWEROAD provides customers with diverse and reliable energy storage products. By the end of 2024, the company has delivered over 400 commercial and industrial energy storage projects worldwide. Their products have been deployed in extreme environments such as the Mount Everest Base Camp at an altitude of 5,200 meters, the Tibet Qiangtang depopulated zone with the lowest temperature reaching minus 40°C, the Guyana mining area near the equator with a relative humidity of 100% during the rainy season, and Indonesian islands with high-temperatures and high salt-spray environment. There have been zero safety incidents in the global application of commercial and industrial energy storage products, demonstrating outstanding safety performance and product quality.





Relying on two major manufacturing bases including the Xiamen Manufacturing Base and the Shanghang Manufacturing Base, the POWEROAD established a digital smart manufacturing system, leading the industry's transformation and upgrading. In the future, the company will continue to deepen the application of new technologies such as artificial intelligence and big data, driving energy storage manufacturing toward smarter and greener development, and injecting new momentum into the upgrading of the renewable energy industry.

Boosting Production Efficiency

The Xiamen Manufacturing Base has achieved efficient production of air-cooled energy storage products through automated production lines, and relying on an automation rate of 95%, the Shanghang Manufacturing Base has made significant breakthroughs in process optimization and production efficiency for its liquid-cooled battery production line. Through the in-depth application of smart systems such as ERP and MES at both major bases, a full-process traceability system from raw materials to finished products has been established, improving the production stability by 30%, reducing the operating costs by 20%, and setting a new benchmark for smart manufacturing.





Automated production and monitoring of the production line are achieved

Enhancing Quality Control

The automated inspection equipment achieves 100% product testing coverage, while the MES system ensures precise traceability for every single product. The digital means transforms traditional "post-production inspection" into "process prevention", significantly reducing product defect rates. The intelligent algorithms continuously optimize process parameters, driving the product quality toward the goal of "zero defects". In 2024, POWEROAD became the first to establish a "Digital Factory" benchmark project and was selected as an outstanding example of digital transformation in Xiamen.



In September 2024, the Shanghang Manufacturing Base began the first phase of production with 2GWh, as part of its total 6GWh annual capacity

Achieving Production Visualization

The company has achieved full-process visual control through real-time data monitoring, intelligent analysis, and predictive maintenance. The upcoming PLM system will integrate all data throughout the product's life cycle, forming a closed-loop management from R&D to service.

Product Quality Management

POWEROAD has always regarded quality as the lifeline of its development, adhered to the principles of "compliance with regulations, scientific management, process control, and meticulous craftsmanship", and established a quality management system in line with the ISO9001:2015 international standard. The company develops comprehensive quality management objectives based on its product strategy, which are implemented throughout each link of the design, R&D, supplier management, production process, product testing, and customer service, forming a complete set of quality management standards. Since obtaining the ISO9001 certification in 2016, the company has robustly



operated the system for eight years. Through rigorous annual internal audits and management reviews, we have continually optimized our quality controls to ensure that our products and services consistently exceed customer expectations.

From 2022 to 2024

The finished product shipment first-time inspection pass

100%

The pass rate for the first piece inspection

99.54% → 99.80% ⋪

The product safety incident

The customer return

0

The effective operation of the quality management system has brought multiple benefits to the company. In terms of operation, the PDCA cycle has enabled lean improvements in production processes, boosting the operational efficiency. In terms of products, strict process control ensures the reliability and safety of our energy storage products. In terms of market presence, international certification qualifications enhance the credibility of the brand and provide strong support for expanding the global market. According to statistics, from 2022 to 2024, the product safety incident was zero, the customer return was zero, the finished product shipment first-time inspection pass rate was 100%, and the pass rate for the first piece inspection was increased from 99.54% to 99.80%, demonstrating that the company's product quality control has been continuously improving.

2022-2024 Product Quality Performance Data

Data	2022	2023	2024
Customer Return Rate (%)	0	0	0
Number of Product Safety Incidents (times)	0	0	0
Final Product Shipment First-Inspection Pass Rate (%)	100%	100%	100%
Incoming Material Inspection Pass Rate (%)	95.83%	95.53%	94.29%
First Piece Inspection Pass Rate (%)	99.54%	99.70%	99.80%

₩

APQP Quality Control

The company adheres to the principle of striving for excellence in production and manufacturing. It has introduced the APQP (Production Part Approval Process) product quality planning procedure, initiating early quality planning during the R&D stage of the project. Through a series of control processes such as quality control of R&D, materials, processes, and final products, it strictly controls each link to provide high-quality standard products, as well as OEM and ODM customized products and solutions for customers.

Quality Knowledge Training

Quality training is a key link for the company to improve product quality. The company regularly provides employees with quality knowledge training, with the training content covering quality awareness cultivation, interpretation of quality standards, production testing skills, quality case analysis, etc., to constantly enhance the professional skills of employees and the awareness of full participation, and to ensure the stability and reliability of product and service quality.



The company organizes quality knowledge training for employees



IE Improvements and Incentives

To promote IE improvements and management innovation and encourage employees to actively participate in product design and development, production process improvements, equipment and tooling upgrades, management process optimization, etc., the company has established and published the "CIP Promotion Management Guidelines". Based on the benefits generated from improvement proposals proposed by employees, the company provides employees with varying amounts of financial rewards as well as recognition for outstanding individuals or teams.



Quality Inspection and Monitoring

The company has established a comprehensive product inspection system and is equipped with advanced professional equipment for weather resistance testing, battery performance testing, and safety compliance checks. A full-process quality monitoring system for incoming material inspection, production process, finished product testing, etc. is established. Through standardized testing methods, precise instruments and equipment, and scientific analysis techniques, the company can accurately obtain key performance indicators of samples and rigorously verify the accuracy and reliability of test results, providing solid experimental data support for product quality.

Laboratory test and monitoring indicators

Weather resistance test

High temperature test, low temperature test, temperature and humidity cycling test, drop test, high temperature and high humidity test (85°C/85% RH), insertion and withdrawal force test, puncture test, vertical electromagnetic vibration test, automotive transport vibration test, salt spray test, heat deformation test, tensile test;

Battery performance test

Cell capacity test, cell low-temperature discharge capacity test, cell high-temperature discharge capacity test, rate discharge test, DC internal resistance test, pulse discharge test, cycle life test;

Testing and analysis

Temperature rise test, lithium battery protection board test, short circuit test, LCR digital bridge test, hardware parameter test, material test;

Safety compliance testing

Insulation test, withstand voltage test, leakage current test; cell capacity grading test, tensile test, intelligent safety compliance combined analysis test, salt spray test, DOE validation;

Incoming material inspection

Salt spray test, air tightness test, CCS test, battery cell capacity test, etc.;

Production process testing

Blue film appearance CCD inspection, cell OCV online test, post-welding CCD inspection, module single-pack insulation withstand voltage test, module single-pack total voltage and internal resistance test, complete unit insulation withstand voltage test, charge-discharge EOL test, complete unit air tightness test, aging test, etc.;



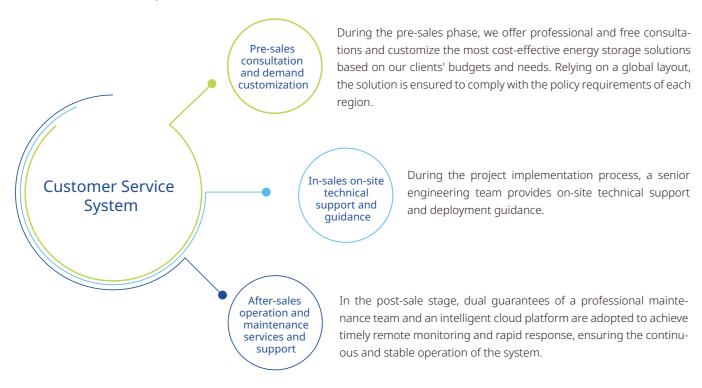


Product Laboratory Test

Improving Customer Satisfaction

Customer Service System

POWEROAD has established a customer service system that runs through the entire project lifecycle, providing customers with full-process technical support and turnkey services from project exploration, preliminary design, solution provision, EPC, operation and maintenance, etc. This "consultation-customization-deployment-operation and maintenance" full-process service system reflects POWEROAD's service concept with customer value as the core.



Customer Complaint Handling Mechanism

The company has established a closed-loop customer complaint management system, centered on the core principles of "rapid response, systematic resolution, and continuous improvement", and established a systematic management system from the issue acceptance to the root cause improvement. After receiving customer feedback, the after-sales team will collect and register the issue information within 24 hours. The quality and R&D departments will provide a temporary solution within 12 hours, and the management level escalation mechanism will be activated for major issues. After determining the handling plan, cross-departmental collaboration is carried out through service orders to correct and improve the situation. The company has also established a problem-tracing system, extending individual case improvements to comprehensive optimization of products and processes, and truly achieving the quality improvement goal of "enhancing an entire product category by addressing a single complaint".



Customer Satisfaction Survey

To fully understand customer needs, the company conducts customer satisfaction surveys every year through questionnaire methods, with the survey contents covering sales performance, delivery services, product quality, price competitiveness, handling of customer complaints, contribution to the customer brand, etc. The data is analyzed from customer satisfaction surveys to identify the current state of customer satisfaction, existing issues and their causes, and then improvement measures are developed and implemented.

Indicators	2022	2023	2024
Customer Satisfaction (%)	80%	80%	86%

Based on the results of the 2024 customer satisfaction survey analysis, the company will implement the following improvement measures:

Measure 1

By securing supplier partnerships through framework agreements, we effectively mitigate supply chain price fluctuation risks; and at the same time, leveraging the MES system, the smart upgrades in production are achieved, manufacturing costs are continuously optimized, and our products' market competitiveness is enhanced.

Measure 2

By increasing investment in R&D, we improved the R&D mechanism oriented by market demand, opened up a fast channel from product planning to technology R&D to market application, and continuously enhanced the transformation efficiency of R&D achievements.

Measure 3

The company will conduct product lifecycle carbon footprint assessments and verifications, regularly publish ESG reports to disclose management performance, and provide customers with verifiable sustainable development commit-





Low Carbon and Environmental Protection, Protecting the Future of the Earth

The company takes environmental protection as the cornerstone of sustainable development. We have established a systematic environmental management system based on international standards and implemented clean production management during our operations. We actively respond to climate changes and develop and produce efficient energy storage products for our clients, contributing to the global achievement of carbon neutrality.







Green Energy Storage Solutions

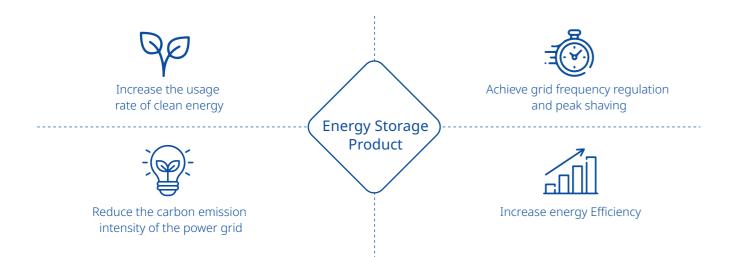
As a key hub in the energy transformation, energy storage products play an irreplaceable role in promoting global carbon neutrality. By efficiently storing renewable intermittent electrical energy, the energy storage system significantly enhances the utilization rate of clean energy sources such as wind and solar power, effectively solving the problem of integrating renewable energy into the grid. The intelligent energy storage solution possesses key functions such as grid frequency regulation, peak shaving and valley filling, as well as reducing fluctuations in wind and solar power. While improving the stability of the grid, it also significantly reduces the carbon emission intensity of the grid.

In the industrial sector, energy storage products help high-energy-consuming enterprises reduce energy consumption per unit of output by optimizing the electricity usage structure and improving energy efficiency. At the same time, the establishment of distributed energy storage networks also promotes the process of energy autonomy, enabling electricity users in industrial parks and production bases to transform from mere energy consumers to new types of energy suppliers integrating generation, storage and utilization. According to forecasts by the International Energy Agency, by 2030, the deployment of energy storage products worldwide is expected to reduce annual carbon dioxide emissions by about 1 billion tons, providing a crucial industrialization path for achieving the global carbon neutrality goal.



By 2030

The deployment of energy storage products worldwide is expected to reduce annual carbon dioxide emissions by about 1 billion tons, providing a crucial industrialization path for achieving the global carbon neutrality goal.



Energy Storage Application Scenarios

Application scenarios for renewable energy grid integration

Clean energy sources such as solar and wind power are intermittent, volatile, and difficult to predict. When integrated into the grid on a large scale, they increase the pressure on grid peak regulation and frequency regulation, posing significant challenges to the safe operation of the power grid. The company's energy storage products effectively address these challenges by absorbing surplus solar and wind energy, solving the problem of waste of electricity and light, and enhancing the smoothness and stability of the integration of renewable energy sources, thereby increasing the utilization rate of clean energy.



Application scenarios for multi-energy complementary energy storage

With the continuous development of renewable energy technologies, the proportion of renewable energy sources such as hydropower, solar energy and wind energy has been increasing, changing the previous pattern of relying on traditional fossil energy. However, the large-scale use of renewable energy has also brought challenges to grid safety. The multi-energy complementary energy storage solution provided by the company can optimize resource allocation,



promote the high-level consumption and utilization of renewable energy, and create good economic and social benefits.

Application scenario for source-grid-load-storage

"Integrated Source-Grid-Load-Storage" is a new power operation model that integrates" power generation, power grid, load, and energy storage". Through various interaction forms such as source-source complementation, source-grid coordination, grid-load interaction, grid-storage interaction, and source-load interaction, it effectively resolves the system fluctuations caused by the increase in the proportion of new energy power generation in the power system, enhances the capacity for



absorbing new energy power generation, improves the safe operation of the power grid, and builds a future-oriented "source-grid-load-storage" integrated and interactive new power system.

C&I energy storage products play a key role in the energy transition. They help optimize electricity costs and reduce power expenses for businesses. Additionally, they ensure the reliability of power supply, and are used as a backup power source to guarantee the uninterrupted operation of critical loads. The most important thing is to promote the consumption of renewable energy, smooth out the volatility of photovoltaic/wind power, and significantly increase the utilization rate of green electricity.



POWEROAD energy storage products are taken as an example, with the 92% cycle efficiency and millisecond-level response capability, a single project can reduce carbon emissions by thousands of tons annually, helping commercial and industrial enterprises achieve their strategic goals of "economy, safety, and low carbon".

Application scenarios for PV-Storage-Charging

The integrated PV-Storage-Charging system uses a coordinated model of "photovoltaic power generation + energy storage buffering + smart charging" to achieve efficient use of clean energy. Photovoltaic panels convert solar energy into electricity, which is first used to power the charging piles. Any surplus electricity is stored in the energy storage system. At night or on cloudy days, the energy storage device releases electrical energy to continue supplying power.



The PV-Storage-Charging system can reduce electricity costs, protect grid safety, and enable truly zero-carbon charging. Each 120kW PV-Storage-Charging pile can cut carbon emissions by about 50 tons of CO2-e per year.

Application scenarios for residential energy storage

Under the circumstances of soaring energy prices and the rapid development of distributed energy supply, more and more households are tapping into the potential of their houses and installing household energy storage systems using lithium batteries. Renewable energy sources such as solar and wind power generators in an electrical energy storage system are stored, the proportion of self-generation and self-consumption is increased, and electricity costs are reduced. In the event of major disasters or other emergencies, it can also serve as an emergency backup power source, thereby enhancing the reliability of household power supply.

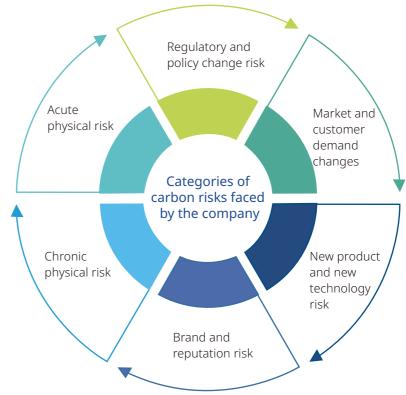


Responding Climate Changes

The Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) highlights that as severe heat waves, heavy rainfall, and other extreme weather events and disasters occur more frequently, the negative impacts and risks caused by climate changes are becoming increasingly significant, and climate changes have already had widespread and profound effects on the environment, society, and the economy. To achieve the goal set by the "Paris Agreement" to "limit the global average temperature rise to below 2°C, and strive to keep it within 1.5°C", the issues of global climate changes and the green low-carbon economy have become important focuses of the international community. In September 2020, the Chinese government officially proposed the strategic goal of "achieving carbon peak by 2030 and carbon neutrality by 2060", promoting a comprehensive green transformation, orderly and safely reducing carbon, and strengthening responsibility implementation.

Identification of Carbon Risks and Opportunities

In the context of carbon neutrality, the battery energy storage industry will encounter transformational risks, physical risks, as well as opportunities brought about by the energy transformation in the short term, medium term and long term. Climate risks arise from policies, laws, technologies, market changes, as well as acute and chronic physical risks brought about by climate changes; opportunities may come from expanding, developing or emerging markets, or from the company's contribution to sustainable development, including new products, services, customers and markets, reputation benefits, supply chain security, process improvement, and innovation.



Risk and Opportunity Identification and Response

Key Risk Assessment Results and Response Strategies for Climate Changes

Risk category	Project category	Possibility	Financial impact	Risk level	Priority score	Short-term, medium-term, long-term	Company response strategy
Transition Risk	The EU Battery Regulations impose limits and requirements on the carbon footprint of products, thereby increasing the operational costs for companies and the entire value chain	Basically confirmed	High	Level 1	12	Short /Medium / Long	 Carry out product carbon footprint assessments to understand the benchmark data for the carbon footprints of different products; Based on the results of carbon footprint assessment, provide carbon knowledge training for suppliers to raise awareness of carbon risk management; Encourage suppliers to develop carbon neutrality strategies and carbon reduction plans, and promote the suppliers to increase the proportion of clean energy usage; Regularly review and track the carbon footprint performance of products, continuously reduce carbon emissions, and benchmark against the requirements of the EU Battery Regulation.
Transition Risk	The EU Battery Regulation's requirements for due diligence management in product supply chains increase operating costs for companies and their suppliers	Basically confirmed	High	Level 1	12	Short /Medium / Long	5) Establish a sustainable sourcing mechanism and a supplier due diligence management system in accordance with EU battery regulations; 6) Conduct ESG audits and assessments for suppliers, provide ESG knowledge training, and enhance suppliers' awareness of ESG risks and management capabilities; 7) Engage an EU-accredited third-party organization to conduct a due diligence management system audit and obtain a declaration of conformity; 8) Regularly review and monitor suppliers' ESG management performance to ensure the ongoing effectiveness of their due diligence systems.
Transition Risk	The requirements of EU Battery Regulation for the proportion of recycled cobalt, nickel, lithium, and lead in products will increase operating costs for the company and the value chain	Basically confirmed	High	Level 1	8	Short /Medium / Long	9) Conduct data surveys and assessments of recycled materials from cobalt, nickel, lithium, and lead raw material suppliers, and develop an implementation plan for using recycled materials; 10) Engage in technical exchanges and communication with raw material suppliers, and when necessary, carry out technology R&D and innovation to increase the proportion of recycled materials used; 11) Engage a third party to verify the proportion of recycled materials and obtain a compliance statement.
Transition Risk	Governments and regulatory agencies require enterprises to save energy, reduce carbon emissions, and disclose carbon information. Non-compliance can expose companies to regulatory risks	Basically confirmed	Medium	Level 1	8	Short/ Medium	12) Carry out carbon inventory work for emission sources of benchmark-year enterprise and supply chain scope 1, 2, and 3; 13) Based on the carbon inventory results, formulate carbon neutrality strategies, goals and action routes; 14) Take annual carbon reduction actions to advance the achievement of carbon neutrality goals, and disclose information each year through TCFD reports until carbon neutrality is achieved.
Transition Risk	China's "14th Five-Year Plan" requires companies to reduce their carbon emissions per unit of product each year from 2021 to 2025. Failure to comply could expose companies to regulatory and brand risks, as well as higher compliance costs	Basically confirmed	Medium	Level 1	8	Short/ Medium	15) Carry out carbon inventory work for emission sources of benchmark-year enterprise and supply chain scope 1, 2, and 3; 16) Based on the carbon inventory results, set targets and action plans to reduce carbon emission intensity; 17) Develop a clean energy procurement plan and increase financial investments in carbon reduction to ensure sufficient financial resources.

Key Risk Assessment Results and Response Strategies for Climate Changes

Risk category	Project category	Possibility	Financial impact	Risk level	Priority score	Short-term, medium-term, long-term	Company response strategy
Transition Risk	The development of low-carbon technologies and products, along with the transition to and adoption of low-emission technologies by the company, will lead to increased costs and reduced enterprise profit margins	Most likely	Medium	Level 2	6	Medium /Long	18) The company has allocated R&D funds for the R&D of low-carbon products and low-carbon technologies; 19) Improve the production efficiency through efficiency enhancement and optimization projects such as clean production and lean manufacturing.
Transition Risk	Changes in customer and consumer behaviors require companies to produce low-carbon and zero-carbon products, increasing both the company's direct and indirect operating costs	Most likely	Medium	Level 2	6	Medium /Long	20) Purchase and use clean energy every year, gradually increase the proportion of clean energy used, and reduce carbon emissions during operations;21) Encourage key suppliers to use clean energy in their production processes to reduce the carbon emissions implied in raw materials;22) Set carbon neutrality targets for products, and regularly review and track the performance of product carbon reduction efforts.
Transition Risk	The Chinese government has made an international commitment to the "3060" carbon peaking and carbon neutrality strategy. If the company fails to achieve its "carbon peaking and carbon neutrality" goals, it could face compliance risks and reputational damage	Possible	Medium	Level 2	6	Medium /Long	23) Carry out carbon inventory work for emission sources of benchmark-year enterprise and supply chain scope 1, 2, and 3 to establish benchmark-year data; 24) Develop the company's carbon reduction targets and action plans in response to the "3060" carbon peaking and carbon neutrality strategy; 25) Purchase and use clean energy, increase the proportion of clean energy used, implement energy-saving measures, and reduce Scope 1 and 2 carbon emissions.
Physical Risk	Climate changes have led to an increase in the frequency of severe weather events such as typhoons and floods, causing disruptions to company operations and asset losses	Most likely	Low /Medium /High	Level 2	12	Short /Medium / Long	 Strengthen company operational risk management; develop contingency plans for severe weather; Purchase and equip emergency supplies, conduct regular emergency drills, and enhance the company's emergency response capabilities; Develop a diversified supply chain to enhance the business continuity of value chain operations and the ability to manage risks.
Physical Risk	Climate changes have led to prolonged summer heat and high temperatures, affecting the company's normal operations and increasing its operating costs	Basically confirmed	Medium	Level 1	8	Short /Medium / Long	4) Purchase and install high-efficiency, energy-saving refrigeration equipment; 5) Assign professionals to regularly maintain and service the refrigeration equipment to ensure its stable operation.
Opportunity	The battery industry is a crucial product for achieving global carbon neutrality. With the vigorous market demand for new energy products, the company's product sales and market demands will be increased significantly, thereby boosting the company's revenue.	Basically confirmed	High	Level 1	6	Short /Medium / Long	1) Increase investment in R&D of new products, and develop and produce battery products that meet customer needs; 2) Establish new product sales channels and expand market sales volume; 3) Actively respond to the requirements of the EU Battery Regulations and produce high-quality battery products that comply with the EU Battery Regulations.

Organizational Carbon Emission Accounting

The company conducted an inventory of the carbon emission data at the organizational level for the year 2024 in accordance with the ISO14064:2018 standards. Based on the accounting results, the carbon emission volume of the company's purchased electricity in 2024 was 649.18 TCO2e per year, and the scope 3 emissions were 113229.06 TCO2e per year. Among them, more than 80% of the carbon emissions were caused by the purchased raw materials. To ensure the accuracy of the carbon emission figures, the company entrusted a third-party verification agency to conduct a verification of the carbon emission data for the year 2024, and obtained a carbon emission verification statement issued by the third party.

Company Scope 1, 2 & 3 Carbon Emission Data Table

Environmental indicator	2024
Electricity Consumption (kWh/year)	1527659.12
Scope 1 Emissions (TCO2e/year)	5.14
Scope 2 Emissions (TCO2e/year)	649.18
Scope 3 Emissions (TCO2e/year)	113229.06



ISO 14064 Third-Party Carbon Verification Statement



Product Carbon Footprint Assessment

To actively respond to the EU Battery Regulations and the low-carbon requirements of domestic and international customers, to understand the carbon emission situations of different processes during the product production cycle, and to seek opportunities for carbon reduction in the development of low-carbon products and supply chain management, the company initiated a product carbon footprint assessment in 2025. Based on ISO14067:2018 "Guidelines for the Evaluation of Greenhouse Gas Emissions during the Life Cycle of Products and Services", 11 energy storage products were selected for carbon footprint assessment and comparison, in order to promote the formulation and implementation of product carbon reduction strategies and provide a scientific basis for launching carbon-neutral products. To ensure the accuracy of the carbon emission figures, the company entrusted a third-party verification agency to conduct a verification of the carbon emission data for the year 2024, and obtained a carbon footprint verification statement issued by the third party.

As a responsible manufacturer, POWEROAD has incorporated climate change response into its sustainable development strategy. By promoting energy conservation and emission reduction, formulating carbon neutrality strategies and reduction targets, the company is achieving green transformation and low-carbon development, providing customers with low-carbon solutions. Based on its own business characteristics and future development plans, the company has developed carbon neutrality strategies and emission reduction measures. With 2024 as the base year, the company aims to achieve Scope 1 & 2 carbon neutrality by 2030, and achieve the Scope 3 value chain carbon neutrality by 2050.



ISO14067 Product Carbon Footprint Verification Statement-For One Product

POWEROAD formulate carbon neutrality strategies

With 2024 as the base year, the company aims to achieve Scope 1 & 2 carbon neutrality by 2030, and achieve the Scope 3 value chain carbon neutrality by 2050.

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Environmental Management System

Prevention at the source

Tackle problems early, plan ahead, and start with planning;

Energy conservation and consumption reduction

Saving is honorable, and wasting is shameful. Processes are optimized, and the optimal energy consumption ratio is pursued while maximizing the utilization of resources;

Strengthened supervision

Without supervision, there are no results. Supervision exists to help achieve goals more effectively;

Continuous improvement

There's no best, only

Adhering to the green development concept, the company actively promotes the harmonious development of products, environment and society. Centering on the management policies of "prevention at the source, energy conservation and consumption reduction, strengthened supervision, and continuous improvement", the company has established a systematic environmental management system based on the ISO14001 standard. By conducting the identification of environmental factors and formulating quantified environmental goals and environmental management procedures, the company has achieved continuous improvement in environmental performance. During the system operation period in 2024, the company strictly complied with national and local environmental



ISO14001 Environmental Management System Certification Certificate

protection regulations. All management systems were effectively implemented, environmental pollutants were discharged 100% in compliance with standards, and excellent environmental management performance has been achieved. In 2024, the company received ISO14001 Environmental Management System Certification Certificate.

Environmental Responsibilities and Management Processes

The company has established a dedicated environmental management department with clearly defined responsibilities and authorities. Perfect environmental management procedures have been developed, covering key links such as risk identification, monitoring, assessment, and reporting. This ensures that environmental management not only complies with regulatory requirements but also meets the company's internal standards.

Environmental Performance Monitoring and Evaluation

The company has established a systematic environmental monitoring and assessment mechanism, regularly reviewing and evaluating its environmental management efforts. By combining internal and external audits, the operation status of the system was verified. Any identified problems were promptly rectified to ensure the continuous and effective operation of the system.

Environmental Training and Communication Feedback

The company has established a dedicated environmental management department with clearly defined responsibilities and authorities. Perfect environmental management procedures have been developed, covering key links such as risk identification, monitoring, assessment, and reporting. This ensures that environmental management not only complies with regulatory requirements but also meets the company's internal standards.



The company has organized employees to participate

2022-2024 Environmental and Ecological Efficiency Statistical Table

Environmental indicator	2022	2023	2024
Environmental Protection Expenditures (10,000 yuan/year)	2.92	10.85	8.47
Water Consumption (tons/year)	1555	3735	7651.7
Wastewater Emissions (tons/year)	1399.5	3361.5	6886.5
Total Electricity Consumption (MWh/year)	585.77	1205.57	1527.66
Electricity Recovery Efficiency (%)	14.25%	13.56%	18.86%
Industrial Solid Waste Emissions (tons/year)	/	/	4.89
Hazardous Waste Emissions (tons/year)	0	0	0.43
Waste Reuse Rate (%)	/	/	96%

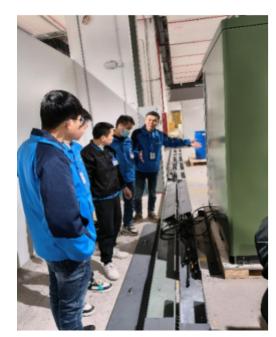
Clean Production Management

During the production and operation process, the company actively promotes green and low-carbon technologies. By optimizing processes, enhancing equipment efficiency, controlling pollutant emissions, and strengthening waste recycling and utilization, it achieves the environmental protection goals of **Zero Accidents** and **Zero Pollution**.



Promote 7S Standardized Management

To improve environmental conditions, quality management, and operational efficiency, the company has systematically implemented 7S standard management since 2022. We have developed the "7S Management Guidelines" and established a 7S (Safety, Health, and Environment) team to oversee the implementation. Through multi-dimensional publicity, incentives and assessment & evaluation of the mechanism, we ensure the implementation of 7S management. After more than two years of continuous improvement, 7S management has delivered significant results, boosting operational efficiency and the management levels in terms of environmental protection and safety.





The company actively implements 7S management



Energy Conservation Management

The company systematically advances energy management through three key measures: raising awareness, promoting green office practices, and upgrading and transforming equipment. The company regularly conducts special training on energy conservation, embedding the concept of energy conservation into its enterprise culture; it fully implements electronic office operations and intelligent electricity management, conducts equipment energy efficiency evaluations, and gradually replaces high-energy-consuming equipment with efficient motors, energy-saving lamps, etc., to reduce energy consumption levels.



Environmental Pollutant Control

The company implements clean production management for all types of pollutants, combining hardware investment with soft management to reduce the negative impact of production and operation activities on the environment.

- 1) The company implements source control of domestic sewage and raises employees' awareness of water conservation through regular education and training.
- 2) A full-process system of "system facilities ledger disposal" has been established for the management of hazardous waste, and storage sites are strictly built in accordance with the "three prevention" standards, achieving closed-loop management from generation to disposal.
- 3) A "filter cotton + activated carbon" combined process is adopted for the exhaust gas treatment. Through regular inspections and replacements, it ensures 100% compliance with emission standards.
- 4) The low-noise equipment is adopted for noise control, mechanized and automated processes, soundproofing and noise reduction, and regular monitoring measures are taken to help keep workers away from high-noise areas and prevent noise-related hazards.



Production exhaust gas treatment device

05

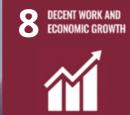


The company adheres to a diversified and non-discriminatory human resources policy, legally safeguards the rights and interests of employees, provides a healthy and safe working environment, creates a stage for employees to showcase their talents, and enables the common growth of employees and the company.









Human Resource Policy

We firmly believe that a diverse and inclusive talent ecosystem is the source of vitality for the innovation and development of enterprises. The company adheres to the employment philosophy of "openness, fairness, and compatibility", and establishes a diversified talent system that encompasses people of different races, ethnicities, genders, ages, religious beliefs, and educational backgrounds. In the entire cycle management of talent selection, cultivation, utilization and retention, we adhere to the principle of equal opportunities, and provide a stage for every employee to showcase their talents. At the same time, we uphold the bottom line of business ethics with a zero-tolerance attitude, strictly prohibiting child labor and forced labor, prohibiting any form of discrimination, harassment and violent behavior, legally protecting the legitimate rights and interests of employees, and striving to create a safe, healthy, respectful and inclusive working environment, so that every employee can obtain dignity and development here.

As of 2024

The company has employees

426 17

Ethnic minorities

Women managers at the middle level and above account

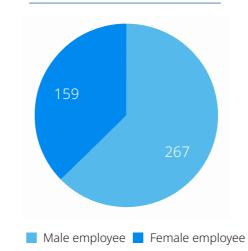
35%

 An outstanding human resource team provides a guarantee and support for the sustainable development of the company.

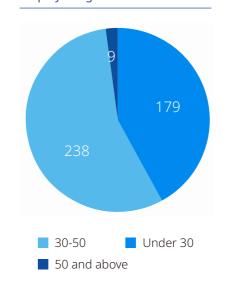


Human Resource Performance Data

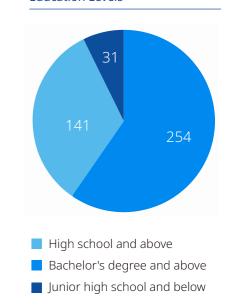




Employee Age Ratio



Proportion of Employees by **Education Levels**





Total Number of Employees Number of Employees from Ethnic Minorities

Percentage of Female Managers at Mid-Level and Above Among All Management Staff (%)

35%

Protecting Employee Rights

In compliance with national regulations and international conventions, the company has formulated a number of measures to protect the rights and interests of its employees, ensuring that every employee can receive fair treatment and equal development opportunities.

Anti-Discrimination Policy

We strictly prohibit any form of discrimination, harassment, or retaliation. Our company has established an "Anti-Discrimination Administrative Measures", in all aspects such as recruitment, salary, and promotion, only the educational level, professional qualifications and work ability are used as evaluation criteria. It is strictly prohibited to influence decisions based on factors unrelated to work, such as gender, age, marital status, and religious belief. Through institutional construction, it is ensured that every employee can receive equal treatment.

Anti-Child Labor and Forced Labor

The company regards business ethics and morality as the bottom line for compliance. It has a zero-tolerance policy towards the use of child labor and forced labor. It strictly enforces employment standards and enhances compliance awareness through regular training and compliance checks, thereby avoiding the risk of human rights violations.

Employee Rights Protection System

The company has legally established labor unions and party organizations to address and prioritize employees' reasonable demands, ensuring their full participation rights in corporate governance. To build a harmonious labor relationship, various activities such as cultural and sports events and selection of outstanding employees are carried out to enhance employees' sense of belonging; and when employees encounter difficulties, we also actively offer assistance to help them overcome the difficulties, ensuring that every employee enjoys the right to speak and a sense of belonging.

Complaint and Feedback Mechanism

The company strictly adheres to labor regulations, encourages multi-channel communication between employees and management, and supports workers in safeguarding their rights through legal channels. When employees encounter unfair treatment or issues, they can first communicate with their direct supervisors or the HR department. If the problem remains unresolved, they may follow the company's grievance procedure to escalate the matter to higher management. The relevant department will conduct a fair investigation and handling of the complaints; employees can also file complaints with the labor security administrative department, or apply for labor dispute mediation and arbitration, or file a lawsuit in court.

Salaries and Benefits

The company upholds a "people-oriented" management philosophy and has established an industry-competitive salary and benefit system. Through continuous optimization of management policies and processes, we not only offer social insurance and various statutory holidays in accordance with national regulations, but also provide a range of welfare programs such as commercial insurance, annual physical examinations, and year-end bonuses. This not only provides a solid guarantee for the employees' lives, but also helps the company attract and retain more outstanding talents.

The company strictly complies with labor regulations to ensure employees enjoy fundamental benefits such as five social insurance and one housing fund, and paid leave. To address employees' needs at different life stages, the company has established specific leave policies for occasions like weddings, funerals, childbirth, and childcare, reflecting its commitment to supporting work-life balance. To further enhance employee happiness, the company has also established humanistic care benefits, ranging from condolences for illness and injury to congratulatory gifts for new births, and from cultural and sports activities to holiday benefits. Through comprehensive welfare provision, employees can share the fruits of the company's development. This "basic guarantees + distinctive care" welfare model enhances the cohesion of the enterprise and provides a lasting impetus for the company's sustainable development.



2022-2024 Human Resource Performance Data

Human resource indicator data	2022	2023	2024
Ratio of Average Employee Salary to Local Minimum Wage	4.9: 1	6.0: 1	6.5: 1
Annual Employee Turnover Rate (%)	15%	28%	17%
Employee Satisfaction (%)	100%	100%	100%
Average Employee Salary Growth Rate (%)	0.00%	0.73%	11.95%
Coverage Rate of "Five Social Insurance and One Housing Fund" (%)	100%	100%	100%
Male-to-Female Same-Position Salary Ratio	1:1	1:1	1:1
Labor Contract Signing Rate (%)	100%	100%	100%

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Occupational Health and Safety

66

Advocate people-oriented values, care for employee health, pursue harmonious and sustainable development, and demonstrate social responsibility

"

The company places great importance on the safety and health of its employees and has established and implemented a comprehensive occupational health and safety management system in accordance with the international standard ISO45001:2018. We have established a safety management department, carried out hazard source identification and hidden danger investigation, conducted regular safety inspections and maintenance of the workplace, provided employees with necessary safety equipment and protective gear, offered safety knowledge and emergency handling training, and prevented safety accidents and occupational hazards during work. In 2024, the company successfully passed the ISO45001 occupational health



ISO45001 Occupational Health and Safety Management System Certification Certificate

and safety management system certification. From 2022 to 2024, the company reported no work-related fatalities or occupational disease cases.

2022-2024 Occupational Safety Data Statistics Table

Occupational Health and Safety Data	2022	2023	2024
Total Investment in Safety and Health (10,000 yuan)	6.93	9.14	15.99
Number of Work-related Deaths (persons/year)	0	0	0
Number of Occupational Disease Cases (persons/year)	0	0	0
Accident Incidence Rate (cases/year)	0	0	0
Safety Training Hours for Manufacturing Employees (class hours/year)	407	525	1506

Safety Management Structure

The company has established a safety management system in accordance with the ISO45001 standard, set up an EHS (Environment Health Safety) management department, and appointed dedicated safety management personnel responsible for the daily management of safety, health, and fire protection. This ensures the comprehensive implementation of safety production responsibilities.

Risk Identification and Control

The company has established a hazard source identification and assessment management procedure, regularly organizing all departments to conduct hazard source analysis and risk level assessments. Based on the assessment results, targeted control measures are developed. At the same time, the company has regularly carried out the full-process management and tracking of hazard source identification, rectification and closure, ensuring the closed-loop hazard governance.

Safety Awareness and Training

To enhance employees' safety awareness, the company complies with regulatory requirements and formulates a safety training plan every year, conducting regular training sessions on safety knowledge. A three-level safety education program is carried out for new employees, namely "company-level, workshop-level, and team-level", enhancing their safety awareness and emergency response capabilities.

Emergency Response and Drills

In response to possible emergencies, the company has formulated a fire accident emergency plan. Through regular drills and reviews of the emergency plan, the company continuously enhances the emergency handling capabilities of its employees.





The company conducts a fire dril

Training and Career Development

The company places great importance on employees' professional education and skill development. Focusing on its core business, it assesses the needs of each position and creates annual talent development plans. The company invests funds and efforts in providing various knowledge training and continuing education for employees, building a learning-oriented and development-oriented organization, offering a platform for employees to enhance themselves and grow, retaining outstanding talents through incentive mechanisms, and achieving common growth with its employees. According to statistics, the company offered 142 types of training courses in 2024, with the per capita training hours of 16.65 class hours/person/year. The talent cultivation system not only meets the current business needs, but also reserves human capital for future development, forming a virtuous interaction mechanism between employee growth and enterprise development.

2022-2024 Employee Training Performance Statistics Table

Indicator Data	2022	2023	2024
Total Annual Employee Training Hours (hours/year)	2079.54	6914.24	7094.64
Number of Training Course Types (types/year)	44	101	142
Average Training Hours Per Employee (hours/person/year)	7.85	18.59	16.65
Employee Performance Evaluation Coverage Rate	100%	100%	100%





The company offers various training programs on professional knowledge to its employees

Employee's Happy Life

Employees are the company's most valuable asset. The company attaches great importance to the leisure and cultural life of its employees. Through various cultural activities, it enhances the sense of belonging and happiness among employees, and consolidates the cohesion of the team.



OWEROAD Employee Birthday Party



Kingroad ESS employees celebrate the Mid-Autumn Fest



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Shenzhen R&D Center Outdoor Team-Building Eve



Employees Participate in the Traditional Chinese Mid-Autumn Festival Dice Game



Win-Win Cooperation, Promoting Community Development

We actively practice responsible sourcing and promote sustainable development throughout our product value chain; and the company is dedicated to supporting vulnerable groups, giving back to society with compassion, collaborating with diverse sectors, and driving harmonious community development.





Sustainable Sourcing

To effectively manage supply chain risks, the company sets compliance with laws and business ethics as the baseline during the process of supplier admission, assessment and performance evaluation. We select partners that meet ESG standards and monitor suppliers' environmental protection, safety management, and ethical business practices, and promotes balanced industry development through responsible sourcing.

Supplier Code of Conduct: The company has established a "Supplier Code of Conduct", requiring suppliers to commit to upholding business ethics and social responsibility, prohibiting the use of child labor and forced labor, and respecting the fundamental human rights of employees. In terms of environmental protection, suppliers must commit to complying with environmental laws and regulations, take effective measures to reduce pollutant emissions, and are encouraged to implement environmental protection measures such as energy conservation and emission reduction, and circular economy. In terms of safety, the suppliers are required to ensure that the production process complies with safety production laws and regulations, provide a safe working environment, and establish effective emergency plans to deal with possible safety risks.

By 2024

The supplier integrity commitment signing rat

61.31%

Supplier Admission System

The company has established supplier admission standards, including but not limited to qualifications, financial status, technical capabilities, and environmental certifications. Suppliers are categorized into different risk levels based on their importance and risk profiles, and a supplier database is maintained to enable differentiated management.

The supplier EHS (Environment Health Safety) audit rate

83%

ESG Assessment and Rectification

Regular on-site assessments of suppliers are conducted during procurement to evaluate whether their production capacity, management level, employee rights, environmental protection, etc. comply with the requirements of the code of conduct. For the issues identified during the inspection, the suppliers are required to make rectifications within the specified time. After the rectification is completed, re-inspections are conducted to ensure that the issues have been properly resolved.

Negative cases of using child labor or forced labor



Supplier Performance Evaluation

The company has established a supplier ESG evaluation system, including multiple -dimensional evaluation contents such as quality, delivery time, costs, services, and sustainable development, set evaluation criteria and weightings, and established quantitative assessments. Based on the evaluation results, corresponding handling measures will be taken for the suppliers, including rewards, guidance, rectification or elimination.



Suppliers are prohibited from employing child labor or forced labor. Suppliers should respect employees' working hours, wages, benefits and collective bargaining rights.

Environmental protection

Suppliers must comply with national and local environmental protection regulations. Suppliers should take measures to reduce the discharge ofwastewater, waste gas, and solid waste.

Suppliers'production facilities should cimply with safety standards. Suppliers should have an effective occupational health and safety management system.

2022-2024 Sustainable Procurement Performance Data

Procurement Indicators	2022	2023	2024
Supplier Integrity Commitment Signing Rate (%)	7.63%	13.88%	61.31%
Supplier EHS Audit Rate (%)	70%	80%	83%
Number of Times That Suppliers Were Found to Violate ESG (Child Labor and Forced Labor)	0	0	0
Percentage of Suppliers Selected Based on EHS Standards (%)	70%	80%	83%

Sustainable Procurement Planning

To build a fair and healthy supply chain system and ensure the sustainable development of the value chain, the company will take the following actions in the future:

Short-term plan (1-2 years)

The company will set up a dedicated sustainable procurement team, develop sustainable procurement policies and quidelines, provide necessary resources, offer ESG knowledge training for procurement staff, and establish incentive mechanisms to ensure the achievement of sustainable procurement strategic goals. In addition, the company will also establish systematic supplier ESG evaluation standards to screen, monitor, and assess their ESG performance, and will pilot the procurement of environmentally friendly materials and energy-saving, low-carbon products.



Mid-term plan (3-5 years)

Long-term partnerships will be established with suppliers, a supplier ESG database will be built and improved, green procurement will be expanded to cover major purchasing categories, and sustainable procurement projects will be jointly promoted.



Long-term plan (over 5 years)

The corporate governance structure will be optimized, industry-leading sustainable procurement standards and evaluation systems will be established, innovative procurement models will be promoted, and a green, low-carbon, and harmonious supply chain will be jointly created with suppliers. The company will also regularly publish sustainable procurement white papers to share its experiences and achievements.

Charitable and Public Welfare Activities

The company adheres to the enterprise spirit of giving back to society, actively organizing its employees to participate in various public welfare and charity activities, offering love and warmth to the society, and using its practical actions to interpret the company's social responsibility and commitment.

Donate to the Charity Summer Camp

We care for our own children and extend that care to others, actively fulfilling our enterprise social responsibility to spread love and happiness to more children. This year's summer camp program was funded by the company to help the children have a fulfilling and meaningful summer vacation, to stimulate their interests and potential, and to provide them with a happy and wonderful holiday experience.





Care for the "Tender Saplings": POWEROAD donates to the Public Welfare Summer Camp

Express Condolences to Employees Affected by Disasters

In June 2024, some employees' families suffered property losses due to flooding. The company promptly offered support, expressing care for employees affected by the disaster by distributing relief funds, food, and other essentials, and bringing warmth and comfort to those in need.



Donate to the Fire Department

In May 2024, Shanghang was hit by severe flooding. The local fire rescue team responded promptly and made tremendous efforts in the disaster relief operations. After learning that the company was short of rescue supplies, it promptly responded to the rescue call and donated energy storage mobile power supply products worth 30,000 yuan, demonstrating its support for the local fire rescue efforts through its actions.





Donate to Improve the Learning Environment for Children in Mountainous Areas

In 2019, the company donated materials and funds to help children in a certain primary school in the mountainous area of Ningxia improve their learning and living conditions. This donation actions demonstrated the enterprises' commitment to social responsibility and their emphasis on the education sector. At the same time, it also called on more social forces to pay attention to and support the education and living issues of children in mountainous areas.

As a responsible enterprise, driven by the sustainable development strategy, we will continue to take fulfilling social responsibilities as our mission, helping more disadvantaged groups, passing on love, and collaborating with all sectors of society to create a better future together.





Sustainable Development Performance Data Table

Category	Performance Indicator	2022	2023	2024
	Scope 1 Emissions (TCO2e/year)	/	/	5.14
	Scope 2 Emissions (TCO2e/year)	/	/	649.18
	Scope 3 Emissions (TCO2e/year)	/	/	113229.06
	Environmental Protection Expenditures (10,000 yuan/year)	2.92	10.85	8.47
Environment	Water Consumption (tons/year)	1555	3735	7651.7
	Wastewater Emissions (tons/year)	1399.5	3361.5	6886.5
	Total Electricity Consumption (kWh/year)	585768	1205569.7	1527659.12
	Electricity Recovery Efficiency (%)		13.56%	18.86%
	Industrial Solid Waste Emissions (tons/year)	/	/	4.89
	Hazardous Waste Emissions (tons/year)	0	0	0.43
	Waste Reuse Rate (%)	/	/	96%



ategory	Performance Indicator	2022	2023	2024
-	R&D Investment ratio (%)	5.4	7.6	10.2
	R&D Personnel (persons)	82	115	142
	Granted Patent Data (items)	13	21	33
	Patent Application Data (items)	11	44	50
-	Number of Software Copyright Applications (items)	7	40	44
-	Software Copyright Authorization (items)	7	37	39
-	Percentage of Revenue from New Product Sales (%)	22.95	24.09	28.17
-	Customer Return Rate (%)	0	0	0
-	Number of Product Safety Incidents (times)	0	0	0
-	Final Product Shipment First-Inspection Pass Rate (%)	100%	100%	100%
-	Incoming Material Inspection Pass Rate (%)	95.83%	95.53%	94.29%
-	First Piece Inspection Pass Rate (%)	99.54%	99.70%	99.80%
Society -	Customer Satisfaction (%)	80%	80%	86%
-		/	/	426
-	Total Number of Employees Percentage of Female Managers at Mid-Level and Above Among All Management Staff (V)			35%
	Percentage of Female Managers at Mid-Level and Above Among All Management Staff (%)	4.9: 1	6.0: 1	6.5: 1
-	Ratio of Average Employee Salary to Local Minimum Wage			
-	Annual Wastage Rate (%)	15%	28%	17%
-	Employee Satisfaction (%)	100%	100%	100%
-	Average Employee Salary Growth Rate (%)	0.00%	0.73%	11.95%
-	Coverage Rate of "Five Social Insurance and One Housing Fund" (%)		100%	100%
-	Male-to-Female Same-Position Salary Ratio	1: 1	1: 1	1: 1
-	Labor Contract Signing Rate (%)	100%	100%	100%
-	Total Investment in Safety and Health (10,000 yuan)	6.93	9.14	15.99
-	Number of Work-related Deaths (persons/year)	0	0	0
-	Number of Occupational Disease Cases (persons/year)	0	0	0
-	Accident Incidence Rate (cases/year)	0	0	0
-	Safety Training Hours for Manufacturing Employees (class hours/year)	407	525	1506
_	Total Annual Employee Training Hours (hours/year)	2079.54	6914.24	7094.64
_	Number of Training Course Types (types/year)	44	101	142
_	Average Training Hours Per Employee (hours/person/year)	7.85	18.59	16.65
-	Employee Performance Evaluation Coverage Rate	100%	100%	100%
_	Supplier Integrity Commitment Signing Rate (%)	7.63%	13.88%	61.31%
	Supplier EHS Audit Rate (%)	70%	80%	83%
_	11			
-	Number of Times That Suppliers Were Found to Violate ESG (Child Labor and Forced Labor)	0	0	0

GRI Standards Indicator Index

Instructio	During the reporting period from January 1, 2024 to December 31, 2024, the compa information referenced in this GRI Content Index in accordance with the GRI Standa					
Use GRI 1	GRI 1: Basic 2021					
GRI Stanc	dards Disclosure Items	Page number	Remark			
Organiza	ation and Reporting Practices					
2–1	Organization details					
2-2	Entities included in the organization's sustainable development report					
2-3	Reporting period, reporting frequency, and contact person					
2-4	Information restatement					
2-5	External audit					
Activities	s and Workers					
2-6	Activities, value chain, and other business relationships					
2-7	Employees					
2-8	Non-employee workers					
Governa						
2-9	Governance structure and composition					
2-10	Nomination and selection of the highest governance organization					
2-11	Chairman of the highest governance organization					
2-12	In the aspect of impact management, the supervisory role of the highest governance organization					
2-13	Delegation of responsibility for impact management					
2-14	The role of the highest governance organization in sustainable development reports					
2-15	Conflict of interest					
2-16	Communication on critical concerns					
2-17	Common knowledge of the highest governance organization					
2–18	Performance evaluation of the highest governance organization					
2–19	Compensation policy					
2-20	Salary determination procedures					
2-21	Annual total remuneration ratio					
Strategie	es, Policies, and Practices					
2-22	Statement on sustainable development strategy					
2-23	Policy commitment					
2-24	Integrated policy commitment					
2-25	Negative impact remedying procedures					
2-26	Mechanisms for seeking advice and raising concerns					
2-27	Comply with laws and regulations					
2-28	Membership of the association					
Intereste	ed Party Engagement					
2-29	Methods of interested party engagement					
2-30	Collective negotiation protocol					
Substant	tive Issues					
3-1	Process for identifying substantive issues					
3-2	List of substantive issues					
3-3	Management of substantive issues					

201 Ecopor	nic Performance 2016
201-1	Directly generated and distributed economic value
201-2	The financial impacts and other risks and opportunities brought about by climate changes
201-3	Mandatory defined benefit plans and other retirement plans
	Government subsidies
	performance 2016
103	Disclosure of management method
202-1	Ratio of standard starting salary by gender to the local minimum wage
203 Indirec	t Economic Impact 2016
103	Disclosure of management method
203-1	Infrastructure investment and supportive services
203-2	Significant indirect economic impact
204 Procur	ement Practices 2016
103	Disclosure of management method
204-1	Proportion of spending on purchases from local suppliers
GRI 205 An	ti-Corruption 2016
103	Disclosure of management method
205-1	Operational sites with completed corruption risk assessments
205-2	Communication and training on anti-corruption policies and procedures
205-3	Confirmed corruption incidents and actions taken
GRI 302 En	ergy Source 2016
103	Disclosure of management method
302-1	Energy consumption within the organization
302-3	Energy intensity
302-4	Reduce energy consumption
GRI-303 Wa	ater and Wastewater 2018
303-1	The interaction between the organization and water (as a shared resource)
303-2	Manage the drainage-related impacts
303-4	Drainage
303-50	Water consumption
GRI 305 Em	sissions 2016
103	Disclosure of management method
305-1	Direct (Category 1) greenhouse gas emission
305-2	Energy indirect (Category 2) greenhouse gas emission
305-3	Other indirect (Category 3) greenhouse gas emission
305-4	Greenhouse gas emission intensity
305-5	Greenhouse gas emission reduction
305-7	Nitrogen oxides (NOX), sulfur oxide (SOX), and other major atmospheric emissions
GRI 306 Wa	ste 2020
103	Disclosure of management method
306-2	Waste classified by types and disposal methods
306-3	Major leakage accident

GRI 307 Environmental Compliance 2016 103 Disclosure of management method 307-1 Environmental law violation incident GRI 308 Supplier Environmental Management 2016 103 Disclosure of management method 308-1 New suppliers selected based on environmental standards 308-2 Negative impacts of supply chains on the environment and actions taken GRI 401-409 Employee Management 2016 103 Disclosure of management method 401 Employment 402 Labor-capital relationship 403 Occupational health and safety 2018 404 Education and training 405 Diversity and equal opportunity 406 Anti-discrimination 408 Child labor 409 Forced or compulsory labor GRI 414 Supplier Social Assessment 2016 103 Disclosure of management method 414-1 New suppliers screened using social standards 414-2 Negative impacts of supply chains on society and actions taken GRI 419 Socioeconomic Compliance 2016 103 Disclosure of management method 419-1 Violation of laws and regulations in the social and economic sectors

Reader Feedback

Company website: www.poweroad.com

Phone: +86-592-5558101 Email: sales@poweroad.com

Hello, dear readers,				
				" . If you have any comments or sugges- , or email. We sincerely appreciate your
Name:	Name: Contact nu		Ema	ail:
1. Which chapters do y	ou think provide you w	vith important infor	mation?	
□Step into POWERC)AD	☐Organizational Governance: Supporting Sustainable Development		□Innovation-Driven: Powering the Energy Revolution
☐ Low Carbon and Environmental Protection: Protecting the Future of the Earth		□People-oriented: Building a Warm Community Jointly		☐Win-Win Cooperation: Promoting Community Development
2. How do you evaluate	e this report?			
Substantiality	□Good	□Average	□Poor	
Readability	□Good	□Average	□Poor	
Integrity	□Good	□Average	□Poor	
Balance	□Good	□Average	□Poor	
Typesetting design	□Good	□Average	□Poor	
Overall impression	□Good	□Average	□Poor	
3. Do you have any sug	ggestions for our repor	rt next year?		
4. Contact us:				