GOODWE
固德威

环境政策

Environmental Policy

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作为一家全球化的新能源企业，固德威深知环境保护对可持续发展的重要性，坚持以电力电子技术为基础，在新能源的制备技术、转换技术、储能技术、使用技术和智慧能源管理系统平台等领域持续开拓创新，将公司的相关产品和解决方案推广至全球市场，致力于推动全球能源变革，携手电网、工商业园区、社区、用户共同开创智慧能源新时代！

本公司致力于实现环境可持续性，我们特制定环境政策，旨在通过一系列绿色行动，规范公司及整个供应链中在环境方面的管理要求与措施，减少对环境的影响，积极投身于降低温室气体排放，通过减少组织及产品层面的碳足迹、促进资源高效利用和推动循环经济，为应对全球气候变化做出贡献，并实现企业与自然的和谐共生。

As a global new energy enterprise, GoodWe is well aware of the importance of environmental protection to sustainable development. It insists on taking power electronics technology as the basis, continuously pioneers and innovates in the fields of new energy generation technology, conversion technology, energy storage technology, energy utilization technolgoy and smart energy management system platform, promotes the company's related products and solutions to the global market, and is committed to promoting global energy transformation. Together with power grids, industrial and commercial parks, communities and end users, it will jointly create a new era of smart energy!

The company is committed to achieving environmental sustainability, and we have specially formulated an environmental policy, aiming to reduce the impacts on environment by regulating management requirements and measures. The company actively participates in reducing greenhouse gas emissions actions which also involes the entire supply chain. By reducing the carbon footprint at the organizational and product levels, promoting efficient use of resources and promoting the circular economy, it contributes to addressing global climate change and realizes the harmonious symbiosis between the enterprise and nature.

我们深知，推动全球能源变革不能以牺牲环境为代价。

本政策承诺：

- 符合《巴黎协定》的要求，与将全球平均气温升幅控制在工业化前水平以上 2℃ 之内，并努力限制在 1.5℃ 之内的全球温控目标保持一致。

- 在所有制造工厂建立并维护 ISO 14001 环境管理体系， 同时推进建立 ISO 50001 能源管理体系；
- 不资助否认气候科学或反对气候监管的游说活动；如发现已加入组织的立场与本原则存在重大不一致，将开展沟通并重新评估相关参与或支持关系。
- 持续减少组织层面及产品层面的碳足迹，推动循环经济发展；

本政策适用于固德威技术股份有限公司及合并财务报表的分、子公司，并要求供应商、服务商、承包商及其他主要业务合作伙伴积极遵守此政策或同等政策要求。

We are deeply aware that driving global energy transformation must not come at the expense of the environment.

This policy commits to:

- Aligning with the requirements of the *Paris Agreement*, and remaining consistent with the global temperature goals of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit it to 1.5°C.
- Establishing and maintaining ISO 14001 environmental management systems in all manufacturing facilities, and advancing the establishment of ISO 50001 energy management systems.
- Not funding lobbying activities that deny climate science or oppose climate regulation; should material inconsistencies be found in the positions of participating organizations, we will engage in dialogue and reassess the relevant participation or support relationships.
- Continuously reducing our carbon footprint at both the organizational and product levels, and promoting the development of a circular economy.

This policy applies to GoodWe Technologies Co., Ltd. and its branches and subsidiaries included in the consolidated financial statements, and requires our suppliers, service providers, contractors, and other key business partners to actively comply with this policy or equivalent policy requirements.

1. 治理架构与职责分配 Internal responsibility allocation

治理架构 Governance Architecture

建立“董事会-ESG 战略与管理委员会-ESG 执行层” 三级环境管理体系，明确决策、监督、执行的分层责任机制：

Establish a three - level environmental management system of "Board of Directors - ESG Strategy and Management Committee - ESG Executive Level", and clarify the hierarchical responsibility mechanism for decision - making, supervision, and execution

职责分配 Responsibility Allocation

- 董事会：审批环境政策及中长期目标，审议环境绩效报告，对重大环境事项作出决策，保障环境管理战略与公 司整体发展方向一致，并为核心环境议题的持续改进配置足量资源。
- ESG 战略与管理委员会：由集团 ESG 重大议题领导小组、EHS 委员会、信息安全委员会和可持续发展研究院组成，负责环境政策落地规划、跨部门资源协调及目标拆解，每年向董事会专题汇报政策实施进展，确保环境管理工作有序推进。
- ESG 执行层:环境管理部门及 ESG 管理部门：牵头环境政策执行、环境数据监测统计、环保合规审核，组织开展清洁生产审核及 ISO 14001、ISO 50001 等体系认证维护，为各业务单元提供环保技术支持。
- 研发部门：主导绿色产品设计与低碳技术研发，将环保要求融入产品全生命周期设计环节，推动新能源装备能 效提升与环境友好性优化。
- 生产部门：落实生产环节节能降耗、废弃物分类处置、化学品规范管理等要求，保障生产过程符合环保标准， 及时整改环境管理隐患。
- 采购部门：推进绿色供应链建设，将环境绩效纳入供应商选择与评估标准，开展供应商环保合规审查，推动供 应链上下游环保协同。
- 各业务单元：设立专职 / 兼职环境管理员，负责本单元日常环境管理措施执行、环境问题收集反馈，组织本单元员工参与环保培训与绿色行动。
- Board of Directors: Approve environmental policies and medium- and long-term goals, review environmental performance reports, make decisions on major environmental issues, ensure that the environmental management strategy is consistent with the overall development direction of the company, and match the major environmental subjects with sufficient resources to support their continuous improvements.
- ESG Strategy and Management Committee: Composed of the Leading Group for Major ESG Issues of the Group, the EHS Committee, the Information Security Committee, and the Institute of Sustainable Development, it is responsible for the

implementation planning of environmental policies, cross - departmental resource coordination, and goal decomposition. It reports the progress of policy implementation to the board of directors on a special topic annually to ensure the orderly progress of environmental management work.

- ESG implementation layer： Environmental management department and ESG management department: Take the lead in implementing environmental policies, monitoring and statistics of environmental data, and reviewing environmental protection compliance. Organize cleaner production audits and maintain system certifications such as ISO 14001 and ISO 50001, and provide environmental protection technical support to each business unit.
- Production department: Implement requirements such as energy conservation and consumption reduction in the production process, classified disposal of waste, and standardized management of chemicals, ensure that the production process meets environmental protection standards, and promptly rectify potential environmental management hazards.
- Procurement department: Promote the construction of a green supply chain, incorporate environmental performance into the criteria for supplier selection and evaluation, conduct environmental compliance reviews of suppliers, and promote environmental collaboration across the upstream and downstream of the supply chain.
- All business units: Appoint full-time/part-time environmental administrators to be responsible for the implementation of daily environmental management measures in the unit, the collection and feedback of environmental issues, and organize employees in the unit to participate in environmental protection training and green actions.

责任机制 Accountability mechanism

- **一票否决**：将环境绩效纳入各部门及管理层 KPI，实行"环保一票否决制"；
- **培训覆盖**：每年组织不少于 2 次环保专题培训，确保员工节水知识知晓率 100%；
- **创新激励**：设立"环保小站"等内部建议平台，鼓励员工提出节能减排创新方案，对采纳建议给予奖励；
- **监督反馈**：开通环境诉求反馈渠道（电话：0512-62396791；邮箱：GOODWE-Inform@goodwe.com），主动接受内部员工与利益相关方监督。
- One-Vote Veto: Integrate environmental performance into the KPIs of all departments and management, and implement an "environmental protection one-vote veto system";

- Training Coverage: Organize no fewer than 2 environmental protection special training sessions each year to ensure 100% awareness of water-saving knowledge among employees;
- Innovation Incentives: Establish internal suggestion platforms such as "Environmental Protection Stations" to encourage employees to propose energy-saving and emission-reduction innovative solutions, and provide rewards for adopted suggestions;
- Supervision and Feedback: Open channels for environmental complaints and feedback (Tel: 0512-62396791; Email: GOODWE-Inform@goodwe.com), actively accepting supervision from internal employees and stakeholders.

2. 健全环境管理体系 Strengthening the Environmental Management System

公司的 ESG 战略与管理委员会作为最高管理机构，负责环境管理相关事务的决策与监督，跟踪考核环境管理相关绩效指标。公司董事长及高管领导组成安全生产委员会作为执行机构，全面落实统筹公司环境管理相关工 作，将环境管理融入公司各项业务。

严格遵守环境管理相关的《中华人民共和国生态环境法典》，包括但不限于《中华人民共和国环境保护法》《中华人民共和国大气污染防治法》《中华人民共和国固体废物污染环境防治法》《中华人民共和国水污染防治法》《中华人民共和国环境影响评价法》等，以及其他公司运营所在地的法律法规及实施细则和条例，全面落实环境合规要求。

承诺将环境政策全面融入公司治理与发展战略，将环境管理作为关键议题纳入公司可持续发展管理。积极推动环境管理体系的覆盖及完善，在所有制造工厂建立并维护 ISO 14001 等环境管理体系，确保持续改进。

The Company's ESG Strategy and Management Committee serves as the highest governing body, responsible for decision-making and oversight of environmental management-related matters, as well as for tracking and assessing environmental performance indicators. The Safety Production Committee, led by the Chairman and senior executives, acts as the executive body to fully coordinate and implement environmental management across all business operations, embedding environmental management into every aspect of the Company's activities.

We strictly comply with the *Environmental Code of the People's Republic of China* and related environmental laws and regulations, including but not limited to the *Environmental Protection Law*, the *Air Pollution Prevention and Control Law*, the *Law on the Prevention*

and Control of Solid Waste Pollution, the *Water Pollution Prevention and Control Law*, the *Environmental Impact Assessment Law*, as well as other applicable laws, regulations, and implementing rules in the regions where we operate, to fully implement environmental compliance requirements.

We commit to fully integrating environmental policies into corporate governance and development strategies, and to incorporating environmental management as a key topic into our sustainable development management. We actively promote the coverage and continuous improvement of environmental management systems, and we establish and maintain ISO 14001 and other environmental management systems in all manufacturing facilities to ensure ongoing enhancement.

3. 应对气候变化 Addressing Climate Change

固德威将应对气候变化视为企业核心战略议题之一。我们不仅通过光伏、储能、热泵与智慧能源解决方案帮助全球客户实现减碳，更致力于减少自身运营与价值链的碳足迹。

GoodWe regards climate change as one of its core strategic issues. We not only help our global customers reduce carbon emissions through photovoltaic, energy storage, heat pump and smart energy solutions, but we are also committed to reducing our own operational and value-chain carbon footprint.

3.1 气候战略与目标 Climate Strategy and Targets

- **温控目标**：与《巴黎协定》1.5℃ 路径保持一致，承诺不晚于 2050 年实现供应链净零排放。
- **中期目标**：以 2025 年为基准年，到 2030 年实现范围 1+2 温室气体绝对排放量减少 30%；
- **科学碳目标**：积极参与 SBTi（科学碳目标倡议），确保减排目标符合气候科学要求；
- **碳盘查**：完成覆盖范围 1、2、3 的全面温室气体盘查，建立年度盘查与第三方核查机制，确保数据严谨、客观、及时。
- **产品碳足迹：**持续推动产品获得碳足迹证书或 EPD（环境产品声明）认证。
- Temperature control target: Align with the 1.5°C pathway of the *Paris Agreement* and commit to achieving net-zero emissions in our supply chain no later than 2050.
- Mid-term target: Using 2025 as the baseline year, achieve an absolute reduction of 30% in Scope 1+2 carbon emissions by 2030.

- Science‑based targets: Actively participate in the SBTi (Science Based Targets initiative) to ensure that our emission reduction targets are consistent with climate science requirements.
- Carbon inventory: Complete comprehensive greenhouse gas inventories covering Scopes 1, 2, and 3, and establish annual inventory and third‑party verification mechanisms to ensure that data is rigorous, objective, and timely.
- Product carbon footprint: Continuously promote the acquisition of carbon footprint certificates or EPD (Environmental Product Declaration) certifications for our products.

3.2 自身运营脱碳（范围 1+2）Own Operations Decarbonization (Scope 1+2)

- **清洁能源替代**：优先采购并使用绿色清洁电力，在生产园区及办公区域推广光伏自发自用系统，逐步提高可再生能源使用比例；
- **能效提升**：持续优化生产设备与工艺流程能效，引入智能化能耗监测与管控系统，实时监控并降低能源消耗；
- **技术创新减碳**：积极采用人工智能、物联网技术进行能源管理和优化、智能排产、物料库存策略优化，以数字化手段挖掘节能潜力；
- **工艺改进**：通过改善生产工艺、设备升级、余热回收等措施减少直接排放；
- **绿电交易与绿证**：在无法直接接入可再生能源的场景，通过绿色电力交易或购买国际认可的绿证（I-REC、GEC 等）实现间接减排。
- Clean energy substitution: Prioritize the procurement and use of green and clean electricity; promote the installation of PV self-consumption systems in production campuses and office areas, gradually increasing the proportion of renewable energy used.
- Energy efficiency improvement: Continuously optimize the energy efficiency of production equipment and processes; introduce intelligent energy monitoring and control systems to monitor and reduce energy consumption in real time.
- Technology-driven carbon reduction: Actively adopt AI, IoT technologies for energy management and optimization, intelligent production scheduling, and material inventory strategy optimization, using digital means to unlock energy-saving potential.
- Process improvement: Reduce direct emissions through measures such as improving production processes, upgrading equipment, and recovering waste heat.

- Green power trading and green certificates: In scenarios where direct access to renewable energy is not feasible, achieve indirect emission reductions through green power purchase agreements or by purchasing internationally recognized green certificates (e.g., I-REC, GEC, etc.).

3.3 价值链碳管理（范围 3）Value Chain Carbon Management (Scope 3)

- **供应链低碳转型**：推动核心供应商开展碳盘查并设定减排目标，将碳绩效纳入供应商准入与年度评估；
- **绿色物流**：优化运输路线和方式，优先采用铁路或海运等低碳运输选项；鼓励供应商和物流公司使用新能源运输工具；提高物流效率，减少空载，优化货物装载；
- **产品使用阶段**：通过智慧能源管理系统为用户提供个性化能耗优化方案，助力终端用户降低能源消耗与碳排放；
- **产品末端**：开展产品模块化、易拆解设计，提高零部件复用率与材料回收率；与具备资质的专业机构合作，推进废弃光伏逆变器、储能电池等产品的安全、环保处置。
- Low-carbon supply chain transformation: Encourage core suppliers to conduct carbon inventories and set emission reduction targets; incorporate carbon emissions into supplier access and annual performance assessments.
- Green logistics: Optimize transportation routes and modes, prioritizing lower-carbon options such as rail or sea freight; encourage suppliers and logistics providers to use new-energy vehicles; improve logistics efficiency by reducing empty loads and optimizing cargo loading.
- Product use phase: Provide users with personalized energy optimization solutions through smart energy management systems, helping end customers reduce energy consumption and carbon emissions.
- End-of-life products: Implement modular and easy-to-disassemble product designs to improve component reuse rates and material recycling rates; cooperate with qualified professional institutions to promote the safe and environmentally sound disposal of discarded PV inverters, energy storage batteries, and other products.

3.4 气候适应与韧性 Climate Adaptation and Resilience

- **风险评估**：依据 TCFD 框架，定期识别和评估气候相关物理风险（极端天气、洪涝、高温）与转型风险（政策、技术、市场、声誉）对业务的影响；
- **韧性建设**：在工厂选址、建筑设计、供应链布局中纳入气候韧性考量；广德零碳园区作为气候韧性示范，采用分布式能源与微电网技术提升抗风险能力；

- **业务连续性**：制定极端气候事件应急预案，确保关键生产设施与数据中心的连续运营能力。
- Risk assessment: In accordance with the TCFD framework, regularly identify and assess the impact of climate-related physical risks (extreme weather, flooding, high temperatures) and transition risks (policy, technology, market, reputation) on our business.
- Resilience building: Incorporate climate resilience considerations into factory siting, building design, and supply chain layout; the Guangde Zero-Carbon Park serves as a climate resilience demonstration, utilizing distributed energy and microgrid technologies to enhance risk resistance.
- Business continuity: Develop emergency response plans for extreme climate events to ensure the continuous operation of key production facilities and data centers.

3.5 零碳园区示范 Zero-Carbon Park Demonstration

- **广德零碳园区**：入围首批"国家级零碳园区"建设名单，全面应用逆变器、储能、光电建材、充电桩、热泵等一体化解决方案，打造可复制、可推广的零碳智慧园区样板；
- **园区能效**：使用高效节能设备和绿色建材，提高建筑围护结构保温隔热性能，推动建筑电气化和智能化运行管理；
- **绿色交通**：停车场设置充足充电桩，用光电建材建造车棚，为员工和来访者提供绿色停车体验的同时最大化利用有限土地资源产生可再生能源。
- Guangde Zero-Carbon Park: Selected as one of the first batch of "National Zero-Carbon Parks" for construction, the park fully applies integrated solutions including inverters, energy storage, PV building materials, charging piles, and heat pumps, creating a replicable and scalable model of a zero-carbon smart park.
- Park energy efficiency: Utilize high-efficiency equipment and green building materials, improve the thermal insulation performance of building envelopes, and promote building electrification and intelligent operational management.
- Green transportation: Install sufficient charging piles in parking areas and construct canopies using PV building materials, providing employees and visitors with a green parking experience while maximizing the use of limited land resources to generate renewable energy.

4. 运营环境管理 Operational Environmental Management

4.1 水资源管理 Water Resource Management

- 公司承诺保障节水投入，优先选用节水型设施与器具，推动用水技术升级；
- 持续降低单位人员生活用水量，争做行业生活用水管理标杆；
- 严格遵守国家及地方水资源管理法律法规，将水资源节约与高效利用纳入公司可持续发展战略。
- 以 2023 年为基准到 2030 年公司年度用水总量较基准年下降 5%；2023 年-2030 年期间确保每年员工节水知识知晓率达到 100%，每年开展节水培训不少于 2 次；
- The Company commits to ensuring investment in water conservation, prioritizing water-efficient facilities and fixtures, and promoting technological upgrades in water use.
- Continuously reduce per‑capita domestic water consumption, striving to set a benchmark in domestic water management within the industry.
- Strictly comply with national and local laws and regulations on water resource management, and integrate water conservation and efficient utilization into the Company's sustainable development strategy.
- Using 2023 as the baseline year, achieve a 5% reduction in total annual water consumption by 2030 compared to the baseline year; ensure that employee awareness of water‑saving knowledge reaches 100% each year from 2023 to 2030, and conduct no fewer than 2 water-saving training sessions annually.

4.2 废弃物与化学品 Waste and Chemicals

- 实施垃圾分类，确保有害废弃物规范处置率 100%；
- 食堂厨余湿垃圾实施定点分类回收与专项清运，通过有机垃圾资源化利用降低碳排放；
- 建立化学品全生命周期管理台账，优先采购低毒、低污染替代品；
- 以 2023 年为基准，到 2030 年危化品使用量较基准年减少 20%，化学品泄漏事故发生率为 0。
- 配备泄漏防护与应急吸附设施，每年组织不少于 1 次化学品泄漏应急演练；
- 到 2030 年供应商化学品合规性审核覆盖率达到 100%。
- 2023 年-2030 年期间确保每年有害废弃物规范处置率 100%。
- 以 2023 年为基准，到 2030 年工业固废综合利用率达到 95%，危险废弃物产生量较基准年下降 30%，实现包装材料 100% 可回收或可降解。

- Implement waste segregation to ensure that 100% of hazardous waste is properly disposed of in compliance with regulations.
- Implement segregated collection and dedicated removal of kitchen organic waste from canteens, reducing carbon emissions through resource utilization of organic waste.
- Establish a full‑lifecycle management ledger for chemicals, prioritizing the procurement of low-toxicity, low-pollution alternatives.
- Using 2023 as the baseline year, reduce the use of hazardous chemicals by 20% by 2030 compared to the baseline year, and achieve zero chemical spill incidents.
- Equip with spill containment and emergency response facilities, and organize no fewer than 1 chemical spill emergency drill annually.
- Achieve 100% supplier chemical compliance audit coverage by 2030.
- Ensure that 100% of hazardous waste is properly disposed of in compliance with regulations each year from 2023 to 2030.
- Using 2023 as the baseline year, achieve a comprehensive industrial solid waste utilization rate of 95% by 2030, reduce hazardous waste generation by 30% compared to the baseline year, and ensure that 100% of packaging materials are recyclable or biodegradable.

4.3 工业噪声与排放管理 Industrial Noise and Emission Management

- 严格遵守《中华人民共和国生态环境法典》及运营地环保法规；
- 确保废气、废水、噪声排放持续达标；
- 每年委托第三方机构开展至少一次环保检测。
- Strictly comply with the *Environmental Code of the People's Republic of China* and local environmental regulations in all operating regions.
- Ensure that waste gas, wastewater, and noise emissions continuously meet regulatory standards.
- Commission a third-party organization to conduct environmental testing at least once annually.

4.4 严控有害物质 Strict Control of Hazardous Substances

固德威严格执行有害物质全过程管控，确保生产运营与产品全生命周期符合国际法规及客户要求。

GoodWe implements rigorous full-process control of hazardous substances to ensure that production operations and the entire product life cycle comply with international regulations and customer requirements.

生产过程管控：Production Process Control

- 对废气中的 VOCs、酸碱废气、焊接烟尘等实施收集与末端治理，确保达标排放；
- 对废水中的重金属、有机污染物等实施分类收集、分质处理，严禁稀释排放或偷排漏排；
- 建立危险废物管理台账，含重金属、有机溶剂、废酸碱液等危险废物 100%交由具备资质的单位处置，转移联单完整可追溯；
- 到 2030 年，危险废弃物合规处置率保持 100%，危险废弃物产生量较 2023 年下降 30%。
- Implement collection and end-of-pipe treatment for VOCs, acid/alkaline waste gases, welding fumes, etc., to ensure compliant emissions;
- Implement separate collection and treatment by type for heavy metals, organic pollutants, and other substances in wastewater, strictly prohibiting dilution discharge or illegal/hidden discharge;
- Establish hazardous waste management ledgers; ensure that 100% of hazardous wastes, including those containing heavy metals, organic solvents, and waste acid/alkali solutions, are handed over to qualified entities for disposal, with complete and traceable transfer manifests;
- By 2030, maintain a 100% hazardous waste compliance disposal rate, and reduce hazardous waste generation by 30% compared to 2023.

产品合规管控：Product Compliance Control

- 严格执行欧盟 RoHS、REACH、POPs 法规及全球各销售地有害物质限制要求；
- 通过 IECQ QC080000 有害物质过程管理体系认证，建立有害物质清单（HSL）与供应链申报机制；
- 在原材料选型中优先采用无铅、无卤、低 VOCs 材料，从源头削减有害物质使用；
- 配备检测设备，对来料及成品进行有害物质筛查与验证；
- Strictly comply with EU RoHS, REACH, POPs regulations and hazardous substance restriction requirements in all sales regions globally;
- Obtain IECQ QC080000 Hazardous Substance Process Management System certification, and establish a Hazardous Substances List (HSL) and supply chain declaration mechanism;

- Prioritize the use of lead-free, halogen-free, and low-VOCs materials in raw material selection to reduce hazardous substance use at the source;
- Equip with testing instruments to conduct hazardous substance screening and verification on incoming materials and finished products.

供应商管控：Supplier Control

- 将有害物质合规纳入供应商准入审核与年度绩效评估；
- 要求关键原材料供应商签署有害物质保证协议，提供第三方检测报告（如 SGS、TÜV）；
- 对高风险物料实施批次抽检与供应商现场审核。
- Incorporate hazardous substance compliance into supplier access audits and annual performance evaluations;
- Require key raw material suppliers to sign hazardous substance guarantee agreements and provide third-party test reports (e.g., from SGS, TÜV);
- Conduct batch sampling inspections and on-site supplier audits for high-risk materials.

5. 产品全生命周期环境管理 Product Life-Cycle Environmental Management

5.1 绿色设计 Green Design

- 将全生命周期环境影响纳入产品设计，优先设计轻量化、低能耗、长寿命产品；
- 开展产品模块化、易拆解设计，提高零部件复用率与材料回收率；
- 积极开展产品生命周期评估（LCA），逐步提供 EPD 或 ISO 14067 产品碳足迹认证。
- Incorporate life - cycle environmental impact into product design, prioritizing lightweight, low-energy-consumption, and long-life products;
- Implement modular and easy-to-disassemble product designs to improve component reuse rates and material recycling rates;
- Actively conduct product Life Cycle Assessments (LCA) and gradually provide EPD or ISO 14067 product carbon footprint certifications.

5.2 产品能效 Product Energy Efficiency

- 以“高效节能、环境友好”为核心开展产品研发设计，确保光伏并网逆变器、储能逆变器等核心产品能效水平优于行业标准；
- 通过智慧能源管理系统为用户提供个性化能耗优化方案，助力用户降低能源消耗与碳排放；持续改进产品运行稳定性，减少产品使用过程中的故障与能耗损失。

- 到 2030 年，重点产品生命周期研究覆盖率达到 100%，储能系统全生命周期能效提升至90%以上。
- Carry out product R&D and design with a core focus on "high energy efficiency and environmental friendliness," ensuring that the energy efficiency levels of core products such as PV grid‑tied inverters and storage inverters exceed industry standards;
- Provide users with personalized energy optimization solutions through smart energy management systems, helping users reduce energy consumption and carbon emissions; continuously improve product operational stability to minimize faults and energy losses during use.
- By 2030, achieve 100% life-cycle study coverage for key products, and raise the full-life-cycle energy efficiency of energy storage systems to above 90%.

5.3 产品末端管理 End-of-Life Product Management

- 与具备资质的专业机构合作，推进废弃光伏逆变器、储能电池等产品的安全环保处置；以 2023 年为基准，到 2030 年实现废旧储能电池材料回收率不低于 95%。
- 生产者责任延伸（EPR）与废弃产品合规：严格遵守欧盟 WEEE 指令、电池法规（EU Battery Regulation 2023/1542）及全球各销售地 EPR 制度，在业务覆盖国家/地区完成电子电器、电池及包装物的 EPR 注册，履行产品废弃后的收集、回收与无害化处置责任，按期申报投放量并缴纳相关费用；
- Cooperate with qualified professional institutions to promote the safe and environmentally sound disposal of end-of-life PV inverters, energy storage batteries, and other products; using 2023 as the baseline year, achieve a recovery rate of no less than 95% for waste energy storage battery materials by 2030.
- Extended Producer Responsibility (EPR) and Waste Product Compliance: Strictly comply with the EU WEEE Directive, the Battery Regulation (EU) 2023/1542, and EPR regulations in all sales regions globally; complete EPR registration for electrical and electronic equipment, batteries, and packaging in the countries/regions where we operate; fulfill the obligations of collection, recycling, and environmentally sound disposal of discarded products; declare placed-on-market volumes and pay relevant fees on schedule.

5.4 消费者健康与安全 Consumer Health and Safety

- 建立产品全流程健康安全管控体系，杜绝有害物质超标；

- 配备环境适应性测试、并网安全测试等关键检测设备，确保出厂前通过严格检测；
- 建立产品环保或安全相关客诉快速响应机制，承诺 48 小时内响应；
- 储能系统、光电建材等核心产品通过 UL、TÜV 等国际安全认证覆盖率 100%，
- 产品环保与安全相关客诉解决满意度达到 98%以上，因产品环保或安全问题引发的客诉率低于 0.1‰。
- Establish a full-process health and safety control system for products to prevent any excessive hazardous substances.
- Equip with key testing facilities for environmental adaptability tests, grid-connection safety tests, etc., to ensure that all products pass strict testing before leaving the factory.
- Establish a rapid response mechanism for product-related environmental or safety complaints, committing to respond within 48 hours.
- Achieve 100% coverage of international safety certifications such as UL and TÜV for core products including energy storage systems and PV building materials.
- Achieve a complaint resolution satisfaction rate of over 98% for product environmental and safety issues, and maintain a customer complaint rate due to product environmental or safety issues below 0.1‰.

6. 供应链环境管理 Supply Chain Environmental Management

- 优先选择采用环保材料、实施节能减排且符合可持续发展标准的供应商；
- 在供应商行为准则中明确减碳承诺，将环境绩效纳入供应商选择与评估标准；
- 开展冲突矿产尽职调查，确保原材料来源合法、无强迫劳动；
- 到 2030 年，推动核心供应商建立碳盘查与减排目标。
- Give priority to suppliers that use environmentally friendly materials, implement energy conservation and emission reduction measures, and meet sustainability standards.
- Explicitly include carbon commitments in the Supplier Code of Conduct, and incorporate environmental performance into supplier selection and evaluation criteria.
- Conduct conflict minerals due diligence to ensure that raw materials are legally sourced and free from forced labor.
- By 2030, drive core suppliers to establish carbon inventories and emission reduction targets.

7. 生物多样性保护与社会参与 Biodiversity Conservation and Social Engagement

- 遵守国家和地方生物多样性保护法律法规，确保所有业务活动在法律框架内进行；
- 支持政府和全球非政府组织的环境保护项目；
- 与政府、行业协会、非政府组织、工会等利益相关方合作，共同推动全产业供应链的可持续性；
- 对员工进行环保意识和可持续实践培训，鼓励员工通过"环保小站"等内部平台提出绿色改进建议。
- Comply with national and local laws and regulations on biodiversity conservation, ensuring that all business activities are conducted within the legal framework.
- Support environmental protection projects initiated by governments and global governmental organizations.
- Cooperate with governments, industry associations, non-governmental organizations, trade unions, and other stakeholders to jointly promote sustainability across the entire industrial chain.
- Provide environmental awareness and sustainable practices training to employees, and encourage employees to propose green improvement suggestions through internal platforms such as the "Environmental Protection Stations."

8. 环境风险评估与应急管理 Environmental Risk Assessment and Emergency Management

- 建立环境风险评估机制，定期识别生产经营活动中的潜在环境风险；
- 针对识别出的风险制定详细应急预案，并定期组织演练；
- 确保在突发环境事件时能够迅速、有效应对，并及时向监管部门报告。
- 设定明确的环保目标，建立环境绩效监测体系，定期跟踪目标达成情况。确保所有活动符合当地和国际的环境法规，并定期发布可持续发展报告，加强与政府、客户、供应商及公众之间的沟通，增强企业经营的透明度， 接受社会各界的监督与建议，不断完善环境管理工作。
- Establish an environmental risk assessment mechanism to regularly identify potential environmental risks arising from production and operational activities.
- Develop emergency response plans for identified risks and organize regular drills.

- Ensure rapid and effective response to environmental emergencies, and report to regulatory authorities in a timely manner.
- Set clear environmental objectives, establish an environmental performance monitoring system, and regularly track the achievement of targets. Ensure that all activities comply with local and international environmental regulations, and regularly publish sustainability reports to enhance communication with governments, customers, suppliers, and the public, thereby increasing corporate transparency and accepting supervision and suggestions from all sectors of society to continuously improve environmental management.

9. 政策审查与更新 Policy Review and Update

- **年度审查**：ESG 战略与管理委员会每年第一季度组织审查政策执行情况，对照量化目标分析绩效数据，提交董事会审议，并通过公司官网向社会公开；
- **三年全面评估**：每三年结合法律法规更新、行业技术趋势及利益相关方诉求变化，评估政策适用性与目标合理性；
- **触发更新**：当国家/地方环保法规重大调整、业务范围拓展、量化目标连续两年未达成或出现新风险时，启动更新程序。

  由环境管理部门牵头，联合研发、生产、采购等相关部门起草政策更新草案，经 ESG 战略与管理委员会组织论证、职工代表大会征求员工意见后，报董事会审批。更新后的政策自发布之日起生效，通过公司官网及内部文档云系统公示，确保全体员工与利益相关方知晓。

  Annual Review: The ESG Strategy and Management Committee shall organize a review of policy implementation in the first quarter of each year, analyze performance data against quantitative targets, submit the results to the Board of Directors for deliberation, and disclose them to the public through the Company's official website.

  Three‑Year Comprehensive Assessment: Every three years, assess the policy's applicability and the reasonableness of its targets, taking into account updates to laws and regulations, industry technology trends, and changes in stakeholder expectations.

  Trigger‑Based Revision: Initiate the revision process when significant adjustments occur in national or local environmental regulations, when the business scope expands, when quantitative targets are missed for two consecutive years, or when new risks emerge.

The environmental management department shall take the lead and collaborate with relevant departments such as R & D, production, and procurement to draft a policy update proposal. After the ESG Strategy and Management Committee conducts an evaluation and the employee representatives' congress solicits employees' opinions, it shall be submitted to the board of directors for approval. The updated policy shall come into effect as of the date of issuance and be publicly announced through the company's official website and internal document cloud system to ensure that all employees and stakeholders are aware of it.

合规与认证 Compliance and Certification

每年委托第三方机构开展至少一次环保合规性审计，确保公司生产运营各环节符合废气、废水、噪声、固废等排放标准；持续维护 ISO 14001 环境管理体系、ISO 50001 能源管理体系认证有效性，积极参与国家级绿色工厂、绿色供应链管理企业等评价工作，以外部认证推动内部环境管理水平提升。

Commission a third-party institution to conduct at least one environmental compliance audit annually to ensure that all aspects of the company's production and operation comply with emission standards for waste gas, wastewater, noise, solid waste, etc.; Continuously maintain the effectiveness of the ISO 14001 Environmental Management System and ISO 50001 Energy Management System certifications, and actively participate in evaluations for national-level green factories and green supply chain management enterprises, using external certifications to drive the improvement of internal environmental management.

持续改进和创新 Continuous improvement and innovation

不断寻求新的技术、工艺和方法来减少组织及产品碳足迹，如采用人工智能和物联网技术进行能源管理和优 化、智能排产、物料库存策略优化等。

Constantly seek new technologies, processes, and methods to reduce the carbon footprint of the organization and products, such as using artificial intelligence and Internet of Things technologies for energy management and optimization, intelligent production scheduling, and optimization of material inventory strategies.

通过实施上述环境政策，我们坚信能够为公司创造一个更加绿色、可持续的发展环境，为全球的可持续发展贡 献我们的力量。

By implementing the above environmental policies, we firmly believe that we can create a greener and more sustainable development environment for the company, and contribute our strength to global sustainable development.

本政策经公司批准，自 2026 年 9 月 1 日起生效

固德威技术股份有限公司

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固德威历年 ESG 报告

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