TIANNENG POWER
INTERNATIONAL LIMITED
天能動力國際有限公司
(於開曼群島註冊成立之有限公司)
股份代號 :00819
(Incorporated in the Cayman Islands with limited liability)
Stock code：00819

TIANNENG POWER
INTERNATIONAL LIMITED
天能動力國際有限公司

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2025

環境、社會與管治（ESG）報告

Environmental, Social and Governance (ESG) Report

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報告目的與範圍

本報告是天能動力國際有限公司（「本公司」）及其附屬公司（統稱「集團」、「本集團」或「天能」、「我們」）自 2014 年以來編製的第十二份環境、社會及管治（ESG）報告，旨在系統性披露天能動力於 2025 財政年度（即 2025 年 1 月 1 日至 2025 年 12 月 31 日）在環境、社會及管治方面的策略、管理方針、績效表現及未來目標。

Goal and Scope of the Report

This report is the 12th Environmental, Social, and Governance (ESG) report prepared by Tianneng Power International Limited (the "Company") and its subsidiaries (collectively referred to as the "Group", "Tianneng" or "we") since 2014. It aims to systematically disclose the Group's strategies, management approaches, performance, and future goals in environmental, social, and governance aspects for the 2025 fiscal year (from January 1, 2025, to December 31, 2025).

報告依據與合規聲明

本報告嚴格遵循香港聯合交易所有限公司（「聯交所」）頒佈的《香港聯合交易所有限公司證券上市規則》（「《上市規則》」）附錄 C2《環境、社會及管治報告守則》（「《ESG 報告守則》」）之規定編製，並參照以下國際標準與框架以提升報告質素與可比性：

- 全球報告倡議組織（GRI）《GRI 標準（2021）》
- 國際永續發展準則理事會（ISSB）《IFRS S1 及 S2 永續相關揭露準則》
- 聯合國可持續發展目標（SDGs）

本報告已履行「不遵守就解釋」原則，對所有「強制披露」、「關鍵績效指標（KPIs）」及「氣候相關披露」進行全面回應；對於未完全達標之「建議披露」項目，已提供合理解釋。

Report Basis and Compliance Statement

This report is prepared in strict accordance with the provisions of Appendix C2-*Environmental, Social and Governance Reporting Code* ("*ESG Reporting Code*") to the *Rules Governing the Listing of Securities on the Stock Exchange* ("*Listing Rules*") Published by The Stock Exchange of Hong Kong Limited ("Stock Exchange"). It also references the following international standards and frameworks to enhance the report's quality and comparability:

- Global Reporting Initiative Sustainability Reporting Standards (*GRI Standards* (2021))
- International Sustainability Standards Board (ISSB) IFRS *S1 and S2 Sustainability-related Disclosure Standards*
- Sustainable Development Goals (SDGs) issued by the United Nations

This report complies with the "comply or explain" principle, providing comprehensive responses to all "mandatory disclosure requirements," "Key Performance Indicators (KPIs)," and "climate-related disclosures." For "recommended disclosures" that are not fully met, reasonable explanations have been provided.

報告編製核心原則

本報告嚴格遵循聯交所《ESG 守則》第 B 部分「報告原則」要求，確保披露內容具備實質性、可信度與決策有用性。具體應用如下：

- 重要性：本報告內容基於 2025 年重要性評估結果進行披露，即對本集團及利益相關方有重大影響的實質 ESG 議題的分析；
- 量化：本報告以量化方式提供主要績效數值，附帶統計口徑及數據來源相關說明；除另有說明外，本報告所載貨幣金額均以人民幣為單位，數據尾差係四捨五入所致。
- 平衡：本報告將同步披露績效亮點和未達標事項，說明不足原因及具體改善行動；
- 一致性：本報告的邊界、數據計算方法將與年報完全保持一致，確保 ESG 相關信息在歷年及未來具有可比性，並提供數據變化的相關分析。

Core Principles of Report Preparation

This report strictly adheres to the requirements of Part B "Reporting Principles" of the *ESG Reporting Code*, ensuring that the disclosed content possesses materiality, credibility, and decision-usefulness. The specific application is as follows:

- Materiality: The content of this report is disclosed based on the results of the 2025 materiality assessment, which analyzes material ESG issues that have a significant impact on the Group and its stakeholders.
- Quantitative: This report provides key performance figures quantitatively, accompanied by relevant explanations of statistical scopes and data sources.（Unless otherwise specified, all monetary amounts in this report are denominated in Renminbi (RMB), and any discrepancies in totals are due to rounding.）
- Balance: This report will simultaneously disclose performance highlights and areas of non-compliance, explaining the reasons for deficiencies and specific improvement actions.
- Consistency: The boundaries and data calculation methods of this report will be fully consistent with the annual report to ensure the comparability of ESG-related information over the years and in the future, and provide relevant analysis of data changes.

報告發佈與溝通

本報告以繁體中文和英文兩種語言發佈，並以電子版本形式提供。如不同語言版本的內容存在歧義或差異，則以繁體中文版為準。投資者可通過公司官網或網站下載本報告，以便查閱。

Report Release and Communication

This report is published in both Traditional Chinese and English and is available in electronic format. In the event of any discrepancies or differences between the two language versions, the Traditional Chinese version shall prevail. Investors can download this report from the Company's official website or the website of the Stock Exchange for their reference.

免責聲明

本報告中部分內容可能包含前瞻性陳述，包括但不限於公司未來發展計劃、目標及策略等。這些陳述基於公司管理層當前的預期和假設，但可能會受到各種已知和未知風險、不確定性及其他因素的影響，導致實際結果可能與前瞻性陳述中描述的內容存在重大差異。

公司不對前瞻性陳述的更新或修訂承擔任何責任，無論是由於新信息、未來事件或其他原因引起的變化。此外，本報告中所提供的數據僅供參考之用，並不構成任何投資建議或決策依據。投資者需自行評估相關風險，並對其投資決策負責。

Disclaimer

Some of the content in this report may contain forward-looking statements, including but not limited to the Company's future development plans, goals, and strategies. These statements are based on the current expectations and assumptions of the Company's management, but they may be influenced by various known and unknown risks, uncertainties, and other factors, which could cause actual results to differ materially from those described in the forward-looking statements.

The Company does not assume any responsibility for updating or revising the forward-looking statements, whether due to new information, future events, or other reasons. Furthermore, the information provided in this report is for reference only and does not constitute any investment advice or decision-making basis. Investors should evaluate the associated risks independently and are responsible for their investment decisions.

主席致辭 Chairman's Address

天能動力國際有限公司

Tianneng Power International Limited

董事局主席：張天任

Chairman of the Board: Zhang Tianren

各位利益相關方：

當全球能源格局深刻變革、氣候行動步入關鍵十年，本集團作為中國新能源電池行業的重要參與者，始終將可持續發展置於戰略核心，以「綠色能源，驅動世界」為使命，踐行「守正創新、客戶為先、奮鬥擔當、相互成就」的核心價值觀。面對行業政策紅利釋放與全球能源結構轉型機遇，本集團結合行業政策導向與能源轉型趨勢，持續推進多元技術路線研發、循環經濟體系建設及全球化能力佈局，並將可持續發展要求進一步融入經營管理各環節，在經營韌性與戰略佈局方面持續取得進展。

To All Stakeholders,

As the global energy landscape undergoes profound transformation and climate action enters a critical decade, the Group, as a key participants in China's new energy battery industry, has always placed sustainable development at the core of its strategy. Guided by the mission of "Green Energy, Powering the World," we practice the core values of "Upholding Integrity and Innovation, Customer First, Striving with Commitment, and Mutual Achievement." Facing the opportunities of dividend release of industrial policies and global energy structure transformation, the Group, in combination with industrial policy guidance and energy transformation trend, continued to promote the research and development of diversified technology routes, the construction of circular economy system and the layout of globalization capabilities, and further integrated the requirements of sustainable development into all aspects of operation and management. Continue to make progress in business resilience and strategic layout.

築牢治理根基：以制度剛性守護企業信譽

本集團董事會（「董事會」）將 ESG 治理置於戰略核心，董事會作為集團 ESG 工作的最高責任與指揮機構，統籌推動本集團可持續發展治理體系建設，督導各業務單位及附屬公司結合實際落實相關管理要求。全面升級可持續發展治理體系，將 ESG 因素深度融入決策流程與風險管理。明確將氣候風險、供應鏈責任納入常規議程；強化「三道防線」風險管理體系，完善舉報制度及舉報人保護管理制度。我們堅信，唯有以透明治理贏得信任，方能行穩致遠。

Consolidating the Foundation of Governance: Safeguarding Corporate Reputation with Institutional Rigor

The board of directors of the group ("Board of Directors") places ESG governance at the core of its strategy. As the highest responsibility and command body for the group's ESG work, the Board of Directors coordinated and promoted the construction of the Group's sustainable development governance system, and supervised all business units and affiliated companies to implement relevant management requirements in combination with the actual situation. Comprehensively upgrade the sustainable development governance system, and deeply integrate ESG factors into decision-making process and risk management. It is clearly stipulated that climate risks and supply chain responsibilities are included in the regular agenda; the "three lines of defense" risk management system is strengthened; and the whistleblowing system and whistleblower protection management mechanism are improved. We firmly believe that only by winning trust through transparent governance can we achieve stable and long-term development.

踐行人本關懷：以溫度共築和諧價值

人才是天能最寶貴的財富，企業的根基在於人，企業的光輝在於回饋社會。我們深化以「村企共建」為核心的共同富裕模式，將產業優勢轉化為鄉村發展的內生動力，共創共享美好家園的實踐。我們視員工為集團的根基，堅持以人為本，聚焦機製革新、梯隊建設、素養提升、暖心聚力四大抓手，著力營造奮力向上，協同高效的良好氛圍。通過建立「天能學堂」，完善各項人才培養項目，全方位培養各部門的後備力量。建立健全的勞動保障體系，深化民主管理，創新員工反饋途徑，通過「天能心聲」小程序，保障員工聲音能更好地反饋。不斷建立健全的職業健康安全管理體系，保障每位員工的身心安全。

Practicing People-Oriented Care: Building Harmonious Value with Warmth

Talent is Tianneng's most valuable asset. The foundation of the enterprise lies in its people, and its brilliance lies in giving back to society. We deepen the common prosperity model centered on "village-enterprise co-construction," transforming industrial advantages into endogenous drivers for rural development and creating and sharing the practice of a better homeland. We regard employees as the foundation of the Group, adhere to a people-oriented approach, and focus on four key areas: mechanism innovation, echelon construction, competency enhancement, and heart-warming cohesion, striving to create an atmosphere of striving upwards, collaboration, and high efficiency. By establishing "Tianneng Academy" and improving various talent development programs, we comprehensively cultivate reserve forces for all departments. We have established and improved the labor security system, deepened democratic management, innovated employee feedback channels, and ensured that employees' voices are better heard through the "Tianneng Voice" mini-program. We continuously establish and improve the occupational health and safety management system to ensure the physical and mental safety of every employee.

深耕綠色循環：以創新驅動低碳未來

面對氣候挑戰，我們以行動踐行「雙碳」承諾，通過成立實體化的能碳與環安管理中心，系統性地推動全生命週期的碳減排，步步壓實減排主體責任，堅持電池循環體系優化創新，獲得國際「零碳工廠」認可，從高效的數字化智造到廢棄電池的循環利用，天能用實際行動詮釋了綠色循環內涵，為行業發展提供「天能樣板」。

展望 2026，天能將持續深化「管治—社會—環境」三位一體可持續發展體系：推進「無廢集團」建設，強化 TCFD 框架下的氣候韌性管理，以更高標準對標國際 ESG 準則，並持續完善氣候相關風險與機遇識別、評估及管理。我們誠摯感謝全體員工的奮鬥擔當、客戶的長期信賴、合作夥伴的協同共進，以及監管機構與社會各界的指導支持。

前路雖遠，行則必至。天能願與您攜手，以科技點亮綠色未來，以責任共築可持續世界！

Deepening the Green Cycle: Innovating for a Low-Carbon Future

Facing climate challenges, we fulfill our "Dual-Carbon" commitments with action. By establishing a substantive Energy, Carbon, and Environment, Health and Safety Management Center, we systematically promote carbon emission reduction throughout the entire lifecycle, step by step consolidating the responsibility for emission reduction. We persist in optimizing and innovating the battery recycling system, gaining international "Zero-Carbon Factory" recognition. From efficient digital manufacturing to the recycling of waste batteries, Tianneng interprets the essence of the green cycle with practical actions, providing a "Tianneng Model" for industry development.

Looking ahead to 2026, Tianneng will continue to deepen its "Governance-Social-Environment" trinity sustainable development system: setting a carbon peak pathway before 2030, advancing the construction of a "Zero-Waste Group," strengthening climate resilience management under the TCFD framework, benchmarking against international ESG standards with higher requirements, and continue to improve the identification, assessment and management of climate related risks and opportunities. We sincerely thank all employees for their striving commitment, customers for their long-term trust, partners for their collaborative progress, and regulatory agencies and all sectors of society for their guidance and support.

Though the road ahead is long, perseverance will lead us there. Tianneng is willing to join hands with you to light up a green future with technology and build a sustainable world with responsibility!

關於本集團 About the Group

集團簡介 Group Profile

本集團創立於 1986 年，2007 年於香港聯合交易所主板上市（股份代號：00819.HK），總部設於中華人民共和國（「中國」）。本集團圍繞動力與能源應用需求，構建了以鉛蓄電池為基礎、多技術路線協同發展的業務體系，致力於為客戶提供多元化電池產品及能源解決方案，涵蓋研發、製造、銷售、回收、再生利用及相關服務。

本集團鉛蓄電池產品廣泛應用於電動輕型車動力領域，並延伸至備用電源、汽車電池及特種工業動力電池等多個細分領域，在相關應用場景中積累了穩定的產品與客戶基礎。在持續完善現有業務體系的同時，本集團結合不同應用場景和技術路徑，積極佈局鋰離子電池業務，並開展鈉離子電池、固態電池及氫燃料電池等領域的技術研發與產品儲備；同時積極拓展廢舊鉛蓄電池及廢舊鋰離子電池的回收再生業務，推動電池循環產業協同發展。

在夯實本土業務的基礎上，本集團穩步推進國際化發展理念，持續提升綜合競爭力，致力實現長期、穩健及可持續的發展。「守正創新 客戶為先 奮鬥擔當 相互成就」是本集團的核心價值觀，以奮鬥者為本，以價值為導向，強化責任擔當，堅持創新驅動，不斷激發內生動力，提升核心競爭力，實現持續高質量發展，為客戶創造價值，為員工提供平臺，以實際行動回報股東，回饋社會。

The Group was founded in 1986 and is listed on the Main Board of The Stock Exchange of Hong Kong in 2007 (Stock Code: 00819. HK), with its headquarters in the People's Republic of China ("China"). Centered on power and energy application needs, the Group has built a business system based on lead-acid batteries and coordinated development across multiple technology routes, committed to providing customers with diversified battery products and energy solutions, covering R&D, manufacturing, sales, recycling and related services.

The Group's lead-acid battery products are widely used in the electric light vehicle power sector and extended to various segmented fields such as backup power, automotive batteries, and special industrial power batteries, accumulating a stable product and customer base in relevant application scenarios. While continuously improving its existing business system, the Group actively deploys its lithium-ion ("Li-ion") battery business based on different application scenarios and technological paths, and conducts technology R&D and product reserves in fields such as sodium-ion batteries, solid-state batteries, and hydrogen fuel cells. At the same time, it actively expands the recycling and regeneration business of waste lead-acid batteries and waste lithium-ion batteries, promoting the coordinated development of the battery recycling industry.

On the basis of consolidating its domestic business, the Group steadily advances its internationalization idea, continuously enhances its comprehensive competitiveness, and strives to achieve long-term, stable and sustainable development." Upholding Integrity and Innovation, Customer First, Striving with Commitment, and Mutual Achievement" are the core values of the Group. Based on strivers and oriented by value, we strengthen responsibility and commitment, adhere to innovation-driven development, continuously stimulate endogenous motivation, enhance core competitiveness, achieve sustained high-quality development, create value for customers, provide a platform for employees, and repay shareholders and give back to society with practical actions.

集團業務 Group Business

天能作為中國新能源電池行業的重要參與者，始終將可持續發展理念深度融入業務基因。本集團堅持構建新質生產力，聚焦兩大核心板塊，系統推進綠色低碳轉型：

As an important participant in China's new energy battery industry, Tianneng has always deeply integrated the concept of sustainable development into its business DNA. The Group insists on building new quality productive forces, focusing on two core sectors, and systematically promoting green and low-carbon transformation:

高端環保電池 High-End Eco-Friendly Batteries

高端環保電池是本集團基於持續研發與創新工藝打造的密封型免維護鉛蓄電池系列產品。鉛蓄電池在性能與成本等方面具備綜合優勢，本集團相關產品涵蓋環保出行動力電池、備用電源、汽車電池及特種工業動力電池等類別，廣泛應用於電動輕型車、通信基站、數據中心、汽車及特種工業車輛等領域。基於統一技術平臺與精益製造體系，本集團優化產品性能並拓展應用場景，鞏固在多元化市場中的整體競爭力。

High-end eco-friendly batteries are a series of sealed, maintenance-free lead-acid battery products created by the Group based on continuous R&D and innovative processes. Lead-acid batteries possess comprehensive advantages in performance and cost. The Group's related products cover categories such as eco-friendly mobility power batteries, backup power, automotive batteries, and special industrial power batteries, widely used in fields such as electric light vehicles, communication base stations, data centers, automobiles, and special industrial vehicles. Based on a unified technology platform and lean manufacturing system, the Group optimizes product performance and expands application scenarios, consolidating its overall competitiveness in diversified markets.

可循環產業 Circular Economy Industry

我們構建「回收網絡—再生工廠—材料回用」全鏈條循環經濟體系，在中國運營多家廢舊電池循環利用產業園。廢舊鉛蓄電池中鉛、硫酸、塑殼等材料回收率超 99%、廢舊鋰離子電池中鋰材料回收率超 94%；年處置廢舊電池超 100 萬噸，顯著降低原生資源開採壓力與環境負荷，憑藉工信部「梯次利用」與「再生利用」雙白名單資質，通過與整車廠、電池製造商、保險公司及汽車拆解企業合作，並完成首批再生黑粉原料海外引進，持續完善回收渠道。

We have built a full-chain circular economy system of "Collection Network-Regeneration Plants-Material Reuse," and operated a number of waste battery recycling industrial parks in China. The recovery rate of lead, sulfuric acid, plastic shell and other materials in waste lead-acid batteries exceeded 99%, and the recovery rate of lithium materials in waste lithium-ion batteries exceeded 94%; The annual disposal of waste batteries is more than 1million tons, significantly reducing the pressure on the exploitation of primary resources and environmental load. Relying on the qualification of the "Echelon utilization" and "recycling" double white list of the Ministry of industry and information technology, through cooperation with vehicle manufacturers, battery manufacturers, insurance companies and automobile disassembly enterprises, and completing the overseas introduction of the first batch of renewable black powder raw materials, the recycling channels are continuously improved.

新能源電池 New Energy Batteries

天能系統佈局鋰離子電池、固態電池（含固液混合與全固態）、鈉離子電池及氫燃料電池四大技術路線。鋰離子電池具備電芯研發至系統集成的垂直能力，產品廣泛應用於儲能及動力領域，並向新興市場拓展；固態電池穩步推進研發與商業化探索；鈉離子電池聚焦可落地應用場景；氫燃料電池依託全鏈條研發體系，持續夯實技術基礎。

Tianneng systematically deploys four major technology routes: lithium-ion batteries, solid-state batteries (including solid-liquid hybrid and all-solid-state), sodium-ion batteries, and hydrogen fuel cells. Lithium-ion batteries possess vertical integration capabilities from cell R&D to system integration, with products widely used in the energy storage and power sectors, while expanding into emerging markets. Solid-state batteries are steadily advancing in R&D and commercialization exploration. Sodium-ion batteries focus on practical application scenarios. Hydrogen fuel cells rely on a full-chain R&D system to continuously consolidate the technological foundation.

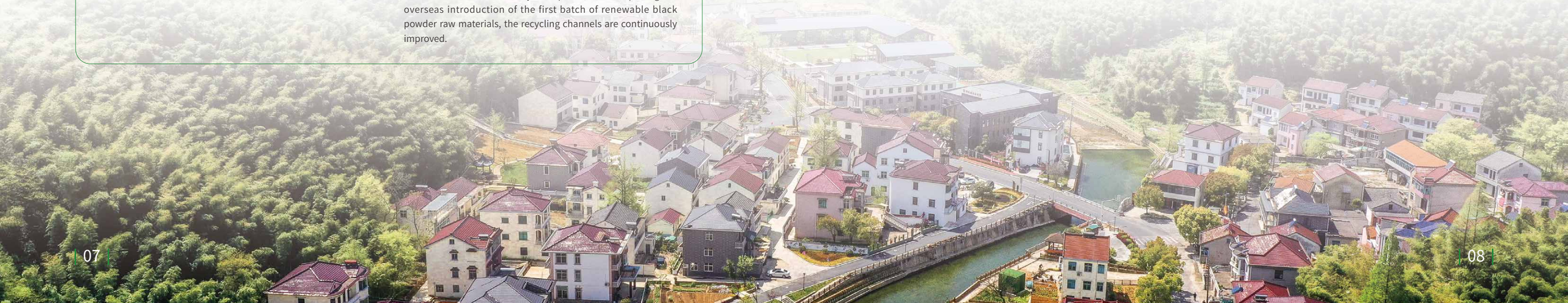
本集團以「技術驅動綠色轉型」為核心，持續推動產品全生命週期環境管理，將業務發展與聯合國可持續發展目標（SDGs）緊密銜接，為全球綠色低碳轉型貢獻天能力量。

With "Technology Driving Green Transformation" at its core, the Group continuously promotes product lifecycle environmental management, closely aligning its business development with the United Nations Sustainable Development Goals (SDGs) to contribute Tianneng's strength to the global green and low-carbon transition.

2025 年天能大事記 2025 Tianneng Major Events

2025 年，是天能踐行「科技創新 + 綠色轉型」雙輪驅動戰略的關鍵之年。面對行業政策紅利釋放與全球能源結構轉型機遇，本集團緊抓新國標落地、以舊換新等政策契機，深化「鉛鋰固鈉氫」技術佈局，加速全球化與循環經濟體系建設，在營收結構優化、儲能業務突破、國際化拓展及 ESG 實踐等方面取得顯著成果，為可持續高質量發展奠定堅實基礎。

2025 is a crucial year for Tianneng to implement the dual-wheel drive strategy of "Technological Innovation+Green Transformation." Facing opportunities from the release of industry policy dividends and the transformation of the global energy structure, the Group has seized policy opportunities such as the implementation of new national standards and trade-in schemes, deepened its "Lead-acid, Li-ion, Hydrogen, Sodium-ion, Solid-state" technology layout, accelerated the construction of globalization and circular economy systems, and achieved significant results in revenue structure optimization, energy storage business breakthroughs, international expansion, and ESG practices, laying a solid foundation for sustainable, high-quality development.



2025 年 1 月 January 2025

764	富联标展科技（河南）有限公司	河南省工业和信息化厅
765	讯飞通达中原耐火技术有限公司	河南省工业和信息化厅
766	广济药业（孟州）有限公司	河南省工业和信息化厅
767	海宏（豫州）新能源科技有限公司	河南省工业和信息化厅
768	河南光远新材料股份有限公司	河南省工业和信息化厅
769	河南华伟饲料有限公司	河南省工业和信息化厅
770	河南华英禧徕多食品有限公司	河南省工业和信息化厅
771	河南嘉晨智能控制股份有限公司	河南省工业和信息化厅
772	河南晶能电源有限公司	河南省工业和信息化厅
773	河南均美铝业有限公司	河南省工业和信息化厅
774	河南科锐思门窗有限公司	河南省工业和信息化厅

1 月 23 日，中國工業和信息化部（「工信部」）公佈國家級綠色工廠名單，河南晶能電源公司入選。

On January 23, the Ministry of Industry and Information Technology of China("MIIT") announced the list of National Level Green Factories. Henan Jingneng Power Source Co., Ltd. was selected.

2025 年 3 月 March 2025

3 月 31 日，本集團與長興縣新川村村企共建項目上榜全國“萬企興萬村”行動首批優秀案例。

On March 31, the village-enterprise co-construction project between Tianneng Holdings Group and Xinchuan Village in Changxing County was selected as one of the first batch of outstanding cases in the national "Ten Thousand Enterprises Revitalize Ten Thousand Villages" initiative.

2025 年 4 月 April 2025

4 月 15 日，經過嚴格的國際標準認證，天能首家「零碳工廠」正式誕生，為行業可持續發展提供了實踐樣板。

On April 15, following rigorous international standard certification, Tianneng's first "Zero-Carbon Factory" was officially established, providing a practical model for the industry's sustainable development.

2025 年 5 月 May 2025

5 月 25 日，安徽用戶側儲能項目——天能馬鞍山和縣儲能電站正式投運，作為「綠電 + 綠廠」模式的標桿，顯著提升了區域電網的調節能力與綠色用能水平。

On May 25, Tianneng's Ma'anshan He County Energy Storage Power Station, the user-side energy storage project in Anhui Province, was officially put into operation. As a benchmark of the "Green Power+Green Factory" model, it significantly enhanced the regional power grid's regulation capacity and the level of green energy utilization.

2025 年 6 月 June 2025

6 月 6 日，集團在土耳其伊斯坦布爾的辦事處正式啟用，為深耕歐亞市場、服務全球客戶開闢了新支點。

On June 6, the Group office in Istanbul, Turkey, was officially inaugurated, opening a new fulcrum for deepening its presence in the Eurasian market and serving global customers.

6 月 29 日，集團通過《創新管理——知識產權管理指南（ISO 56005）》國際標準認證，成為新能源行業首批獲得此認證的企業之一，為創新驅動建立了國際化的管理體系保障。

On June 29, the Group passed the *International Standard certification of Innovation Management – Intellectual Property Management Guidelines* (*ISO 56005*), becoming one of the first enterprises in the new energy industry to obtain this certification, establishing an international management system guarantee for innovation-driven development.

2025 年 7 月 July 2025

本集團入選「2025 浙商 ESG 經典 100」，彰顯集團 ESG 擔當。

Tianneng Holdings Group was selected for the "2025 Zheshang ESG Classic 100," demonstrating the Group's ESG commitment.

7 月 18 日，浙江省湖州市「綠水青山就是金山銀山」理念提出 20 週年群眾性宣傳月系列活動啟動儀式舉行，董事局主席張天任獲得「綠色低碳先鋒」水晶紀念章。

On July 18, the launch ceremony for the mass publicity month series of activities commemorating the 20th anniversary of the "Lucid waters and lush mountains are invaluable assets" concept in Huzhou City, Zhejiang Province was held. Chairman Zhang Tianren received the "Green and Low-Carbon Pioneer" crystal commemorative medal.

7 月 30 日，集團與徐州合創新能源有限公司聯手打造的山東索力得 10MW/20MWh 工商業儲能電站竣工。天能智慧能源公司、徐州合創共同建設山東肥城最大工商業儲能標桿項目。

On July 30, the Shandong Solid 10MW/20MWh Industrial and Commercial Energy Storage Power Station, jointly built by the Group and Xuzhou Hechuang, was completed. Tianneng Smart Energy Company and Xuzhou Hechuang New Energy Co., Ltd. jointly constructed the largest industrial and commercial energy storage benchmark project in Feicheng, Shandong.

2025 年 8 月 August 2025

8 月 18 日，天能鈉離子電池汽車電池新品上市，多型號主推新品備受關注。

On August 18, Tianneng's new sodium-ion battery products for automotive batteries were launched, with the main new products attracting significant attention.

2025 年 9 月 September 2025

9 月 2 日，工信部公佈 5G 工廠名錄，天能新能和天能馬鞍山獲評「國家級 5G 工廠」。

On September 2, the Ministry of Industry and Information Technology published the 5G Factory Directory, with Tianneng New Energy and Tianneng Ma'anshan being recognized as "National Level 5G Factories."

9 月 18 日，集團自主研發的 48V150AH 磷酸鐵鋰電池項目規模化應用，榮獲中興通訊最高評級「S 級供方」及「最佳交付支持獎」稱號。

On September 18, the Group's independently developed 48V150AH lithium iron phosphate battery project achieved large-scale application, earning ZTE Corporation's highest rating of "S-Level Supplier" and the "Best Delivery Support Award."

9 月 30 日，天能電池集團股份有限公司獲得權威信用評級機構東方金誠出具的信用評級報告，確認其主體信用等級為 AAA，評級展望為「穩定」。

On September 30, a Tianneng Battery Group co.,Ltd received a credit rating report from authoritative credit rating agency Orient Golden Credit Rating International, confirming its issuer credit rating as AAA with a "stable" outlook.

2025 年 10 月 October 2025

10 月 10 日，IECTC21 鈉離子電池新提案國際標準研討會上，集團國際標準提案獲 17 個 P 成員國全票通過。

On October 10, at the IECTC21 International Standards Seminar on New Proposals for Sodium-ion Batteries, the Group's international standard proposal was unanimously approved by all 17 P-member countries.

10 月 17 日，天能孝豐 100MW/200MWh 智慧低碳綜合能源項目在浙江省湖州市安吉縣開工。該項目是集「綠儲 + 綠廠 + 綠源 + 綠谷 + 綠網」於一體的綜合能源示範項目。

On October 17, the Tianneng Xiaofeng 100MW/200MWh intelligent low-carbon comprehensive energy project commenced in Anji County, Huzhou City, Zhejiang Province. This project is a comprehensive energy demonstration initiative integrating "green storage+green factory+green source+green valley+green grid."

2025 年 11 月 November 2025

11 月 9 日，集團受邀出席尼日利亞智能農業貨運項目發佈會，與當地 2 家企業達成合作意向，照亮尼日利亞「豐收路」。

On November 9, the Group was invited to attend the Nigeria Smart Agriculture Cargo Project Launch Event and reached cooperation intentions with two local enterprises, illuminating "path to harvest" in Nigeria.

2025 年 12 月 December 2025

12 月 13 日，越南基地二期投產，集團深化全球佈局。該基地為集團海外首座自主投資建設的一體化產業基地。

On December 13, Phase II of the Vietnam Base was put into operation, further deepening the Group's global layout. This base is the Group's first overseas integrated industrial base independently invested in and constructed

12 月 18 日，從海外引進的首批鋰離子電池再生黑粉原料通過海關監管與驗放，順利運抵浙江天能新材料公司。這是今年 8 月進口新規發佈實施後天能首批自主進口鋰電再生黑粉原料，為推動天能全球化佈局邁出堅實一步。

On December 18, the first batch of recycled black mass raw materials for lithium-ion batteries imported from abroad passed customs supervision and inspection and were successfully transported to Zhejiang Tianneng new materials Co., Ltd. This is the first batch of independently imported Li-ion battery recycled black powder raw materials after the issuance and implementation of the new import regulations in August this year, which is a solid step to promote the global layout of Tianneng.

12 月 25 日，中國有色金屬工業協會發佈重磅榜單，集團的廢鋰循環項目一舉摘得有色金屬工業科學技術一等獎，彰顯了集團在資源循環領域的硬核科技實力。

On December 25, the China Nonferrous Metals Industry Association released a major list, and the Group's waste Li-ion battery recycling project won the first prize for nonferrous metals industry science and technology, highlighting the Group's strong technological capabilities in the field of resource recycling.

天能氫能項目成功入選浙江省綠色低碳技術推廣目錄，為清潔能源轉型之路錨定了技術標桿。

Tianneng's hydrogen energy project was successfully included in Zhejiang Province's green and low-carbon technology promotion directory, setting a technical benchmark for the clean energy transformation path.

2025 年主要榮譽 2025 Main Honors

3 月 7 日 March 7

2025 年香港可持續發展創新與技術獎入圍者

Shortlisted participant in the 2025 Hong Kong Sustainable Development Innovation and Technology Awards

全球可持續發展規劃師學會、創新科技署、香港品質保證局等

Global Sustainable Development Planner Association, Innovation and Technology Commission, Hong Kong Quality Assurance Agency, etc.

6 月 7 日 June 7

HKIRA 投資者關係卓越獎

Certificate of Excellence

香港投資者關係協會

Hong Kong Investor Relations Association

12 月 30 日 December 30

卓越價值創造獎

Award for Excellence in Value Creation

IRSC 上市公司跨境路演平臺

IRSC Listed Companies Cross-Border Roadshow Platform

12 月 30 日 December 30

卓越資本市場溝通獎

Award for Excellence in Capital Market Communication

IRSC 上市公司跨境路演平臺

IRSC Listed Companies Cross-Border Roadshow Platform

4 月 23 日 April 23

2025 領先僱主

2025 Leading Employer

Institute of Research & Data Aggregation

3 月 4 日 March 4

儲能影響力電池供應商 / 系統集成商

Influential Energy Storage Battery Supplier/System Integrator

北極星電力網

Polaris Power Grid

5 月 21 日 May 21

最受機構青睞（科創板）浙江上市公司 TOP10 榜單

Most Favored by Institutions (STAR Market) Top 10 List of Zhejiang Listed Companies

證券時報社、浙江大學金融研究院

Securities Times, Academy of Financial Research, Zhejiang University

9 月 26 日 September 26

品牌創新銀獎

Brand Innovation Silver Award

科睿國際創新節組委會

Organizing Committee of Kerui International Innovation Festival

11 月 9 日 November 9

最佳交付獎

Best Delivery Award

中興通訊

ZTE Corporation

11 月 20 日 November 20

具身智能機器人先鋒 TOP30- 卓越產品獎

Top 30 Embodied AI Robot Pioneers-Outstanding Product Award

焉知機器人

Yanzhi Robot

10 月 11 日 October 11

創新力企業獎

Innovative Enterprise Award

SNEC 組委會

SNEC Organizing Committee

10 月 11 日 October 11

儲能電池十大供應商

Top 10 Energy Storage Battery Suppliers

國能能源研究院

National Energy Research Institute

11 月 25 日 November 25

2025 年鋰電再生循環利用先鋒獎

2025 Li-ion Battery Recycling and Reuse Pioneer Award

富寶鋰電產業年會

Fubao Li-ion Battery Industry Annual Conference

12 月 December

2025 年浙江省生態環境十大科技創新獎

2025 Zhejiang Province Top Ten Scientific and Technological Innovation Awards in Ecological Environment

浙江省環境科學學會

Zhejiang Society For Environmental Sciences

11 月 2 日 November 2

人民企業社會責任案例

People's Enterprise Social Responsibility Case

人民網

People's Daily

11 月 6 日 November 6

鈉電池電芯技術領導品牌

Sodium Battery Cell Technology Leadership BrandListed Companies

起點鈉電

Starting Point Sodium Battery

12 月 December

2025 年電池回收再利用優質企業

2025 Outstanding Enterprise in Battery Recycling and Reuse

2025 新能源產業年會

2025 New Energy Industry Annual Conference

12 月 12 日 December 12

高工金球獎 - 年度市場開拓

GGII Golden Globe Award-Annual Market Development

高工鋰電

GGII Li-ion Battery

可持續
發展戰略

Sustainability Strategy

16 和平、正義與健全的司法

17 促進目標實現之全球夥伴關係

本集團始終將可持續發展置於企業戰略核心，秉持「綠色能源，驅動世界」的使命，系統性地將環境、社會及管治（ESG）理念深度融入治理架構與業務發展全週期，將 ESG 理念深度融入企業戰略規劃核心，構建「科技、市場、資本、雙碳」新四輪驅動與「數智化、平臺化、生態化」新三環支撐的可持續發展框架。

The Group has always placed sustainable development at the core of its corporate strategy, adhering to the mission of "Green Energy, Powering the World." We systematically integrate Environmental, Social, and Governance (ESG) principles deeply into the corporate governance structure and the entire business development lifecycle. ESG concepts are embedded into the core of the enterprise strategic plan, and building a sustainable development framework supported by the new four-wheel drive of "Technology, Market, Capital, Dual-Carbon" and the new three-ring support of "Digital Intelligence, Platformization, Ecologization."

可持續發展治理體系 Sustainable Development Governance System

董事會聲明 Board Statement

作為董事會，我們鄭重聲明：可持續發展是本集團實現長期價值創造與基業長青的核心基石。董事會將環境、社會及管治（ESG）理念深度融入公司戰略決策與治理全過程，嚴格遵循聯交所頒布的《ESG 報告守則》要求，並積極對標 TCFD 框架與國際可持續發展準則。

As the Board of Directors, we solemnly declare that sustainable development is the core cornerstone for the Group to achieve long-term value creation and enduring success. The Board of Directors deeply integrates Environmental, Social and Governance (ESG) principles into the Company's strategic decision-making and the entire governance process, strictly complies with the requirements of the *ESG Reporting Code* Published by the Stock Exchange, and actively benchmarks against the TCFD framework and international sustainability standards.

本集團董事會承擔 ESG 策略制定與監督的最高責任，將可持續發展深度融入公司治理核心。董事會定期審議 ESG 戰略規劃、重大環境社會風險及績效表現，明確將氣候變化、資源循環、供應鏈責任等 ESG 議題納入董事會常規議程。

The Board of Directors of the Group assumes the highest responsibility for ESG strategy formulation and oversight, embedding sustainable development deeply into the core of corporate governance. The Board of Directors regularly reviews ESG strategic plans, significant environmental and social risks, and performance, explicitly incorporating ESG issues such as climate change, resource circulation, and supply chain responsibility into the regular agenda of the Board of Directors.

我們承諾持續強化治理透明度，完善風險預警與供應鏈責任管理機制，深化與股東、客戶、員工、社區及監管機構的對話。董事會將一如既往地肩負受託責任，以負責任的領導力引領綠色轉型，為全體利益相關方創造共享價值，共築清潔低碳、安全高效的能源未來。

We are committed to continuously enhancing governance transparency, improving risk warning and supply chain responsibility management mechanisms, and deepening dialogue with shareholders, customers, employees, communities, and regulatory authorities. The Board of Directors will, as always, uphold its fiduciary duties and lead the green transition with responsible leadership, creating shared value for all stakeholders and jointly building a clean, low-carbon, safe, and efficient energy future.

組織架構與責任體系 Organizational Structure and Responsibility System

為保障 ESG 工作有效落地，本集團已初步建立三級管治體系架構「董事會—ESG 管治小組—執行層」。未來，本集團將持續完善 ESG 管理體系，進一步推動落實 ESG 相關目標的動態追蹤與實時更新機制，切實提高集團的 ESG 治理效果與管理水平。

To ensure the effective implementation of ESG work, the Group has initially established a three-tier governance structure:" Board of Directors – ESG Governance Group – Executive Level." Moving forward, the Group will continue to improve the ESG management system, further promote the implementation of dynamic tracking and real-time update mechanisms for ESG-related targets, and effectively enhance the Group's ESG governance effectiveness and management level.

決策層 Decision-Making Tier	董事會 Board of Directors	對集團 ESG 重要議題進行審議和決策 Reviews and makes decisions on significant ESG issues for the Group.
管理層 Management Tier	ESG 管治小組 ESG Governance Group	負責擬定並執行具體的環境、社會及治理（ESG）計劃，確保實施有效的管理 Responsible for formulating and executing specific environmental, social, and governance (ESG) plans, ensuring the implementation of effective management.
執行層 Execution Tier	子公司及事業部 Subsidiaries and Business Units	負責溝通、推進、落實 ESG 工作的具體措施，跟蹤管理 ESG 工作目標的完成情況。董事會辦公室為牽頭部門，負責組織協調各相關部門開展 ESG 工作 Responsible for communicating, promoting, and implementing specific ESG measures, and tracking the completion of ESG work objectives. The Board of Directors Office is the leading department, responsible for organizing and coordinating relevant departments to carry out ESG work.

利益相關方參與 Stakeholder Engagement

本集團深信，與利益相關方建立開放、透明、互信的對話機制，是推動可持續發展與創造共享價值的關鍵。董事會將利益相關方參與納入治理核心，通過系統化識別、分層級溝通與反饋閉環管理，確保各方訴求得到充分聆聽與有效回應。2025 年，本集團圍繞可持續發展實踐，與內外部利益相關方開展了深入交流，並提供以下溝通渠道，誠邀社會各界攜手共促可持續發展，實現價值共享。

The Group firmly believes that establishing open, transparent, and mutually trusting dialogue mechanisms with stakeholders is key to promoting sustainable development and creating shared value. The Board of Directors incorporates stakeholder engagement into the core of corporate governance, ensuring that the demands of all parties are fully heard and effectively responded to through systematic identification, tiered communication, and closed-loop feedback management. In 2025, the Group engaged in in-depth exchanges with internal and external stakeholders regarding its sustainable development practices and provides the following communication channels, inviting all sectors of society to jointly promote sustainable development and achieve shared value.

利益相關方 Stakeholders	關注議題 Topics of Concern	溝通渠道 Communication Channels
政府與監管機構 Government and Regulatory Authorities	合規運營 Compliance Operation 環境合規管理 Environmental Compliance Management 資源節約與能源利用 Resource Conservation and Energy Utilization 排放物管理 Emission Management 應對氣候變化 Addressing Climate Change 生態系統和多樣性保護 Biodiversity and Ecosystem Protection 循環經濟 Circular Economy	監督檢查 Supervision and Inspection 政策執行 Policy Implementation 來訪接待 Reception and Visits 合規報告 Compliance Report 環境管理制度 Environmental Management System 依法納稅 Tax Payment in Accordance with Laws 響應中國戰略 Responding to China's Strategies
投資者與股東 Investors and Shareholders	公司治理 Corporate Governance 財務績效 Financial Performance 合規運營 Compliance Operation 利益相關方溝通 Stakeholder Communication 可持續發展治理 Sustainable Development Governance 風險管理 Risk management	股東會 General Meeting of Shareholders 信息披露 Information Disclosure 公司年報 Company Annual Report 投資者溝通郵箱 Investor Communication Email
員工 Employees	合規雇傭 Compliant Employment 勞工權益保障 Labor Rights Protection 員工培訓與發展 Employee Training and Development 職業健康與安全 Occupational Health and Safety 員工關懷與活動 Employee Care and Activities	工會活動 Trade Union Activities 職工代表大會 Workers' Representative Congress 員工座談會 Staff Symposium 日常交流 Daily Communication
客戶 Customers	客戶服務保障 Customer Service Assurance 產品質量管理 Product Quality Management 信息安全與私隱保護 Information Security and Privacy Protection	客戶滿意度調查 Customer Satisfaction Survey 行業交流展會或論壇 Industry Exchange Exhibitions or Forums 400 客戶服務熱線 400 Customer Service Hotline
供應商及其他合作夥伴 Suppliers and Other Partners	可持續供應鏈 Sustainable Supply Chain 平等對待中小企業 Fair Treatment of Small and Medium-sized Enterprises 商業道德與反貪污 Business Ethics and Anti-Corruption 行業合作與發展 Industry Cooperation and Development	供應商審核 Supplier Audit 實地考察 Site Visit 日常交流 Daily Communication 合同執行 Contract Execution
社區與公眾 Community and the Public	社會貢獻 Social Contribution 鄉村振興 Rural Revitalization 生態系統和生物多樣性保護 Ecosystem and Biodiversity Protection	社區日常溝通 Daily Community Communication 公益活動 Charitable Activities 支持鄉村振興 Support for Rural Revitalization 環境管理制度 Environmental Management System
行業協會及其他非政府組織 Industry Associations and Other Non-Governmental Organizations	合規運營 Compliance Operation 行業合作與發展 Industry Cooperation and Development 創新驅動 Innovation-Driven Growth	行業展會與論壇 Industry Exhibitions and Forums 標準編寫與制定 Standard Compilation and Formulation 信息披露 Information Disclosure

案例 Case

舉行大型投資者調研活動，吸引 20 餘家頭部機構積極參與

Tianneng Holds Major Investor Research Activity, Attracting Active Participation from Over 20 Leading Institutions

11 月 21 日，本集團在浙江總部舉辦投資者調研活動，投資者實地參觀了天能鋰電智能製造基地，並與高管團隊深入交流。活動中，天能全面闡釋了在儲能與新型電池領域的戰略佈局與發展實踐，系統展示了集團從「全球鉛蓄電池製造標桿」向「新能源科技解決方案創新者」與「循環經濟產業平臺構建者」的戰略升級路徑。此次大型調研活動，有效提升了本集團的資本市場形象。隨著多業務協同的深入推進，本集團的成長動能與可持續發展韌性將持續增強。

On November 21, the Group held an investor research activity at its Zhejiang headquarters. Investors visited the Tianneng Li-ion battery intelligent manufacturing base and had in-depth exchanges with the senior management team. During the event, Tianneng comprehensively explained the strategic layout and development practice in the field of energy storage and new batteries, and systematically displayed the strategic upgrading path of the Group from "global lead-acid battery manufacturing benchmark" to "innovator of new energy technology solutions" and "builder of circular economy industry platform". This large-scale research activity has effectively improved the Group's capital market image. With the in-depth promotion of multi business collaboration, the Group's growth momentum and sustainability will continue to increase.

雙重重要性評估 Double Materiality Assessment

2025 年，本集團為更好地回應利益相關方的期望和訴求，更好地了解其關切問題，從「財務重要性」和「影響重要性」兩個維度，通過外部對標確定初始議題，並採用內部專家對「財務重要性」議題進行評估以及所有利益相關方對「影響重要性」通過問卷調研形式統計的結合，開展全面的利益相關方分析，了解其對集團在 ESG 方面的期望。

In 2025, to better respond to stakeholder's expectations and requirements and better understand their concerns, the Group conducted a comprehensive stakeholder analysis. This involved assessing from two dimensions:"financial materiality" and "impact materiality." Initial topics were identified through external benchmarking, and internal experts evaluated "financial materiality," while all stakeholders contributed to "impact materiality" statistics via questionnaire surveys. This process aimed to understand their expectations regarding the Group's ESG performance.

重要性議題分析流程 Material Issue Analysis Process

按照「分析、識別、評估、審核」的評估步驟，有序開展相關方調研工作，系統地識別集團在 ESG 方面所面臨的關鍵議題及未來發展方向，並從「財務重要性」與「影響重要性」兩個維度對 ESG 議題進行評估，具體流程如下：

Following the assessment steps of "Analysis, Identification, Assessment, Review," we systematically carried out stakeholder research, identifying key ESG issues facing the Group and future development directions. ESG topics were evaluated from the two dimensions of "financial materiality" and "impact materiality." The specific process is as follows:

分析 Analysis

通過研究分析集團的監管背景、商業模式、發展戰略、運營情況等，結合同行對標等方式，識別出集團的利益相關方。

By studying and analyzing the Group's regulatory background, business model, development strategy, operational situation, etc., combined with methods such as peer benchmarking, we identified the Group's stakeholders.

識別 Identification

通過政策分析、行業調研、同業對標、利益相關方溝通與調研等方式，識別與集團相關的重大趨勢，結合政策、資本市場關註要點，識別重要性議題。

Through policy analysis, industry research, peer benchmarking, and stakeholder communication and surveys, we identified major trends relevant to the Group and determine material topics by integrating policy requirements and key concerns of the capital market.

評估 Assessment

通過向利益相關方發放重要性議題評估問卷及內部專家評審等方式對潛在議題進行評估，並根據結果， 繪製重大性議題矩陣。

Through methods such as distributing materiality assessment questionnaires to stakeholders and conducting internal expert reviews, we evaluated potential topics and, based on the results, constructed a materiality matrix.

審核 Review

集團管理層對重要性議題分析結果進行審閱，確認本報告重點披露內容及未來 ESG 管理的工作目標及實施計劃。

The Group's management reviewed the analysis results of material topics, confirming the key disclosure content of this report and future ESG management work objectives and implementation plans.

雙重重要性議題矩陣圖 Double Materiality Issue Matrix

匯總議題的影響重要性和財務重要性評估結果，形成雙重重要性議題矩陣：

The assessment results of impact materiality and financial materiality for each topic were aggregated to form the Double Materiality Issue Matrix.

2025 年雙重重要性議題矩陣圖

2025 Double Materiality Issue Matrix

環境議題 Environmental Issues		
1	應對氣候變化	Addressing Climate Change
2	排放物管理	Emission Management
3	資源節約與能源利用	Resource Conservation and Energy Utilization
4	循環經濟	Circular Economy
5	清潔技術機遇	Clean Technology Opportunities
6	環境合規管理	Environmental Compliance Management
7	生態系統和生物多樣性保護	Ecosystem and Biodiversity Protection
社會議題 Social Issues		
8	可持續供應鏈	Sustainable Supply Chain
9	產品質量管理	Product Quality Management
10	客戶服務保障	Customer Service Assurance
11	合規僱傭	Compliant Employment
12	員工培訓與發展	Employee Training and Development
13	職業健康與安全	Occupational Health and Safety
14	員工關懷與活動	Employee Care and Activities
15	勞工權益保障	Labor Rights Protection
16	合作與交流	Collaboration and Exchange
17	創新研發	Innovation and R&D
18	知識產權保護	Intellectual Property Protection
19	社區參與	Community Engagement
20	鄉村振興	Rural Revitalization
21	信息安全與隱私保護	Information Security and Privacy Protection
管治議題 Governance Issues		
22	公司治理	Corporate Governance
23	ESG 治理	ESG Governance
24	商業道德與反貪污	Business Ethics and Anti-Corruption
25	風險管理	Risk management
26	利益相關方溝通	Stakeholder Communication

2025 年雙重重要性議題矩陣圖

2025 Double Materiality Issue Matrix

議題範疇 Issue Category	重要性議題 Material Issue	聯合國可持續發展目標 UN SDGs
環境層面 Environmental Aspects	1. 應對氣候變化 Addressing Climate Change 2. 排放物管理 Emission Management 3. 資源節約與能源利用 Resource Conservation and Energy Utilization 4. 循環經濟 Circular Economy 5. 清潔技術機遇 Clean Technology Opportunities 6. 環境合規管理 Environmental Compliance Management 7. 生態系統和生物多樣性保護 Ecosystem and Biodiversity Protection	
社會層面 Social Dimension	8. 可持續供應鏈 Sustainable Supply Chain 9. 產品質量管理 Product Quality Management 10. 客戶服務保障 Customer Service Assurance 11. 合規僱傭 Compliant Employment 12. 員工培訓與發展 Employee Training and Development 13 職業健康與安全 Occupational Health and Safety 14. 員工關懷與活動 Employee Care and Activities 15. 勞工權益保障 Labor Rights Protection 16. 合作與交流 Collaboration and Exchange 17. 創新研發 Innovation and R&D 18. 知識產權保護 Intellectual Property Protection 19. 社區參與 Community Engagement 20. 鄉村振興 Rural Revitalization 21. 信息安全與私隱保護 Information Security and Privacy Protection	
管治層面 Governance Level	22. 公司治理 Corporate Governance 23.ESG 治理 ESG Governance 24. 商業道德與反貪污 Business Ethics and Anti-Corruption 25. 風險管理 Risk management 26. 利益相關方溝通 Stakeholder Communication	

可持續發展培訓 Sustainable Development Training

立足「雙碳」目標持續深化，資本市場 ESG 監管全面趨嚴的時代要求，本集團將 ESG 能力建設擺在戰略高度，作為提升治理效能、驅動核心戰略落地的核心支撐。

Based on the deepening of the "Dual-Carbon" goals and the requirements of an era with comprehensively stricter ESG supervision in the capital market, the Group places ESG capability building at a strategic height, serving as the core support for enhancing governance efficiency and driving the implementation of core strategies.

「天能 2025 年可持續發展報告啟動會暨 ESG 培訓大會」

"Tianneng 2025 Sustainable Development Report Kick-off Meeting&ESG Training Conference"

為系統提升 ESG 治理能力、高質量編制 2025 年可持續發展報告，集團於 2025 年 11 月邀請外部專家為集團各職能部門負責人、全體分子公司及事業部管理層逾百人開展閉門專題培訓。本次培訓緊扣資本市場監管動態與行業實踐，彰顯本集團對 ESG 信息披露專業性與合規性的高度重視。

To systematically enhance ESG governance capabilities and prepare a high-quality 2025 Sustainable Development Report, Tianneng invited external experts in November 2025 to conduct a closed-door specialized training session for over 100 participants, including heads of various functional departments, management of all subsidiaries and business units. The training closely followed capital market regulatory trends and industry practices, demonstrating the Group's strong emphasis on the professionalism and compliance of ESG information disclosure.

本次培訓不僅強化了管理層對 ESG 戰略價值的認知，更體現了本集團「以專業治理驅動透明披露」的堅定承諾。未來，天能將持續深化與權威機構合作，確保 ESG 信息披露嚴格符合聯交所規範，以高質量、可驗證、有溫度的報告實踐，贏得投資者與社會公眾的長期信賴。

This training not only strengthened management's understanding of the strategic value of ESG but also reflected the Group's firm commitment to "driving transparent disclosure with professional governance." In the future, Tianneng will continue to deepen cooperation with authoritative institutions, ensuring that ESG information disclosure strictly complies with HKEX regulations. By building trust with investors and the public through high-quality, verifiable, and heartfelt reporting practices.

2025 年可持續發展報告啟動會暨 ESG 培訓大會

2025 Sustainable Development Report Kick-off Meeting&ESG Training Conference

專題一 Topic 1

深耕循環生態，打造電池產業閉環新範式

Deepening the Circular Ecosystem, Creating a New Paradigm for the Battery Industry's Closed-Loop System

本集團堅守「資源不枯竭、環境可承載」的可持續發展底線，將循環經濟深度融入戰略主軸與業務實踐。在中國「以舊換新」政策背景下，天能主動承擔產品全生命週期責任，實現「電池製造 - 回收 - 再生 - 利用」的閉環，成為行業內少數實現「鉛 + 鋰」雙軌協同回收、規模化再生材料商業化應用的企業。該體系體現了 ESG 三大核心價值：資源高效循環利用、降碳減污協同增效、產品責任全面履約。

The Group adheres to the sustainable development bottom line of "non-depletable resources, sustainable environment," deeply integrating the circular economy into its strategic axis and business practices. Against the backdrop of China's "trade-in" policy, Tianneng proactively assumes responsibility for the entire product lifecycle, achieving a closed loop of "Battery Manufacturing-Recycling-Regeneration-Reuse." This makes the Company one of the few in the industry to achieve dual-track synergistic recycling of "Lead&Lithium" and the commercial application of large-scale recycled materials. This system embodies three core ESG values: efficient resource circulation, synergistic reduction of carbon emissions and pollution, and full fulfillment of product responsibility.

資源循環利用：循環利用體系持續健全，產業協同效應顯現

Resource Recycling: The recycling system has been continuously improved, and industrial synergy has emerged

資源循環利用：循環利用體系持續健全，產業協同效應顯現

Construction of a Closed-Loop Industrial Ecosystem

本集團在浙江省、江蘇省、河南省、安徽省等地建設循環經濟產業園，實現「電池製造—回收—再生—利用」閉環，打造鉛蓄電池循環生態圈。通過「分散回收、集中處置、無害化再生利用」模式，在中國佈局規範化回收網絡，2025 年制定集團《「無廢集團」建設方案》，完善廢舊電池 48 小時內完成再生處理，大幅提升回收效率。

The Group has established circular economy industrial parks in Zhejiang Province, Jiangsu Province, Henan Province, Anhui Province, and other locations, achieving a closed loop of "Battery Manufacturing-Recycling-Regeneration-Reuse" and creating a lead-acid battery circular ecosystem. Through a model of "Decentralized Collection, Centralized Disposal, Harmless Regeneration and Reuse," we have deployed a standardized recycling network in China. In 2025, we formulated the Group's "*Zero-Waste Group*" *Construction Plan*, improving the process to complete the regeneration of waste batteries within 48 hours, significantly enhancing recovery efficiency.

再生資源高效轉化
Efficient Transformation of Renewable Resources

鉛蓄電池回收 Recycling of Lead-acid Battery

本集團踐行生產者責任延伸制度，以廢舊鉛蓄電池再利用為基礎，打造集危（固）廢收集、貯運、處置、資源化利用為一體的完整產業生態。首創全自動合金真空鑄錠生產線、新型除銅劑再生精煉技術，破解了再生鉛精煉除銅、砷、錫、銻的難題。

The Group practices the Extended Producer Responsibility system. Based on the reuse of waste lead-acid batteries, we have built a complete industrial ecology integrating the collection, storage, transportation, disposal, and resource utilization of hazardous (solid) waste. We pioneered the fully automatic alloy vacuum ingot casting production line and new copper removal agent refining technology, solving the challenges of removing copper, arsenic, tin, and antimony in secondary lead refining.

集團鉛資源回收業務依託全國四大循環經濟產業基地及逾十五年運營經驗，構建覆蓋鉛蓄電池製造、回收、再生、利用的全產業鏈閉環體系。集團在浙江、江蘇、安徽等重點區域取得回收試點資質，合作網點超 300 個；生產環節應用富氧側吹熔煉工藝與自動化破碎分選技術，實現預處理、破碎分選、冶煉提純及環保處置全流程協同，金屬回收率與能源利用效率保持行業較優水平。該業務作為履行生產者責任延伸制度的核心載體，持續完善回收網絡與工藝體系，為集團主業可持續發展提供資源保障與戰略支撐。

The Group's lead resource recovery business relies on the country's four major circular economy industrial bases and more than 15 years of operation experience to build a closed-loop system covering the whole industry chain of lead-acid battery manufacturing, recycling, recycling and utilization. The Company has obtained the recycling pilot qualification in key regions such as Zhejiang, Jiangsu and Anhui, and has more than 300 cooperative outlets; Oxygen enriched side blown smelting process and automatic crushing and sorting technology are applied in the production process to realize the coordination of the whole process of pretreatment, crushing and sorting, smelting and purification and environmental protection disposal, and the metal recovery rate and energy utilization efficiency remain at an excellent level in the industry. As the core carrier of the extended producer responsibility system, the business continues to improve the recycling network and process system, providing resource guarantee and strategic support for the sustainable development of the Group's main business.

鉛蓄電池回收的年回收處理廢鉛蓄電池量超可達 100 萬噸，產品主要包括精鉛、鉛基合金、工業硫酸、再生塑料等。產生的固體廢物主要為側吹爐水淬渣、廢催化劑、鉛灰（煙道灰）、含鉛污泥、轉爐渣、精煉合金浮渣等。

The annual recycling and processing capacity of waste lead-acid batteries can exceed 1 million tons. Products mainly include refined lead, lead-based alloys, industrial sulfuric acid, recycled plastics, etc. The primary solid wastes generated include side-blown furnace water-quenched slag, waste catalysts, lead ash (flue dust), lead-containing sludge, converter slag, and refined alloy dross.

關鍵回收績效 Key Recycling Performance Metrics

再生鉛、硫酸、塑殼等材料回收率超過 **99%**，大幅減少原生鉛礦開採需求。

The recycling rate for materials such as reclaimed lead, sulfuric acid, and plastic shells exceeds 99%, thereby significantly reducing the demand for primary lead ore mining.

鋰離子電池回收
Recycling of Li-ion Battery

本集團發揮工信部「梯次利用 + 再生利用」雙白名單優勢，有效解決退役大動力電池流通領域卡脖子環節，並突破了高值組分協同浸出、多元複合金屬定向遷移等關鍵技術工藝，實現鋰回收率超 94%，鈷、鎳回收率≥ 98.5%，走在行業前列。

Leveraging its advantage as a dual-listed company on the MIIT "Echelon Utilization+Recycling Utilization" whitelist, the Group effectively addresses bottlenecks in the circulation field of retired large power batteries. We have broken through key technologies and processes such as the co-leaching of high-value components and the directional migration of multiple complex metals, achieving a lithium recovery rate exceeding 94% and cobalt/nickel recovery rates ≥ 98.5%, placing us at the forefront of the industry.

在鋰離子電池回收領域，天能構建多層次金屬回用體系，將鋰合成車間淨化及調值渣全面回收納入生產流程再迴圈，將廢水處理污泥返送至浸出工段進一步回收利用，通過精細管理實現多金屬資源的充分利用。

In the field of Li-ion battery recycling, Tianneng has constructed a multi-level metal recovery system. Purification and conditioning slag from the lithium synthesis workshop is comprehensively recovered and reintegrated into the production process for recycling. Wastewater treatment sludge is sent back to the leaching section for further recovery and utilization. Through meticulous management, we achieve the full utilization of multiple metal resources.

關鍵回收績效 Key Recycling Performance Metrics

全年合計 **7.3** 萬噸廢舊鋰離子電池處置能力。

Total annual waste lithium-ion battery disposal capacity 73,000 tons.

鋰回收率超 **94%**，鈷、鎳等硫酸鹽回收率 **≥ 98.5%**

Lithium recovery rate over 94%, recovery rate of sulfate such as cobalt and nickel ≥ 98.5%.

降碳減污：危廢精細管理與清潔生產雙驅動
Carbon Reduction and Pollution Control: Dual Drivers of Hazardous Waste Management and Clean Production

本集團建立了系統化、規範化的危險廢物管理體系，體系以法律法規為基石，將環境、安全與職業健康管理深度整合，是 EHS 管理體系的核心組成部分，並通過數字化技術不斷優化精細化管理水平。

The Group has established a systematic and standardized hazardous waste management system. Built upon laws and regulations, this system deeply integrates environmental, safety, and occupational health management, forming a core component of the EHS management system. We continuously optimize the level of refined management through digital technology.

綠色工藝源頭減量

Green processes for source reduction

本集團立足自主創新，率先在鉛蓄電池研發製造行業探索以數字化手段提升綠色化工藝水平，先後承擔中國綠色製造系統集成項目、中國智能製造試點示範項目，將連鑄連軋、連衝連塗、連續擴網、改進型球磨式鉛粉製造、輪轂式塗板上下覆膜、全密閉高溫固化、全自動裝配、工藝數控、數字孿生等技術融合。同時，天能積極引入計算機模擬仿真、計算機輔助設計、模塊化設計、組建數據庫等先進方法和工具，建成以減少鉛材料消耗量、梯度微負壓脫除車間中含鉛固體顆粒物，實現節能減排的系統模型。

Based on independent innovation, the Group has taken the lead in exploring the use of digital methods to enhance green processes within the lead-acid battery R&D and manufacturing industry. It has successively undertaken national Green Manufacturing System Integration projects and national Intelligent Manufacturing Pilot Demonstration projects. These initiatives integrate the industry's advanced green process equipment—such as continuous casting and rolling, continuous punching and coating, continuous mesh expansion, improved ball-mill lead powder manufacturing, hub-type pasting with upper and lower film coating, fully enclosed high-temperature curing, fully automatic assembly, process numerical control, and digital twinning. Concurrently, Tianneng actively introduces advanced methods and tools such as computer simulation, computer-aided design, modular design, and database creation. This has led to the development of a system model focused on reducing lead material consumption, removing lead-containing particulate matter in workshops using gradient micro-negative pressure, and achieving energy conservation and emission reduction.

降碳智治管理水平

Intelligent Management of Carbon Reduction and Pollution Control

天能積極推進「無廢集團」建設與「雙碳」戰略深度融合，系統性構建減污降碳協同治理體系：

Tianneng actively promotes the deep integration of its "Zero-Waste Group" construction with the "Dual-Carbon" strategy, systematically building a collaborative governance system for pollution reduction and carbon mitigation:

加強碳污協同管理基礎建設。聯合中國環境科學研究院完成全集團碳污數據基線調研，完成溫室氣體排放覈算報告編制及第三方評審，初步構建「一企一策」減廢降碳協同管理體系。

Strengthening the foundational infrastructure for collaborative carbon and pollution management. In collaboration with the Chinese Research Academy of Environmental Sciences, the Group completed a baseline survey of carbon and pollution data across the entire Group, finished the preparation of greenhouse gas emission accounting reports and third-party reviews, and initially established a "one-factory-one-policy" collaborative waste and carbon reduction management system.

固廢智慧監管能力升級。各子公司危險廢物全面接入「固體廢物綜合管理系統」，實現入庫、貯存、出庫及運輸環節的全程電子聯單跟蹤、異常預警與數據留痕，為環境風險防控提供數字化支撐。

Upgrading intelligent supervision capabilities for solid waste. Hazardous waste from all subsidiaries is fully integrated into the "Solid Waste Comprehensive Management System," enabling the entire process of electronic manifest tracking, anomaly alerts, and data recording for the warehousing, storage, outbound, and transportation stages. This provides digital support for environmental risk prevention and control.

關鍵回收績效 Key Recycling Performance Metrics

打造廢舊鉛蓄電池電池循環經濟產業園，實現塑料、鉛等全要素回收，構建「零廢棄」生態閉環。

Creating a circular economy industrial park for waste lead-acid batteries, achieving the full recovery of elements like plastic and lead, and constructing a "zero-waste" ecological closed loop.

推行「四連工藝」，使能耗降低 30% 以上，污染物排放減少 50%。

Implementing the "Four Continuous Processes", which reduces energy consumption by over 30% and pollutant emissions by 50% .

貴州公司蒸汽循環利用年節約成本近 600 萬元，相當於減排 4.5 萬噸二氧化碳。

The Guizhou company's steam recycling initiative saves nearly RMB 6 million annually, equivalent to reducing 45,000 tons of carbon dioxide emissions.

貴州工廠打造動力電池「零碳工廠」，已安裝 7.5 兆瓦光伏組件，年發電量約 550 萬度，相當於減排 6,303 噸二氧化碳，為行業提供低碳樣板。

The Guizhou factory is being developed as a "Zero-Carbon Factory" for power batteries. It has installed 7.5 MW of photovoltaic modules, generating approximately 5.5 million kWh of electricity annually, equivalent to reducing 6,303 tons of carbon dioxide emissions, providing a low-carbon benchmark for the industry.

產品責任：「以舊換新」政策落地與生命週期服務升級

Product Responsibility: Implementation of the "Old for New" Policy and Upgraded Lifecycle Services

2025 年，中國商務部等五部門聯合印發《關於做好 2025 年度電動自行車以舊換新工作的通知》以來，本集團作為中國電動自行車電池供應的龍頭企業，緊跟政策指引，聚焦「建強回收網絡，提升回收技術」，並將其作為核心競爭力打造，從 2009 年開始佈局廢舊電池回收體系以來，已形成了完整的全生命週期電池回收鏈條。

In 2025, following the joint issuance of the *Notice on Properly Implementing the Trade-in of Electric Bicycles in 2025* by five Chinese ministries including the Ministry of Commerce, the Group, as a leading enterprise in China's electric bicycle battery supply, closely followed policy guidelines. Focusing on "building a strong collection network and enhancing recycling technology" and positioning this as a core competitiveness, it has formed a complete full-lifecycle battery recycling chain since beginning its layout of waste battery recycling systems in 2009.

構建回收網絡
Building a Recycling Network

構建「循環經濟生態圈」：通過覆蓋全國的回收網絡，對廢舊電池進行「分散回收、集中處置、無害化再生利用」，減少對原生礦產資源的開採需求，從而間接降低對礦區及周邊生態系統的擾動。

Building a "Circular Economy Ecosystem": Through a nationwide collection network, waste batteries undergo "Decentralized Collection, Centralized Disposal, Harmless Regeneration and Reuse." This reduces the demand for primary mineral resource extraction, thereby indirectly lowering the disturbance to mining areas and surrounding ecosystems.

打造綠色供應鏈
Creating a Green Supply Chain

貫穿從綠色產品、綠色工廠到綠色供應鏈的全流程。多家子公司獲評國家級「綠色工廠」和「綠色供應鏈管理企業」，通過節能減排、減少污染物排放，直接減輕對周邊環境的壓力。

Integrating the entire process from green products and green factories to green supply chains. Numerous subsidiaries have been recognized as national "Green Factories" and "Green Supply Chain Management Enterprises." Through energy conservation and emission reduction, and decreased pollutant discharge, they directly alleviate pressure on the surrounding environment.

案例 Case

天能循環召開創新回收渠道高質量發展大會
Tianneng Recycling Holds High-Quality Development Conference on Innovative Recycling Channels

2025 年，天能下屬子公司環保科技共舉辦三場創新回收渠道高質量大會，通過達成戰略合作簽約、分析行業現狀及未來發展、發佈 2026 年回收戰略等會議議程，與供應鏈上下遊合作夥伴深入交流與戰略協同，搭建了溝通交流平臺，凝聚了行業共識，使循環經濟產業從「單點突破」邁向「共榮共生」，明確了共同的發展方向，為循環經濟可持續高質量發展貢獻力量。

In 2025, Tianneng's subsidiary, Environmental Protection Technology, organized three high-quality development conferences focusing on innovative recycling channels. Through agendas including signing strategic cooperation agreements, analyzing the current industry situation and future development, and announcing the 2026 recycling strategy, the Company engaged in in-depth exchanges and strategic synergy with upstream and downstream supply chain partners. These conferences established a communication and exchange platform, consolidated industry consensus, enabling the circular economy industry to move from "single-point breakthroughs" towards "symbiotic prosperity." They clarified a common development direction, contributing to the sustainable and high-quality development of the circular economy.

循環經濟目標
Circular Economy Goals

本集團始終將可持續發展作為核心戰略發展目標之一，並逐漸完善和建立管理體系；建立循環經濟生態圈，不斷加強集團綠色回收處理能力；完善回收網絡，提升回收技術，形成核心競爭力；堅持數智化提升，加大創新投入力度，提升創新水平，保障循環經濟切實落地。

The Group consistently regards sustainable development as one of its core strategic objectives, continuously improving and establishing management systems. It is building a circular economy ecosystem, constantly strengthening the Group's green recycling and processing capabilities, improving the collection network, enhancing recycling technologies to form core competitiveness, and persisting in digital intelligence enhancement, increasing innovation investment, and elevating innovation levels to ensure the practical implementation of the circular economy.

目標領域 Target Areas	具體內容與計劃 Specific Content and Plans
頂層治理與戰略 Top-Level Governance and Strategy	始終將資源循環業務置於支撐主業可持續發展、履行生產者責任延伸制度的核心戰略地位，未來將繼續完善回收網絡與生產體系，穩步推進工藝優化與成本結構改善。 The resource recycling business is consistently placed at the core strategic position of supporting the sustainable development of the main business and fulfilling the extended producer responsibility system. In the future, we will continue to improve the recycling network and production system, and steadily advance process optimization and cost structure improvement.
核心業務目標 Core Business Objectives	打造 「鉛 + 鋰」循環經濟生態圈，構建廢舊鉛蓄電池和鋰離子電池的綠色回收處理能力。 Build a "lead&lithium" circular economy ecosystem, establishing a green recycling and processing capacity for waste lead-acid batteries and waste lithium-ion batteries.
回收網絡與技術創新 Recycling Network and Technology Innovation	持續優化廢舊鉛蓄電池回收網絡，提升回收效率與可追溯性，確保合規，實現資源高效循環；同時於精鉛提純、資源再生利用及綠色冶煉等關鍵領域不斷突破，打造高效、安全、環保的鉛回收閉環體系。 Continuously optimize the recycling network of waste lead-acid batteries, improve the recycling efficiency and traceability, ensure compliance, and achieve efficient recycling of resources; At the same time, we will continue to make breakthroughs in key areas such as refined lead purification, resource recycling and green smelting, and create an efficient, safe and environmentally friendly lead recovery closed-loop system.
綠色製造與降碳 Green Manufacturing and Carbon Reduction	在製造端持續加碼“綠色智造”，例如應用「四連工藝」，使能耗降低 30% 以上，污染物排放減少 50%。 Continuously increase investment in "green intelligent manufacturing" on the production side, for example, by applying the "four continuous processes" technology to reduce energy consumption by over 30% and pollutant emissions by 50%.

本集團堅信，循環經濟是通往可持續未來的必由之路。我們將持續優化閉環體系，強化技術創新與數智賦能，讓每一塊電池都成為綠色能源轉型的可靠載體，真正踐行「從搖籃到搖籃」的可持續發展承諾。

The Group firmly believes that the circular economy is the only way to a sustainable future. We will continue to optimize the closed-loop system, strengthen technological innovation and digital empowerment, so that every battery becomes a reliable carrier for the green energy transition, truly fulfilling the sustainable development commitment of "from cradle to cradle."

專題二 Topic 2

聚焦多維創新，完善多元能源解決方案

Focusing on Multidimensional Innovation, Improving Diversified Energy Solutions

順應能源轉型趨勢，天能堅持以技術創新為驅動，持續完善鉛蓄電池、鋰離子電池、固態電池、鈉離子電池、氫燃料電池等多元技術研發布局，聚焦不同場景下的能源應用需求，推動產品性能持續優化，助力提升儲能解決方案的安全性、經濟性與使用壽命。本集團將綠色低碳理念深度融入研發全過程，通過數智賦能、平臺共建、人才激勵與產業協同，推動多路線電池技術從實驗室走向大規模商業應用，為新型電力系統與可再生能源消納提供高性價比的解決方案，助力全球能源結構轉型與氣候目標達成。

In response to the energy transition trend, Tianneng adheres to being driven by technological innovation, continuously improving the R&D layout of diverse battery technologies including lead-acid, lithium-ion, solid-state, sodium-ion, and hydrogen fuel cells, focusing on energy application needs in different scenarios, promoting the continuous optimization of product performance, and helping to enhance the safety, economy, and service life of energy storage solutions. The Group deeply integrates the concept of green and low-carbon development into the entire R&D process. Through digital-intelligent empowerment, platform co-construction, talent incentives, and industrial collaboration, it promotes the transition of multi-route battery technologies from the laboratory to large-scale commercial application, providing cost-effective solutions for new power systems and renewable energy accommodation, and contributing to the global energy structure transformation and the achievement of global climate goals.

科技創新戰略與體系建設

Technological Innovation Strategy and System Construction

科技創新是天能實現可持續發展的核心驅動力。集團成立科技管理中心，統籌五大核心職能：編制科技戰略、科技項目全生命周期管理、研發體系搭建、標準 / 專利 / 知識產權制度建設以及能力建設。目前已形成「中央研究院—11 個產品開發研究院—基層技術中心」三級研發布局。2025 年，本集團完成了科創體系與信息化平臺搭建，實現研發管理質的飛躍。

Technological innovation is the core driving force for Tianneng to achieve sustainable development. The Group established the Science and Technology Management Center to coordinate five core functions: formulating technology strategy, full lifecycle management of technology projects, R&D system construction, standard/patent/intellectual property system development, and capacity building. It has currently formed a three-tier R&D layout consisting of the "Central Research Institute — 11 Product Development Research Institutes — Local Technical Centers." In 2025, the Group completed the construction of its sci-tech technology innovation system and information platform, achieving a qualitative leap in R&D management.

鉛蓄電池綠色製造應用升級

Upgrading Green Manufacturing Applications for Lead-Acid Batteries

鉛蓄電池作為本集團傳統優勢業務，持續通過技術創新實現綠色轉型與價值提升。集團通過材料體系創新、工藝技術升級與智能管理系統，大幅提升產品性能與環境友好性，打造「全生命周期低碳」的能源解決方案。

As the Group's traditional advantageous business, lead-acid batteries continue to achieve green transformation and value enhancement through technological innovation. The Group significantly improves product performance and environmental friendliness through material system innovation, process technology upgrades, and intelligent management systems, creating "full lifecycle low-carbon" energy solutions.

本集團率先在行業探索以數字化手段提升綠色化工藝水平，完成中國綠色製造系統集成項目與中國智能制造試點示範項目建設，將連鑄連軋、連衝連塗、連續擴網、改進型球磨式鉛粉製造、輪轂式塗板上下覆膜、全密閉高溫固化、全自動裝配、工藝數控、數字孿生技術深度融合。採用煙氣硫素利用系統，將煙氣預處理淨化、離子液脫硫、純 SO_2 一轉一吸制精製硫酸，實現「硫」在鉛蓄電池產業內部閉環利用；引入創新技術取代傳統熔鉛爐，進一步降低生產能耗。

The Group took the lead in the industry to explore the use of digital means to enhance green process levels, completing the construction of China's Green Manufacturing System Integration Project and China's Intelligent Manufacturing Pilot Demonstration Project. It deeply integrates advanced green process equipment such as continuous casting and rolling, continuous punching and coating, continuous mesh expansion, improved ball mill lead powder manufacturing, hub-type pasting with upper and lower lamination, fully enclosed high-temperature curing, fully automatic assembly, process numerical control, and digital twin technologies. The flue gas sulfur utilization system is adopted, involving flue gas pretreatment purification, ionic liquid desulfurization, and refined sulfuric acid production via pure SO_2 single-conversion and single-absorption, achieving a closed-loop utilization of "sulfur" within the lead-acid battery industry; innovative technologies are introduced to replace traditional lead melting furnaces, further reducing production energy consumption.

案例 Case

赫克力智能化項目
Hekeli Intelligent Project

項目圍繞自動化升級、儲能運營、安全保障等方向展開，包含機器代人相關設備配置、儲能類項目推進、安全防護系統搭建，以及售後環節的自動化流程改造等不同類別的舉措。這些項目落地後，在人力優化、勞動強度降低、運營效能提升等方面實現了預期效果，同時強化了安全預警能力。下圖呈現了機器代人設備、熱成像安全系統、儲能設施及自動化改造現場等核心落地成果。

The project focuses on automation upgrades, energy storage operations, and safety assurance, encompassing various categories of initiatives including the configuration of equipment for replacing manual labor, the promotion of energy storage projects, the construction of safety protection systems, and the automation process transformation in after-sales links. Following the implementation of these projects, expected results have been achieved in areas such as manpower optimization, reduction of labor intensity, and improvement of operational efficiency, while simultaneously strengthening safety early warning capabilities. The following diagram presents core implementation achievements including equipment replacing manual labor, thermal imaging safety systems, energy storage facilities, and the automation transformation site.

機器代人，自動打磨機 Machine-for-Man Substitution — Automatic Grinding Machine

技防 - 熱成像係統 Thermal Imaging -Enabled Security System

機器代人，自動拆垛機 Machine-for-Man Substitution — Automatic Destacker

自動拆垛碼盤機 Automatic Destacking and Palletizing Machine

自動拆垛機 Automatic Destacker

自動碼垛機 Automatic Palletizer

初檢線改造 Initial Inspection Line Transformation

新能源電池技術多路徑佈局
Multi-Pathway Layout of New Energy Battery Technologies

為滿足不同應用場景對能量密度、功率密度、安全性、成本等多維度需求，本集團採取「多技術路線並行」策略，針對不同技術體系持續投入研發力量，並在系統集成與數字化管理方面形成核心競爭力。多項技術成果已實現商業化應用，成為集團儲能及動力業務高速增長的核心引擎。

To meet the multi-dimensional requirements of different application scenarios regarding energy density, power density, safety, and cost, the Group adopts a " multi-route battery technologies" strategy, continuously investing R&D efforts in different technology systems and forming core competitiveness in system integration and digital management. Multiple technological achievements have been commercialized, becoming the core engine for the rapid growth of the Group's energy storage and power businesses.

鋰離子電池產業化突破
Breakthroughs in Lithium-Ion Battery Industrialization

鋰離子電池產品及解決方案主要應用於發電側、電網側與用戶側等儲能項目，並服務於低速電動車輛、特種工業車輛、駐車空調等細分市場，同時逐步向船舶、低空經濟、機器人等新興領域延伸。

Lithium-ion battery products and solutions are primarily applied in energy storage projects on the power generation side, grid side, and user side, while serving niche markets such as low-speed electric vehicles, special industrial vehicles, and parking air conditioners, and are gradually expanding into emerging fields such as maritime vessels, the low-altitude economy, and robotics.

在電芯層面，自主研發的大容量電芯通過中國電科院及中國船級社認證，單體容量達到行業領先水平；在系統集成層面，自主研發的集裝箱和機櫃式儲能產品等已取得國標和海外出口認證，儲能能量管理系統亦通過國標（GB/T42726 等）、CNAS 及 CMA 等權威認證，並獲得行家說儲能頒發的大儲 EMS「新型儲能優秀產品獎」。

At the cell level, independently developed large-capacity cells have obtained certification from the China Electric Power Research Institute and China Classification Society, with single-cell capacity reaching an industry-leading level; at the system integration level, independently developed container-type and cabinet-type energy storage products have obtained national standards and overseas export certifications, and the energy storage energy management system has also obtained authoritative certifications such as national standards (GB/T42726, etc.), CNAS, and CMA, and was awarded the "New Energy Storage Outstanding Product Award" for large-scale storage EMS by Experts Talk about Energy Storage.

在儲能領域，主導建設了多個大型源網側與用戶側工商業儲能項目，實現從項目開發到運維的全流程自主實施，並成功中標中國電建等大型儲能項目設備供應，同時獲得了非洲大型光儲電站、馬來西亞光儲算一體化電站、日本分布式網側電站多個合作訂單。

In the energy storage field, the Group led the construction of multiple large-scale source-grid-side and user-side industrial and commercial energy storage projects, achieving full-process independent implementation from project development to operation and maintenance. It successfully won bids for equipment supply in large-scale energy storage projects such as those from PowerChina, and also secured multiple cooperative orders for large-scale photovoltaic-storage power stations in Africa, integrated photovoltaic-storage-computing power stations in Malaysia, and distributed grid-side power stations in Japan.

鈉離子電池研發應用
Sodium-Ion Battery R&D and Application

本集團已實現鈉離子電池核心材料、電芯設計及系統集成的全鏈條技術佈局與產業化落地，整體技術水準處於行業領先地位。此外，在既有動力與儲能業務積累的基礎上，本集團進一步聚焦汽車起動啟停系統，依託廣泛渠道網絡

The Group has achieved a full-chain technology layout and industrial implementation covering core materials, cell design, and system integration for sodium-ion batteries, with its overall technological level at the industry-leading forefront. Furthermore, building on its accumulated experience in existing power and energy storage

推動多場景示範應用與市場拓展。自主研發的聚陰離子體系電芯在循環壽命、倍率性能及寬溫域適應性等方面表現突出；新型方形電芯等產品研發同步推進，為拓展多元應用場景奠定基礎。在場景驗證方面，本集團堅持以實際應用驗證商業化可行性。在汽車起動啟停領域，本集團推出的「天鈉」系列產品具備優異性能，已實現市場化銷售，在汽車後裝市場滲透率持續提升；在輕型動力及特種工業動力領域，已啟動與主流車企的接洽與送樣測試，逐步積累應用數據；在儲能領域，圍繞高安全、低成本方向已完成技術驗證與產品開發，並承擔省級科技項目，後續將開展示範應用。報告期內，本集團鈉離子電池業務在市場拓展與應用實踐方面取得積極進展，先後獲得高工鈉電金球獎「年度市場開拓獎」及「鈉電應用開拓先鋒」及起點鈉電金鼎獎「鈉電池電芯技術領導品牌」及「鈉電池下遊應用開拓先鋒品牌」等多項行業獎項，體現了該業務佈局的階段性成效與行業認可。

businesses, the Group has further focused on automotive start-stop systems, leveraging its extensive distribution network to promote multi-scenario demonstration applications and market expansion. The independently developed polyanionic cathode cells demonstrate outstanding performance in cycle life, rate capability, and wide temperature range adaptability; the R&D of new products such as prismatic cells is advancing concurrently, laying the foundation for expanding into diverse application scenarios. In terms of scenario validation, the Group insists on verifying commercial feasibility through practical applications. In the automotive start-stop field, the Group's launched "Tianna" series products possess excellent performance, have achieved market sales, and their penetration rate in the automotive aftermarket continues to increase; in the fields of light-duty power and special industrial power, engagement and sample delivery testing with mainstream vehicle manufacturers have been initiated, gradually accumulating application data; in the energy storage field, technical verification and product development have been completed focusing on high safety and low cost, and the Group has undertaken provincial-level technology projects, with demonstration applications to follow. During the reporting period, the Group's sodium-ion battery business made positive progress in market expansion and application practice, successively winning multiple industry awards such as the GGII Golden Globe Award "Annual Market Development Award" and "Sodium-ion Application Development Pioneer," and the Startpoint Sodium-ion Golden Tripod Award "Sodium Battery Cell Technology Leadership Brand" and "Sodium Battery Downstream Application Pioneer Brand," reflecting the phased achievements and industry recognition of this business layout.

案例 Case **天能鈉電標準引領與產業化實踐**
Tianneng Sodium-Ion Battery Standard Leadership and Industrialization Practice

作為國內已參與 4 項鈉電國家標準起草的企業，本集團構建起覆蓋正極材料、電芯製造、智能管理系統的核心技術體系。在國際標準層面，本集團主導提出的 12V 鈉離子電池國際標準提案獲 IEC/TC21 全票通過，標誌著中國企業在汽車輔助電池領域掌握標準主導權。在產業化實踐層面，本集團通過舉辦新品品鑑會引導共贏商深入智造工廠，見證鈉離子汽車電池從精密原材料到可靠成品的全流程鍛造，彰顯了從「技術研發 - 產品量產 - 標準制定」的全鏈條突破能力。

As one of the domestic enterprises that has participated in the drafting of four national standards for sodium-ion batteries, the Group has built a core technology system covering cathode materials, cell manufacturing, and intelligent management systems. At the international standards level, the international standard proposal for 12V sodium-ion batteries led by the Group was unanimously approved by IEC/TC21, marking a Chinese enterprise's mastery of standard-setting initiative in the automotive auxiliary battery field. At the industrialization practice level, the Group guided its suppliers deep into its intelligent manufacturing factories through new product evaluation events, witnessing the entire forging process of sodium-ion automotive batteries from precision raw materials to reliable finished products, demonstrating its full-chain breakthrough capability from "technology R&D - product mass production - standard setting.

固態電池創新突破
Breakthroughs in Solid-State Battery Innovation

本集團推出的新一代固液混合電池產品在電動兩輪車領域於安全性、能量密度、低溫適應性及充電效率等方面表現突出，相關產品已進入送樣及小批量試銷階段。在無人機與機器人領域，本集團開發的長循環壽命的電池解決方案，正與行業重要客戶共同推進產品驗證與小批量銷售，持續積累應用經驗。本集團通過參與二零二五年中國國際電池技術交流會／展覽會、二零二六年矽基負極與固態電池高峰論壇（「論壇」）等行業盛會，發佈新品並開展專題交流，持續提升品牌影響力。憑藉在商業化進程中的先行實踐與突出表現，本集團於論壇榮膺「固態電池產業化先鋒獎」。

The Group's newly launched generation of solid-liquid hybrid battery products demonstrate outstanding performance in safety, energy density, low-temperature adaptability, and charging efficiency within the electric two-wheeler field, and related products have entered the sample delivery and small-batch trial sales stage. In the fields of drones and robotics, the long-cycle-life battery solutions developed by the Group are undergoing product verification and small-batch sales jointly with key industry customers, continuously accumulating application experience. By participating in industry events such as the 2025 China International Battery Fair and the 2026 Silicon-based Anode and Solid-State Battery Summit Forum ("Forum"), the Group launched new products and conducted specialized exchanges, continuously enhancing its brand influence. Leveraging its pioneering practice and outstanding performance in the commercialization process, the Group was honored with the "Solid-State Battery Industrialization Pioneer Award" at the Forum.

案例 Case **天能「脈動」機器人專用固態電池榮膺行業大獎**
Tianneng "Pulse" Robot-Specific Solid-State Battery Wins Industry Grand Prize

在第二屆焉知具身智能機器人年會上，本集團憑藉創新研發的「脈動」機器人專用固態電池，榮獲大會「卓越產品獎」，成為機器人領域首個獲此殊榮的電池產品。該產品以高倍率性能、超長循環壽命及卓越安全性能，有效破解高端移動機器人的續航與動力瓶頸，為具身機器人的穩定高效運行提供能源保障。此次獲獎標誌著天能固態電池技術獲得標準認證與市場應用的雙重權威認可。此前，天能自主研發的固態電池產品已順利通過工信部中國電子技術標準化研究院首批測試，成為少數全面達標的固態電池先鋒應用企業之一。本集團正依託深厚的技術積澱，將業務邊界從動力電池、儲能系統延伸至智能機器人等新興高附加值領域，為集團高質量可持續發展開拓新的增長空間。

At the 2nd Yanzhi Embodied AI Robot Annual Conference, the Group won the conference's "Outstanding Product Award" for its innovatively developed "Pulse" robot-specific solid-state battery, becoming the first battery product in the robotics field to receive this honor. This product effectively solves the endurance and power bottlenecks of high-end mobile robots with its high-rate performance, ultra-long cycle life, and excellent safety performance, providing energy assurance for the stable and efficient operation of embodied robots. This award signifies that Tianneng's solid-state battery technology has received dual authoritative recognition from both standard certification and market application. Previously, Tianneng's independently developed solid-state battery products successfully passed the first batch of tests by the China Electronics Standardization Institute under the Ministry of Industry and Information Technology, becoming one of the few pioneer application enterprises for solid-state batteries that fully meet the standards. Relying on its profound technological accumulation, the Group is extending its business boundaries from power batteries and energy storage systems to emerging high-value-added fields such as intelligent robotics, exploring new growth space for the Group's high-quality sustainable development.

氫燃料電池系統佈局
Hydrogen Fuel Cell System Layout

本集團始終堅持長期技術積累與可落地商業化應用雙核心導向，依託全鏈條正向研發體系，組建由國家級人才與行業資深專家領銜的專業研發團隊，在產業調整期持續夯實技術根基與發展動能。

The Group has always adhered to the dual-core orientation of long-term technological accumulation and implementable commercial application. Relying on its full-chain forward R&D system, it has formed a professional R&D team led by national-level talents and industry senior experts, continuously solidifying its technological foundation and development momentum during the industry adjustment period.

本集團圍繞氫燃料電池核心技術持續推進系統性佈局，已構建起覆蓋膜電極、雙極板、電堆至燃料電池系統的全鏈條自主研發與產業化體系，核心產品性能達到國內先進水準。

The Group continuously promotes systematic layout around core hydrogen fuel cell technologies, having constructed a full-chain independent R&D and industrialization system covering membrane electrodes assembly, bipolar plates, stacks, and fuel cell systems, with core product performance reaching domestically advanced levels.

目前已定型系列燃料電池系統產品，在示範應用中表現良好。值得關注的是，80kW 燃料電池系統成功入選《2025 年度長三角區域創新產品應用示範案例名單》，並被正式認定為二零二四年度浙江省製造業首臺（套）產品；160kW 燃料電池發動機榮獲浙江省工業新產品一等獎。

A series of fuel cell system products have been finalized and performed well in demonstration applications. Notably, the 80kW fuel cell system was successfully selected for the *2025 Yangtze River Delta Regional Innovative Product Application Demonstration Case List* and officially recognized as a 2024 Zhejiang Province Manufacturing Industry First Unit (Batch) of Major Technical Equipment; the 160kW fuel cell engine won the First Prize for Zhejiang Province Industrial New Products.

在市場拓展方面，本集團基於氫能產業當前商業化條件，圍繞具備實際需求與落地基礎的應用場景，有序推進市場推廣。報告期內，重點推進面向氫儲能需求的大功率發電系統和氫能二輪車等特定細分場景的初步交付與應用驗證。同時，本集團持續完善客戶服務體系與產業合作生態，深化與主機廠等行業上下遊夥伴的協同聯動，在多地成功斬獲燃料電池重卡系統、氫能二輪車動力系統、電站用燃料電池發電系統及儲氫系統訂單並完成交付，為後續規模化推廣築牢市場基礎。

In terms of market expansion, based on the current commercialization conditions of the hydrogen energy industry, the Group is orderly promoting market development around application scenarios with actual demand and implementation foundations. During the reporting period, it focused on advancing the initial delivery and application verification of high-power power generation systems for hydrogen energy storage needs and specific segmented scenarios such as hydrogen-powered two-wheelers. Simultaneously, the Group continuously improves its customer service system and industrial cooperation ecosystem, deepening synergistic linkage with upstream and downstream partners such as OEMs. It successfully secured and completed delivery of orders for fuel cell systems for heavy-duty trucks, hydrogen-powered two-wheeler power systems, and fuel cell power generation systems and hydrogen storage systems for power stations in multiple locations, solidifying the market foundation for subsequent large-scale promotion.

未來展望
Future Outlook

立足技術創新與循環實踐的雙輪基礎，天能將能源管理提升至集團戰略核心層面，視為實現「雙碳」目標與 ESG 價值創造的關鍵支撐。基於 2026 年能源管理工作會議系統部署，本集團以「體系築基、技術驅動、精細運營、價值顯現」為路徑，全面構建覆蓋「集團—事業部—基地」三級的能源治理體系，推動能耗強度與碳排放強度雙下降，為綠色製造與可持續發展注入持久動能。

Based on the dual foundations of technological innovation and circular practices, Tianneng has elevated energy management to the core strategic level of the Group, viewing it as key support for achieving the "Dual-Carbon" goals and ESG value creation. Following the systematic deployment at the 2026 Energy Management Work Conference, the Group is comprehensively building an energy governance system covering three levels— "Group-Business Division-Base" —following the path of "System Foundation, Technology Driven, Refined Operations, Value Realization." This promotes a dual decline in energy intensity and carbon emission intensity, injecting lasting momentum into green manufacturing and sustainable development.

短期（2026-2027 年）
Short-term (2026-2027)

將繼續落實降本增效，推進海外業務先行及海外戰略合作。

Continue to implement cost reduction and efficiency enhancement.

以「效益優先 + 合規閉環」為核心，提升產能利用率與單位成本競爭力；提前完成磷酸鐵鋰體系客戶與產品認證佈局。

With the core of "efficiency priority + compliance closed loop," improve capacity utilization and unit cost competitiveness; complete the customer and product certification layout for the lithium iron phosphate system in advance.

中期（2028-2029 年）
Medium-term (2028-2029)

形成可複製的「渠道 - 產能 - 客戶 - 風控」一體化模型，擴大規模與區域協同，提升行業影響力與議價能力。

Form a replicable "channel-capacity-customer-risk control" integrated model, expand scale and regional synergy, enhance industry influence and pricing power.

長期（2030 年）
Long-term (2030)

實現規模化、標準化與低碳化運營，支撐集團全球化佈局。

Achieve large-scale, standardized, and low-carbon operations, supporting the Group's capitalization and global expansion.

實現科技轉型，增加海外業務規模佔比。

Realize technological transformation, increase the proportion of overseas business scale

本集團將始終以科技創新為核心引擎，系統構建「鉛、鋰、固態、鈉、氫」五軌並行技術體係，依託數智平臺統籌研發，實現科技創新成果落地。面向 2026 年，集團將能源治理與技術攻關雙輪驅動，通過「三個清單」精細管理、餘熱回收與智能能管等項目，持續提升綠色製造韌性與價值創造能力，堅定踐行「綠色能源，驅動世界」使命，為全球能源轉型貢獻天能智慧。

The Group will always take technological innovation as its core engine, systematically building a five-track parallel technology system encompassing "lead-acid, lithium-ion, solid-state, sodium, and hydrogen." Leveraging digital platforms to coordinate research and development, it aims to achieve the implementation of technological innovation achievements. Looking ahead to 2026, the Group will drive dual progress in energy governance and technological breakthroughs. Through projects such as the refined management of "three lists," waste heat recovery, and intelligent energy management, it will continuously enhance the resilience of green manufacturing and value creation capabilities, steadfastly fulfilling its mission of "Green Energy, Powering the World" and contributing Tianneng's wisdom to the global energy transition.

01

管治篇

Governance Section

能守正道
護航企業行穩致遠

Upholding Integrity, Ensuring Steady and Long-Term Corporate Development

守正道者行遠，善治理者致遠。本集團深信，卓越的企業管治是可持續發展的壓艙石與指南針。董事會作為治理核心，將環境、社會及管治（ESG）理念深度融入戰略決策與風險管理全過程，通過權責清晰的治理架構、嚴密的合規體系與透明的問責機制，築牢企業發展底線。本章節系統闡述本集團在董事會領導、風險管控、商業道德、合規經營及反貪腐等領域的治理實踐，彰顯以責任擔當守護企業信譽、以制度創新驅動高質量發展的堅定承諾，為股東與社會創造可持續的長期價值。

Those who uphold the right path will go far, and those who govern well will reach distant horizons. The Group firmly believes that excellent corporate governance is the ballast and compass for sustainable development. The Board of Directors, as the core of governance, deeply integrates Environmental, Social, and Governance (ESG) principles into the entire process of strategic decision-making and risk management. By establishing a governance structure with clear responsibilities and authorities, a rigorous compliance system, and transparent accountability mechanisms, it solidifies the foundation for corporate development. This chapter systematically elaborates on the Group's governance practices in areas such as theleadership of Board of Directors, risk control, business ethics, compliance operations, and anti-corruption, demonstrating its firm commitment to safeguarding corporate reputation through responsible stewardship and driving high-quality development through institutional innovation, thereby creating sustainable long-term value for shareholders and society.

夯實管治基礎 Strengthening Governance Foundations

根基固則枝葉茂，治理強則企業興。本集團始終將健全的治理架構與制度體系視為可持續發展的基石，持續優化以董事會為核心的治理結構，強化董事會在 ESG 議題上的統籌職能，完善覆蓋全業務鏈條的合規管理與內部控制體系。通過制度迭代、數字化賦能與責任穿透，築牢風險防線，確保決策科學、執行高效、監督有力，為企業高質量發展與價值創造提供堅實保障。

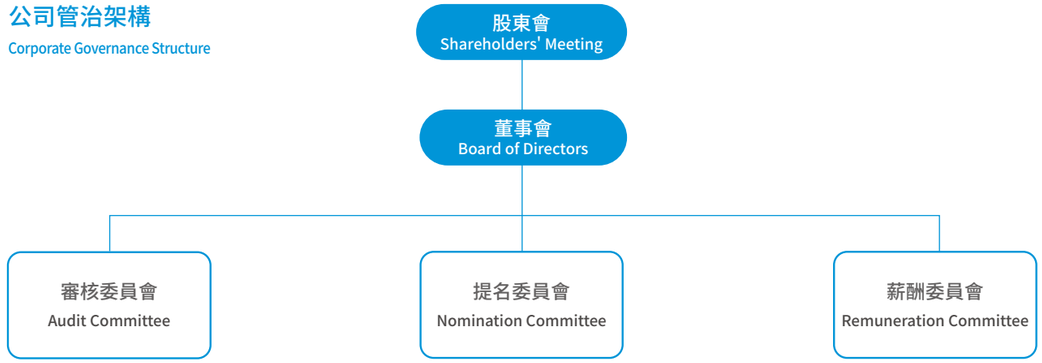
With a solid foundation, branches and leaves flourish; with strong governance, the enterprise prospers. The Group has always regarded a sound governance structure and institutional system as the cornerstone of sustainable development. We continuously optimize the governance structure centered on the Board of Directors, strengthen the coordinating function of Board of Directors on ESG issues, and improve the compliance management and internal control system covering the entire business chain. Through system iteration, digital empowerment, and accountability penetration, we build a robust risk defense line, ensuring scientific decision-making, efficient execution, and strong supervision, providing solid support for high-quality corporate development and value creation.

公司管治 Corporate Governance

本集團嚴格遵循《上市規則》及《公司章程》，構建以「股東會—董事會—管理層」為核心的現代化治理架構。董事會由九名成員組成，其中包括四名獨立非執行董事。董事會的主要職能是審議和批準公司戰略，審查內部控制制度和運營合規性。我們定期召開董事會會議，確保透明決策，保障董事充分表達意見，並對管理層實施有效監督。

The Group strictly complies with the *Listing Rules* and the *Articles of Association*, establishing a modern governance structure centered on the "Shareholders' Meetings of Directors-Management." The Board of Directors consists of nine members, including four independent non-executive directors. The main functions of the Board are to review and approve the Company's strategy, and examine internal control systems and operational compliance. We hold regular board meetings to ensure transparent decision-making, guarantee that directors can fully express their opinions, and implement effective supervision over management.

公司管治架構 Corporate Governance Structure



股東會 Shareholders' Meeting	• 股東會是公司最高權力機構。 The Shareholders' Meeting is the Company's highest authority. • 公司嚴格依照《上市規則》及《公司章程》的規定，召集、召開股東會，保證所有股東對本集團重大事項的知情權、參與權和表決權，確保所有股東享有平等地位，並能夠充分行使自己的權利，保證了股東會的合法有效性。 The Company convenes and holds general meetings of shareholders in strict accordance with the provisions of the "*Listing Rules*" and the *Articles of Association*, ensuring all shareholders' rights to be informed, to participate, and to vote on major matters of the Group. This guarantees that all shareholders enjoy equal status and can fully exercise their rights, ensuring the legality and validity of the meeting of shareholders.	周年股東大會 1 次； 1 Annual General Meeting of Shareholders; 特別股東大會 1 次， 1 Extraordinary General Meeting of Shareholders, 共 2 次 2 in total.
董事會 Board of Directors	• 公司董事會嚴格依據《上市規則》《公司章程》及其他規定履行其作為經營決策機構的職責。 The Company's Board of Directors strictly fulfills its duties as the operational decision-making body in accordance with the "*Listing Rules*", *Articles of Association* and other regulations. • 公司下設有審核委員會、提名委員會、薪酬委員會 3 個專門委員會。專門委員會成員全部由董事組成，且獨立董事人數佔專門委員會委員的比例均達到三分之二，為董事會的決策提供了科學和專業的意見和參考。 The Company has established three special committees: the Audit Committee, the Nomination Committee, and the Remuneration Committee. All members of these special committees are directors. The proportion of independent directors on these other special committees reaches two-thirds, providing scientific and professional opinions and references for the Board of Directors' decision-making.	董事會召開次數：4 次 Board Meetings Held: 4 times 董事會成員出席率：100% Board Member Attendance Rate: 100%

審核委員會 Audit Committee	• 審核委員會負責檢討財務報告、內部控制及風險管理體系的有效性，確保外聘核數師的獨立性與審計質量，並檢討內部審計職能及舉報安排等事宜。 The Audit Committee is responsible for reviewing the effectiveness of financial reporting, internal control and risk management systems, ensuring the independence and audit quality of external auditors, and reviewing internal audit functions and reporting arrangements.	審核委員會召開次數：3 次 Number of Audit Committee meetings held: 3 times
提名委員會 Nomination Committee	• 提名委員會負責檢討董事會架構與多元化政策，物色、甄選及提名合適董事人選，評估董事獨立性，並協助制定董事會及高級管理層的繼任計劃，確保董事會具備適當技能與多元背景以有效運作。 The Nomination Committee is responsible for reviewing the structure and diversification policy of the Board of Directors, identifying, selecting and nominating suitable candidates for directors, assessing the independence of directors, and assisting in the formulation of succession plans for the Board of Directors and senior management to ensure that the Board of Directors has appropriate skills and diverse backgrounds to operate effectively.	提名委員會召開次數：1 次 Number of Nomination Committee meetings held: 1 time
薪酬委員會 Remuneration Committee	• 薪酬委員會負責就董事及高級管理人員的薪酬政策、架構及個別待遇向董事會提供建議，審閱並批準績效獎勵、退休金、賠償安排及股份計劃等事宜，確保薪酬制度公平合理且符合企業戰略目標。 The Remuneration Committee is responsible for providing suggestions to the Board of Directors on the remuneration policy, structure and individual benefits of directors and senior executives, reviewing and approving performance awards, pensions, compensation arrangements and share plans, and ensuring that the remuneration system is fair and reasonable and in line with the strategic objectives of the enterprise.	薪酬委員會召開次數：1 次 Number of Remuneration Committee meetings held: 1 time

關鍵績效 Key Performance

報告期內公司共召開

股東週年大會	股東特別大會	董事會	董事會董事出席率
1 次	1 次	4 次	100%

審計委員會	提名委員會	薪酬委員會
3 次	1 次	1 次

During the reporting period the Company held a total of 1 annual general meeting, 1 extraordinary general meeting, 4 Board meetings, with a 100% director attendance rate; 3 Audit Committee meetings, 1 Nomination Committee meeting, and 1 Remuneration Committee meeting.

董事會多元化
Board of Directors Diversity

本集團嚴格遵循聯交所《企業管治守則》要求，制定《員工多元化政策》並獲董事會批準，將多元化與多元共融理念深度融入公司治理架構。政策明確規定，董事會成員組成應兼顧性別、年齡、專業背景、行業經驗、文化視野及技能組合等多維度，確保決策過程視野開闊、風險研判全面。本集團設立可計量目標，並在各職級（包括管理層）確保性別代表性平衡。提名委員會每年審查全集團多元化政策執行情況，評估董事會成員技能矩陣與組合效能，識別潛在缺口並制定改善方案。

The Group strictly abides by the requirements of the *Corporate Governance Code* of the Stock Exchange, formulates the *Employee Diversity Policy* and is approved by the Board of Directors, and deeply integrates the concept of diversity and pluralism into the corporate governance structure. The policy clearly stipulates that the composition of the Board of Directors should take into account gender, age, professional background, industry experience, cultural vision and skill combination, so as to ensure that the decision-making process has a broad vision and comprehensive risk assessment. The Group has set measurable targets, and ensure a balanced gender representation at all levels (including management). The nomination committee reviews the implementation of the Group wide diversification policy every year, evaluates the skill matrix and portfolio effectiveness of board members, identifies potential gaps and develops improvement plans.

董事會堅信，多元共融的治理結構不僅是履行社會責任的體現，更是提升戰略前瞻性、強化風險管控與驅動可持續創新的核心動力，為本集團實現「綠色能源，驅動世界」的使命提供堅實治理保障。

The Board of Directors firmly believes that the diversified and inclusive governance structure is not only the embodiment of fulfilling social responsibilities, but also the core power to enhance strategic foresight, strengthen risk control and drive sustainable innovation, providing a solid governance guarantee for the Group to achieve its mission of "green energy, drive the world".

2025 年董事會多元化數據表
2025 Board of Directors Diversity Data Sheet

指標 Indicators	單位 Unit	2025
獨立董事佔比 Proportion of Independent Directors	%	44.44
女性董事佔比 Proportion of Female Directors	%	11.11
30-50 歲董事人數 Number of Directors Aged 30-50	人 People	1
50 歲以上董事人數 Number of Directors Aged Over 50	人 People	8
高級管理人員 Senior management	人 People	3
女性高級管理人員佔比 Proportion of Female Senior Executives	%	66.67

堅守合規誠信 Adhering to Compliance and Integrity

誠信立企，合規致遠。本集團視商業道德與合規經營為企業生存發展的生命線，將「誠實守信、遵紀守法、公平透明」的理念深度融入治理架構與日常運營。通過健全的合規管理體系、清晰的行為準則與全員責任機制，築牢風險防線，杜絕舞弊與不當行為，守護企業聲譽與社會信任。我們堅信，唯有以誠信為基、以合規為尺，方能贏得客戶信賴、投資者認可與社會尊重，為可持續發展注入持久動能，踐行對全體利益相關方的莊嚴承諾。

Integrity as the Foundation, Compliance for Long-term Success. The Group regards business ethics and compliance operations as the lifeline of corporate existence and development, deeply integrating the core values of "honesty and trustworthiness, abiding by laws and regulations, fairness and transparency" into its governance structure and daily operations. Through a sound compliance management system, clear codes of conduct, and a responsibility mechanism for all employees, we strengthen our risk defense, eliminate fraud and misconduct, and safeguard corporate reputation and social trust. We firmly believe that only by basing ourselves on integrity and adhering to compliance can we win customer trust, investor recognition, and social respect, injecting lasting momentum into sustainable development and fulfilling our solemn commitments to all stakeholders.

合規管理架構 Compliance Management Structure

本集團嚴格遵守法律法規及商業道德要求，堅守廉潔底線，規範業務行為，建立完善反商業賄賂、反貪腐、反壟斷和不正當競爭管理體系，致力於營造公正廉潔、和諧共榮的商業環境，推動企業和社會的可持續發展。為切實加強反壟斷與公平競爭合規管理，集團根據《中華人民共和國反壟斷法》《經營者反壟斷合規指南》及《浙江省企業競爭合規指引》等相關法律法規、指導文件，制定《反壟斷合規管理制度》，明確以各部門、各子公司的第一負責人為反壟斷合規管理負責人，由總部法務部負責組織開展具體工作，防範反壟斷合規風險。

The Group strictly complies with legal regulations and business ethics requirements, upholds the bottom line of integrity, standardizes business conduct, and has established a comprehensive management system of anti-bribery, anti-corruption, anti-monopoly, and unfair competition. We are committed to creating a fair, honest, harmonious, and prosperous business environment, promoting the sustainable development of the enterprise and society. To effectively strengthen anti-monopoly and fair competition compliance management, the Group has formulated the *Anti-Monopoly Compliance Management System* based on the *Anti-Monopoly Law of the People's Republic of China*, the *Anti-Monopoly Compliance Guidelines for Business Operators*, and the *Zhejiang Province Enterprise Competition Compliance Guidelines*, among other relevant legal and regulatory documents. This system clarifies that the first responsible person of each department, subsidiary, and business unit is the anti-monopoly compliance manager, with the headquarters legal department responsible for organizing and carrying out specific work to prevent anti-monopoly compliance risks.

商業道德與反貪污 Business Ethics and Anti-Corruption

本集團恪守「誠信為本、合規為基」的經營準則，嚴格遵循《中華人民共和國刑法》《中華人民共和國反不正當競爭法》、香港《防止賄賂條例》及聯交所《企業管治守則》相關要求，為規範採購人員行為，加強採購防腐廉潔管理，杜絕採購中腐敗關係和腐敗行為，集團制定《採購廉潔管理辦法》《員工紅線管理制度》等制度體系，明確禁止任何形式的賄賂、貪污、利益衝突及不當利益輸送行為，加強腐敗預防與節點控制，對關聯供應商進行回避管理，明確採購行為要求和紅線內容，並將合規要求延伸至供應鏈全環節。董事會審核委員會專責監督反貪污政策執行與風險管控，定期審議合規報告；集團設立獨立合規管理部門，統籌政策落地、風險排查與舉報調查工作。

The Group adheres to the business principle of "integrity as the foundation, compliance as the base," strictly following the relevant requirements of the *Criminal Law of the People's Republic of China*, the *Anti-Unfair Competition Law of the People's Republic of China*, Hong Kong's *Prevention of Bribery Ordinance*, and the HKEX *Corporate Governance Code*. To regulate the behavior of procurement personnel, strengthen anti-corruption and integrity management in procurement, and eradicate corrupt relationships and behaviors in procurement, the Group has established systems such as the *Procurement Integrity Management Measures* and the *Employee Red Line Management System*. These systems explicitly prohibit any form of bribery, corruption, conflicts of interest, and improper benefit transfers, strengthen corruption prevention and node control, implement avoidance management for related suppliers, clarify procurement behavior requirements and red line content, and extend compliance requirements to all aspects of the supply chain. The Audit Committee of Board of Directors is specifically responsible for supervising the implementation of anti-corruption policies and risk control, regularly reviewing compliance reports; the Group has established an independent compliance management department to coordinate policy implementation, risk investigation, and whistleblowing investigation work.

本集團將廉潔教育納入全員培訓體系，實現各板塊廉潔教育培訓全覆蓋，針對新員工開展現場廉政教育培訓，每年三月組織廉潔教育考試（電腦端線上考、無電腦端線下考），要求全員考試合格；創新教育形式，匯編違規違紀案例形成《反舞弊藍皮書》併發放至集團各職能部門及子公司一把手進行宣傳貫徹；自編自演工程採購人員賄賂案例微電影，每月選取典型案例開展內部以案說教，剖析案例原因、提煉警示啟示、明確防範措施。

The Group incorporates integrity education into its comprehensive training system, achieving full coverage of integrity training across all sectors. New employees receive on-site integrity education and training. Every March, an integrity education examination is organized (online computer-based test, or offline test for those without computer access), requiring all employees to pass. Innovative educational formats are adopted: a compilation of violated discipline cases formed the *Anti-Fraud Blue Book*, distributed to the heads of all Group functional departments and subsidiaries for promotion. Self-written and self-performed micro-films depicting bribery cases involving engineering and procurement personnel were created. Each month, typical cases are selected for internal education, analyzing case causes, extracting warnings and enlightenment, and clarifying preventive measures.

2025 年廉潔培訓績效表

2025 Integrity Training Performance Table

指標 Indicators	單位 Unit	2025
反商業賄賂與反貪污培訓次數 Number of Anti-Bribery and Anti-Corruption Training Sessions	次 Times	42
反商業賄賂與反貪污培訓參與人數 Number of Participants in Anti-Bribery and Anti-Corruption Trainings	人次 Person Time	11,900

「2025 年開展廉潔培訓」
"2025 Integrity Training Conducted"

2025 年，本集團堅持開展專業化、系統化、常態化廉潔教育，使員工廉潔意識入腦入心。開展廉潔教育培訓超 40 場次，覆蓋一萬人次；以考促學，組織全體管理幹部、行政人員廉潔考試，考試通過率達 98%。

In 2025, the Group persisted in conducting professional, systematic, and regular integrity education, embedding integrity awareness deeply into employees' minds. Over 40 integrity education and training sessions were held, covering 10,000 participants. Learning was promoted through examinations, with integrity tests organized for all management cadres and administrative staff, achieving a pass rate of 98%.

結合查處案件製作廉潔宣導片「足不出戶」的出差報銷，現身說法、以案說教。各事業部圍繞採購防腐、合規管控、案例整改等主題開展交流分享，推動警示教育成果向實際管理效能轉化，強化全員廉潔合規與反舞弊意識，助力構建「清廉天能」全流程風險防控體系。

An integrity advocacy film "Business Trip Reimbursement Without Leaving Home" was produced based on investigated cases, using real examples to deliver warning lessons. Various business divisions held exchange and sharing sessions on topics including procurement anti-corruption, compliance control, and case rectification, promoting the transformation of warning education outcomes into practical management effectiveness. This strengthened the awareness of integrity, compliance, and anti-fraud among all employees, supporting the development of a "Clean Tianneng" full-process risk prevention and control system.

「2025 年審計監察績效」
"2025 Audit and Supervision Performance"

本年度，審計發出《審計整改通知書》15 份，整改閉環銷號 98% 以上，挽回經濟損失和降本增效超過人民幣 2,000 萬元。

This year, more than 15 *Audit Rectification Notices* were issued, with over 98% of rectifications completed in a closed-loop manner, recovering economic losses and reducing costs/increasing efficiency by over 20 million RMB.

形成效能服務監察報告 12 份，提出管理改善建議 20 項。

12 performance and service supervision reports were generated, proposing 20 management improvement suggestions.

「市場全流程監控機製」
"Market Full-Process Monitoring Mechanism"

市場品牌深入一線。建立全流程監控機制，圍繞產品「售前、售中、售後」關鍵環節，組建專項巡查小組，走訪 14 個省份，訪談相關人員 150 餘人，形成市場報告 10 份，2025 年，未發生相關貪污訴訟案件。

Market brand goes deep into the front line. A full-process monitoring mechanism was established. Focusing on the key stages of "pre-sales, during-sales, and after-sales", special investigation teams were formed, visiting 14 provinces, interviewing more than 150 relevant personnel, producing 10 market reports, no relevant corruption litigation cases occurred in 2025.

舉報制度 Whistle-blowing System

為保障企業穩定健康發展，搭建有序、和諧的監督溝通渠道，集團制定《舉報獎勵制度》及配套的舉報投訴制度、舉報人保護體系，明確「每項反饋必有回應、每起查實必有追責」的工作原則，切實保障舉報人的合法權益，維護利益相關方對企業的信任。

To ensure stable and healthy enterprise development and establish orderly and harmonious supervision and communication channels, the Group formulated the *Whistleblowing Reward System* and supporting whistleblowing reporting procedures and a whistleblower protection system. This clarifies the working principle of "every feedback must have a response, every verified case must have accountability," effectively protecting the legitimate rights and interests of whistleblowers and maintaining stakeholder trust in the enterprise.

本集團全方位暢通舉報投訴渠道，在總部辦公區域、駐外辦事機構和各生產基地設置線下投訴舉報信箱，張貼舉報渠道宣傳海報，同時開通網站線上投訴渠道，利益相關方可通過線下信箱、線上平臺等方式進行實名或匿名舉報，舉報路徑透明、渠道暢通。針對舉報線索建立健全全流程管理機制，審計監察委員會對舉報人的相關信息、舉報內容及證據嚴格保密，將舉報材料列入機密文件管理，嚴禁轉給被舉報單位；對收到的舉報線索實施規範化處理，及時開展核查、監察，對查實的問題依法依規公示處理結果，對違規違紀線索做到快速響應、有效核查、嚴肅追責。

The Group ensures unimpeded whistleblowing and reporting channels in all aspects. Physical reporting mailboxes are installed in the headquarters office area, branch offices, and production bases, with promotional posters displaying reporting channels. Simultaneously, an online website reporting channel is available. Stakeholders can make real-name or anonymous reports through physical mailboxes or online platforms; the reporting path is transparent, and channels are unblocked. A comprehensive full-process management mechanism for reporting clues has been established and refined. The Audit and Supervision Committee strictly maintains the confidentiality of whistleblower information, reported content, and evidence. Reporting materials are managed as confidential documents and strictly prohibited from being transferred to the reported unit. Standardized handling is applied to received reporting clues, with timely verification and investigation. Verified issues are publicly notified of the handling results in accordance with laws and regulations. Quick response, effective verification, and serious accountability are achieved for clues involving violations of discipline.

增強風險韌性 Enhancing Risk Resilience

本集團以「建體系、控風險、主健康」為核心宗旨，制定《全面風險管理制度》等專項制度，構建覆蓋財務、健康安全、環境、員工、業務運營、聲譽、合法合規及 ESG 相關風險（含氣候風險）的全領域風險管控體系，形成「風險識別 - 評估 - 應對 - 監督 - 復盤」的全方面閉環管理機制，確保集團經營活動健康開展，促進企業持續、穩定發展。

With the core principle of "Building Systems, Controlling Risks, Maintaining Health," the Group formulated specialized systems such as the *Comprehensive Risk Management System*. It has constructed a full-domain risk control system covering finance, health and safety, environment, employees, business operations, reputation, legal compliance, and ESG-related risks (including climate risks). This forms a comprehensive closed-loop management mechanism of "Risk Identification-Assessment-Response-Supervision-Review," ensuring the healthy development of the Group's operational activities and promoting sustained and stable enterprise growth.

集團搭建囊括風險評估、風險管理策略、風險應對方案、內部控制、全面風險管理考核的完整制度框架，明確各層級、各單位風險管理具體職責，通過定期監督、考核約束等方式保障制度落地執行，推動風險管理深度融入業務全流程。

The Group has established a complete institutional framework encompassing risk assessment, risk management strategies, risk response plans, internal controls, and comprehensive risk management assessment. It clarifies the specific risk management responsibilities of each level and unit. Through regular supervision and assessment constraints, it ensures the implementation of systems, promoting the deep integration of risk management into all business processes.

風險管理體系 Risk Management System

居安思危築底線，未雨綢繆贏未來。本集團將全面風險管理視為可持續發展的戰略支撐與治理核心，嚴格遵循香港聯合交易所有限公司《企業管治守則》及《ESG 報告守則》，構建以董事會統領、三道防線協同的立體化風險管理體系。2025 年，修訂了《全面風險管理制度》、內控條線人員《重點業務領域流程審查指引》、建立內控聯絡員機制《關於強化各單位內控體系建設主體責任以及設置兼職內控聯絡員的通知》。通過「體系為本、合規為基、數智創新、全球風控、法商融合、攻防兼備」的風控策略，本集團將風險管理深度融入戰略規劃、投資決策與日常運營，尤其強化氣候變化、供應鏈韌性、數據安全等 ESG 關鍵風險的識別與應對，以系統性、前瞻性的風險治理能力，築牢企業韌性底線，護航綠色轉型與高質量發展。

Staying vigilant in times of peace solidifies the bottom line; preparing in advance secures the future. The Group regards comprehensive risk management as a strategic support and core governance function for sustainable development. Strictly complying with the requirements of the *Corporate Governance Code* and the *ESG Reporting Code*, it has established a three-dimensional risk management system led by the Board of Directors and coordinated by three lines of defense. In 2025, the Group revised and issued the *Comprehensive Risk Management System*, the *Key Business Area Process Review Guidelines* for internal control personnel, and the *Notice on Strengthening the Primary Responsibility for Internal Control System Construction in All Units and Appointing Part-time Internal Control Liaisons*. Through risk control strategies focusing on "System-oriented, Compliance-based, Digital Innovation, Global Risk Control, Integration of Law and Business, and Balanced Offense and Defense", the Group deeply integrates risk management into strategic planning, investment decisions and daily operations. It particularly strengthens the identification and response to key ESG risks such as climate change, supply chain resilience and data security. With systematic and forward-looking risk governance capabilities, the Group consolidates the enterprise's resilience bottom line, supporting green transformation and high-quality development.

三道防線治理架構 Three Lines of Defense Governance Structure

本集團嚴格遵循「業務主管負主責、專業部門提供武器和監督、審計部門最終校驗」的風險管理哲學，構建清晰的三層防線責任體系，確保風險管控全流程覆蓋、全鏈條閉環。

The Group strictly adheres to the risk management philosophy of "Business heads take primary responsibility, professional departments provide tools and supervision, and the audit department conducts final verification," constructing a clear three-tiered defense responsibility system to ensure full-process coverage and closed-loop risk control across the entire chain.

第一道防線 First Line of Defense

- 業務單元負責人 Business Unit Heads
- 各職能部門負責人 Functional Department Heads
- 兼職內控聯絡員 Part-time Internal Control Liaisons

- 業務單元一把手為所在業務單元內控第一責任人，承擔業務單元主體責任；各職能部門一把手為各職能領域內控第一責任人，承接職能歸口主體責任。
  The head of each business unit is the primary person responsible for internal control within that unit, bearing the primary responsibility of the unit; the head of each functional department is the primary person responsible for internal control within their functional area, undertaking the primary responsibility for functional management.
- 梳理識別業務風險和控制缺陷，持續健全完善流程制度。
  Identify and assess business risks and control deficiencies, continuously improve processes and systems.
- 落實流程節點責任，定期自查流程制度遵循執行情況。
  Implement responsibilities at process nodes, regularly self-check compliance with and execution of processes and systems.
- 每半年組織開展內控自評，全面梳理單位流程和制度。
  Organize internal control self-assessments every six months, comprehensively reviewing unit processes and systems.

第二道防線 Second Line of Defense	• 風控管理中心 Risk Control Management Center • 職能歸口管理部門 Functional Management Departments	• 風控管理中心負責定期考核評價各單位體系建設和運行情況，尤其關注高風險業務和領域。 The Risk Control Management Center is responsible for regularly assessing and evaluating the construction and operation of systems in each unit, paying particular attention to high-risk businesses and areas. • 開發風險管理工具模板，組織專業培訓與賦能指導。 Develop risk management tools and templates, organize professional training and empowerment guidance. • 牽頭重點領域風險治理（採購、大宗交易、資產安全、海外合規等）。 Lead risk governance in key areas (procurement, large transactions, asset security, overseas compliance, etc.). • 推進數字化風控建設，建立數據模型與預警機制。 Promote the construction of digital risk control, establishing data models and early warning mechanisms. • 負責法律合規風險管理，包括訴訟管理、合規體系建設等。 Responsible for legal and compliance risk management, including litigation management and compliance system construction.
第三道防線 Third Line of Defense	• 審計監察部門 Audit and Supervision Department	• 獨立評估風險管理體系有效性 Independently evaluate the effectiveness of the risk management system. • 對一二道防線風險控制措施執行情況進行監督檢查。 Supervise and inspect the implementation of risk control measures by the first and second lines of defense. • 調查違規違紀行為，追蹤問題整改。 Investigate violations of discipline, track problem rectification. • 向董事會或審核委員會報告重大風險與內部控制缺陷。 Report significant risks and internal control deficiencies to the Board of Directors or Audit Committee.

重點領域風險治理 Key Area Risk Governance

圍繞董事會確定的戰略風險與合規底線，本集團聚焦六大關鍵領域強化風險管控：

Focusing on the strategic risks and compliance bottom line determined by the Board of Directors, the Group strengthens risk control in six key areas:

投資風險 Investment Risk	建立全生命周期風控機制，2025 年推動投資預算線上閉環與風控前置介入；Establish a full-lifecycle risk control mechanism. In 2025, promote online closed-loop investment budgeting and early intervention in risk control.
供應鏈風險 Supply Chain Risk	通過供應商全生命周期管理、電子招採管控、年度競價機制，解決單一供應商與貿易商採購痛點，2025 年推動 34 家貿易商替代、31 種物料單一採購風險治理；Address procurement pain points related to single suppliers and trading companies through full lifecycle supplier management, electronic procurement control, and annual bidding mechanisms. In 2025, promoted the replacement of 34 trading companies and addressed single-source procurement risks for 31 materials.
資產安全風險 Asset Security Risk	以數字化手段強化地磅、倉儲、門禁與物耗管控，2025 年內控稽核查處資產安全問題 176 項，整改率 87%；Use digital means to strengthen control over weighbridges, warehousing, access control, and material consumption. In 2025, internal control audits identified 176 asset security issues, with an 87% rectification rate.
海外合規風險 Overseas Compliance Risk	全面排查海外賬戶、印章、證照，將所有海外賬戶收歸集團管控，安裝 5 個智能章筒，海外證照移交集團檔案室統一管理；Comprehensively check the overseas accounts, seals, licenses, put all overseas accounts under the control of the Group, install five smart seal cartridges, and transfer overseas licenses to the archives of the Group for unified management.
數據與信息安全 Data and Information Security	強化系統權限梳理與操作日誌審計，2025 年完成 19 個信息安全具體實施細則的制定；Strengthen system permission sorting and operation log auditing. In 2025, completed the formulation of 19 specific implementation rules for information security.
氣候變化風險 Climate Change Risk	建立碳資產管理體系，推進能源管理數字平臺建設，制定應對物理風險與轉型風險的具體策略。Establish a carbon asset management system, promote the construction of a digital energy management platform, and formulate specific strategies to address physical and transition risks.

2025 年風險控制績效 2025 Risk Control Performance

通過自評自查、遵循檢查、風控數據應用、審計案件復盤，建立風險問題整改追蹤機製

梳理識別制度流程控制缺陷
329 項

制度流程缺陷整改計劃完成率
73%

識別出問題
851 項

問題整改計劃完成率
82%

累計處罰
79 人

Through self-assessment and self-inspection, compliance checks, risk control data application, and audit case reviews, a tracking mechanism for risk issue rectification was established. 329 control deficiencies in systems and processes were identified and sorted, with a rectification plan completion rate of 73%; 851 issues were identified, with a rectification plan completion rate of 82%, and a total of 79 individuals were penalized.

建立內控聯絡員組織單位
63 個

聯絡員
68 名

組織線下培訓
5 次

線下賦能輔導
69 場

An internal control liaison organization was established, comprising 68 liaisons across 63 units. 5 offline training sessions and 69 offline empowerment guidance sessions were conducted.

風險管理流程 Risk Management Process

風險評估 Risk Assessment

對影響戰略和經營目標的風險進行辨識、分析、評價；通過業務單元自主識別、自評、事件復盤識別風險點，結合發生概率與影響程度評定風險水平，定期根據控制有效性動態調整。

Identify, analyze, and evaluate risks affecting strategic and operational objectives; identify risk points through business unit self-identification, self-assessment, and incident review; assess risk levels based on probability of occurrence and degree of impact; dynamically adjust based on the effectiveness of controls periodically.

風險管理策略 Risk Management Strategy

結合內外部環境與發展戰略明確風險偏好、風險承受度，針對重大風險制定「承擔 - 規避 - 轉移 - 降低」組合應對策略，同步明確有效性標準與資源配置原則。

Define risk appetite and tolerance based on the internal and external environment and development strategy. Formulate combined response strategies of "Accept-Avoid-Transfer-Reduce" for significant risks, simultaneously clarifying effectiveness criteria and resource allocation principles.

風險應對方案 Risk Response Plan

針對風險清單與風險地圖中的風險點，搭建風控數據模型，並制定相關配套制定應對措施，明確責任主體與時間節點，定期跟蹤處理情況；已在採購價格、供應商管理等領域形成 41 個數據模型，定期監控分析並應用於業務場景。

For risk points identified in the risk inventories and risk map, develop risk control data models and formulate supporting measures. Clarify responsible parties and timelines, and track progress regularly. A total of 41 data models have been established in areas including procurement pricing and supplier management, which are monitored, analyzed and applied to business scenarios on a regular basis.

內部控制 Internal Control

將關鍵控制點融入業務流程與信息化系統，以數智化手段輔助風控決策；建立重大合規事件一票否決權制度，實行 SABCDE 六級強績效考核，以剛性約束強化內控執行；常態性內控通過定期檢查落地，底線性風險通過一票否決管控。

Integrate key control points into business processes and information systems, using digital intelligence to support risk control decisions. Establish a veto system for major compliance incidents and implement a stringent six-level (SABCDE) performance appraisal to enforce internal controls. Routine internal controls are carried out via regular inspections, while bottom-line risks are managed through veto control.

風險管理考核 Risk Management Assessment

風險管理部門定期檢查監督體系建設與執行情況，審計部門評價各單位風險管理效果，考核結果與績效掛鈎。

The risk management department regularly inspects and supervises system construction and implementation; the audit department evaluates the risk management effectiveness of each unit; assessment results are linked to performance.

「集團開展風險內控聯絡員培訓」
"Group Conducts Risk and Internal Control Liaison Training"

2025 年，為進一步健全集團大安全體系建設，加快構建保障集團業務健康發展的流程制度體系，壓緊壓實各單位流程製度體系建設的主體責任，宣傳貫徹相關工作要求，培訓相關工具表單使用，本集團開展了內控聯絡員的系列專題培訓活動，共三期，集團全轄內控聯絡員及內控條線成員線上或線下參會。

In 2025, to further enhance the Group's comprehensive safety system, speed up the development of a process and system framework that supports the sound development of the Group's business, strictly enforce with the primary responsibility of each unit for process and system development, communicate relevant work requirements, and deliver training on the application of relevant tools and forms, the Group organized a series of special training sessions for internal control liaisons. Three sessions were held in total, with internal control liaisons and personnel from the internal control line across the Group participating online or offline.

提升信息披露透明 Enhancing Information Transparency

透明生信，信達致遠。本集團深信，高質量、高透明度的信息披露是構建市場信任、強化公司治理與踐行受託責任的核心環節。我們嚴格遵循聯交所頒佈的《上市規則》《企業管治守則》及《ESG 報告守則》（附錄 C2）要求，秉持「真實、準確、完整、及時、公平」的披露原則，持續優化信息披露治理架構與執行機制。通過完善內部報告流程、強化董事會監督職能、拓展多元溝通渠道，確保財務與非財務信息協同披露，關鍵 ESG 績效可驗證、可追溯。我們致力於以透明溝通凝聚共識，以誠懇回應贏得信賴，為投資者決策提供可靠依據，為可持續發展注入確定性與公信力。

Transparency breeds trust, and trust sustains long-term success. The Group firmly believes that high-quality, highly transparent information disclosure is a core element in building market confidence, strengthening corporate governance, and fulfilling fiduciary responsibilities. We strictly comply with the *Listing Rules, Corporate Governance Code* and the *ESG Reporting Code* (Appendix C2) Published by the Stock Exchange. Adhering to the disclosure principles of authenticity, accuracy, completeness, timeliness, and fairness, we keep optimizing the governance structure and implementation mechanism for information disclosure. By improving internal reporting processes, strengthening the oversight role of Board of Directors, and expanding diversified communication channels, we ensure coordinated disclosure of financial and non-financial information, with key ESG performance being verifiable and traceable. We are committed to building consensus through transparent communication and earning trust through sincere responses, providing a reliable basis for investor decision-making and injecting certainty and credibility into sustainable development.

公司經營表現 Company Operating Performance

本集團嚴格遵循聯交所《上市規則》及《企業管治守則》關於財務與業務信息披露之要求，秉持「真實、準確、完整、及時、公平」原則，客觀呈報報告期內經營成果與戰略進展。以下內容基於經審計之 2025 年年度財務報告及董事會審議通過之業務數據，所有財務數據均以人民幣計量，詳情請參閱本集團於聯交所網站披露之《2025 年年度報告》。

The Group strictly adheres to the requirements of the Stock Exchange's *Listing Rules and Corporate Governance Code* regarding financial and business information disclosure. Upholding the principles of "truthfulness, accuracy, completeness, timeliness, and fairness," we objectively present the operating results and strategic progress during the reporting period. The following content is based on the audited 2025 Annual Financial Report and business data reviewed and approved by the Board of Directors. All financial data are measured in RMB. For details, please refer to the *2025 Annual Report* disclosed by the Group on the HKEX website.

2025 年核心財務表現
2025 Core Financial Performance

指標 Indicators	單位 Unit	2025
營業收入 Operating Revenue	人民幣億元 RMB 100 million	537.99
歸屬於母公司股東淨利潤 Profit attributable to shareholders of the parent Company	人民幣億元 RMB 100 million	14.37
總資產 Total Assets	人民幣億元 RMB 100 million	551.39
納稅總額 Total Taxes Paid	人民幣億元 RMB 100 million	38.24

ESG 信息披露機制 ESG Information Disclosure Mechanism

本集團嚴格遵循聯交所《ESG 報告守則》之「強制披露」與「不遵守就解釋」原則，建立系統化、規範化、可驗證的 ESG 信息披露治理體系，確保披露內容真實、準確、完整、及時、公平，切實履行對投資者及全體利益相關方的信息透明責任。

The Group strictly follows the "mandatory disclosure" and "comply or explain" principles of the Stock Exchange's *ESG Reporting Code*. We have established a systematic, standardized, and verifiable ESG information disclosure governance system to ensure that the disclosed content is true, accurate, complete, timely, and fair, effectively fulfilling our responsibility for information transparency to investors and all stakeholders.

治理架構與責任分工 Governance Structure and Responsibility Division

董事會統領責任 Overall Responsibilities of Board of Directors

董事會對 ESG 戰略及信息披露承擔最終責任，定期審議 ESG 報告框架、重大議題識別結果及關鍵績效數據，確保披露內容與戰略協同。

The Board of Directors bears the ultimate responsibility for ESG strategy and information disclosure, regularly reviewing the ESG report framework, materiality assessment results, and key performance data to ensure that the disclosed content aligns with the strategy.

ESG 工作小組 ESG Working Group

統籌全集團 ESG 數據收集、整合與初審，制定信息披露制度，明確各事業部、子公司數據提報節點與質量標準。

Coordinates the collection, integration, and preliminary review of ESG data across the Group, formulates information disclosure systems, and clarifies data submission timelines and quality standards for each business division and subsidiary.

職能部門協同 Functional Department Collaboration

財務部負責數據交叉核驗，合規部監督披露合規性，品牌傳播部管理對外發布渠道，形成「收集—審核—披露—反饋」閉環管理。

The Finance Department is responsible for data cross-verification, the Compliance Department supervises disclosure compliance, and the Brand Communications Department manages external distribution channels, forming a closed-loop management of "Collection-Review-Disclosure-Feedback."

2025 年信息披露績效 2025 Information Disclosure Performance

2024 年年度報告 2024 Annual Report	2024 年 ESG 報告 2024 ESG Report	2025 年中期報告 2025 Interim Report
1 份 unit	1 份 unit	1 份 unit

內幕消息公告 inside news announcements	海外監管公告 overseas regulatory announcements
5 份 unit	8 份 unit

信息披露合規培訓 Information Disclosure Compliance Training

本集團定期對公司董事、高級管理人員、公司總部各部門及分子公司的負責人以及信息披露條線的部門工作人員開展信息披露事務管理制度的培訓工作。由董事會秘書組織開展，將信息披露相關制度、合規方面的信息定期通報給實際控制人、控股股東、持股百分之五以上的股東。

The Group regularly conducts training on information disclosure management systems for the company's directors, senior management, heads of headquarters departments and branches and subsidiaries, and department staff involved in information disclosure. Organized by the Secretary of Board of Directors, information related to disclosure systems and compliance matters is regularly communicated to the ultimate controller, controlling shareholders, and shareholders holding more than five percent of the shares.

02

環境篇

Environmental Section

能馭綠源
推動綠色循環轉型

Harnessing Green Resources, Promoting Circular Transformation

本集團身為全球綠色能源領域的核心佈局者與解決方案供應商，緊扣「雙碳」戰略發展藍圖，以「驅動能源變革，締造綠色未來」為核心使命，將生態保護與低碳發展深度融入企業全域戰略體系。對標「十四五」綠色低碳發展與生態環境品質提升的核心要求，本集團持續深耕綠色技術創新、能源高效利用、循環經濟生態構建等關鍵領域，同時向社會全域傳播綠色低碳發展理念，推廣可持續的生產與生活模式，全面履行企業應對氣候變化的社會責任，矢志以產業之力為人類社會構建潔淨、和美、可持續的生態發展環境。

As a key player and solution provider in the global green energy sector, the Group closely aligns with the "Dual-Carbon" strategic blueprint. With the core mission of "Driving Energy Change, Creating a Green Future," we deeply integrate ecological protection and low-carbon development into the overall corporate strategic system. Benchmarking against the core requirements of green, low-carbon development and ecological environment quality improvement during the "14th Five-Year Plan" period, the Group continuously deepens its efforts in key areas such as green technology innovation, efficient energy utilization, and the construction of a circular economy ecosystem. Simultaneously, we actively disseminate green and low-carbon development concepts throughout society, promote sustainable production and lifestyle models, fully fulfill our corporate social responsibility in coping with climate change, and are committed to using industrial strength to build a clean, harmonious, and sustainable ecological development environment for human society.

服務「雙碳」目標 Serving the "Dual-Carbon" Goals

本集團以生態文明思想為根本遵循，作為「雙碳」戰略的堅定踐行者與產業推動者，嚴格落實《天能集團綠色低碳發展戰略規劃》核心要求，緊抓碳排放雙控轉型的產業機遇，系統推進全產業鏈的低碳轉型與綠色創新升級。通過持續完善氣候治理體系、強化精細化能源管理、深化循環經濟產業布局、賦能產業數字化發展等多維舉措，本集團在實現企業降本增效、高質量發展的同時，持續為中國綠色低碳產業發展注入堅實動能，切實履行產業龍頭企業的社會責任與產業擔當。

Guided by the thought on ecological civilization, the Group, as a firm practitioner and industry promoter of the "Dual-Carbon" strategy, strictly implements the core requirements of the *Tianneng Group Green and Low-Carbon Development Strategic Plan*. Seizing the industrial opportunities presented by the transition to dual control of carbon emissions, we systematically promote low-carbon transformation and green innovation upgrades across the entire industrial chain. Through multi-faceted initiatives such as continuously improving the climate governance system, strengthening refined energy management, deepening the circular economy industrial layout, and empowering industrial digital development, the Group not only achieves cost reduction, efficiency enhancement, and high-quality development but also continuously injects solid momentum into the development of China's green and low-carbon industry, effectively fulfilling the social responsibility and industrial commitment of a leading enterprise.

應對氣候變化 Addressing Climate Change

全球氣候治理體系深度調整，「雙碳」戰略向縱深推進，本集團深刻洞察到氣候變化作為影響全球經濟、社會與生態環境長遠發展的核心議題，對新能源電池產業而言，既是需要主動應對的行業挑戰，更是驅動技術創新、引領產業轉型升級的重大機遇。本集團將應對氣候變化工作全面融入企業戰略規劃與生產運營全流程，通過優化治理架構、精準識別並管控氣候相關風險與機遇、制定科學系統的發展戰略與階段性目標，系統性提升企業氣候韌性與綠色核心競爭力，致力於成為全球綠色能源解決方案的引領者與產業標杆。

Amidst the profound adjustment of the global climate governance system and the deepening advancement of the "Dual-Carbon" strategy, the Group fully recognizes that climate change is a core issue affecting the Long-term development of the global economy, society, and ecological environment. For the new energy battery industry, this represents both a challenge requiring proactive response and a significant opportunity to drive technological innovation and lead industrial transformation and upgrading. The Group fully integrates coping with climate change into its strategic planning and the entire production and operation process. By optimizing governance structures, accurately identifying and managing climate-related risks and opportunities, and formulating scientific and systematic development strategies and phased goals, we systematically enhance the enterprise's climate resilience and green core competitiveness, striving to become a leader and industry benchmark in global green energy solutions.

氣候管治 Climate Governance

本集團董事會對氣候相關事宜負有最高監督責任。為強化對氣候變化風險與機遇的戰略管理，董事會負責審定可持續發展及「雙碳」戰略、方針與目標，統籌整體推進，於年度業績董事會審議氣候相關議題，確保其獲得最高決策層的充分關注與資源支持。

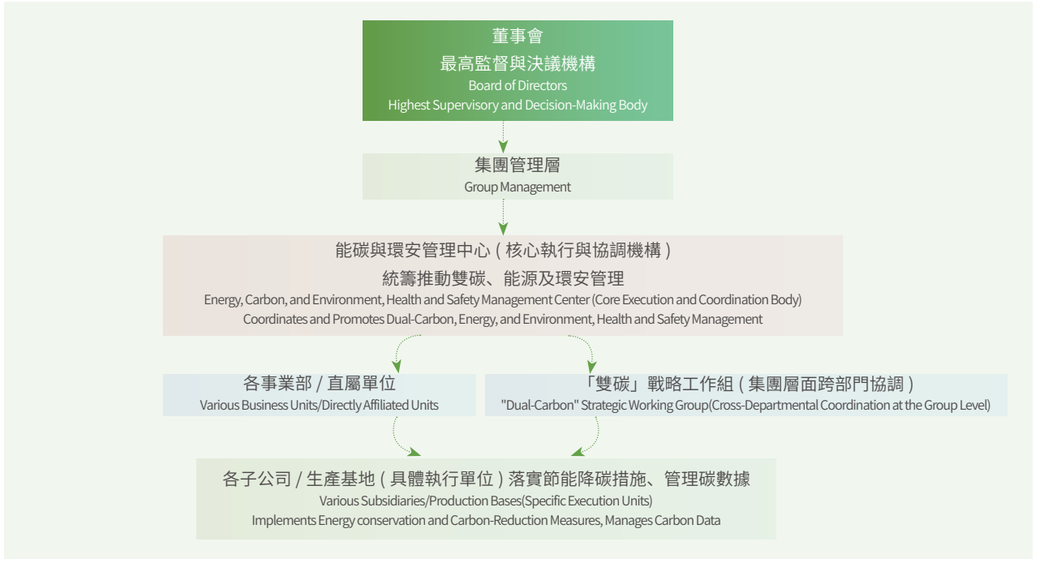
The board of directors of our group bears the highest supervisory responsibility for climate related matters. To strengthen strategic management of climate change risks and opportunities, the board of directors is responsible for approving sustainable development and "dual carbon" strategies, policies, and goals, coordinating overall progress, and reviewing climate related issues at the annual performance board meeting to ensure that they receive sufficient attention and resource support from the highest decision-making level.

管理層方面，本集團於2025年整合優化現有「雙碳」、能源、環安等職責分工，成立了實體化的「能碳與環安管理中心」。該中心作為專業執行機構，負責承接集團「雙碳」戰略，制定綠色低碳發展規劃，開展能源與碳排放管理，並推動具體減排措施落地。中心定期向管理層及董事會匯報工作進展、目標完成情況及氣候風險評估結果，確保管治流程的有效運作。本集團已製定董事及高級管理人員薪酬政策，主要與財務業績、經營目標等掛鉤。截至報告期末，本集團尚未將氣候相關考慮因素納入薪酬政策。未來將根據監管要求及業務發展需要，適時評估並優化相關安排。

At the management level, in 2025, the Group integrated and optimized the existing responsibilities for Dual-Carbon, Energy, and Environment, Health and Safety, establishing a substantive "Energy, Carbon, and EHS Management Center". As a professional execution body, this center is responsible for undertaking the Group's Dual-Carbon strategy, formulating green and low-carbon development plans, managing energy and carbon emissions, and promoting the implementation of specific emission reduction measures. The center regularly reports work progress, target completion status, and climate risk assessment results to the management and the Board of Directors, ensuring the effective operation of governance processes. The Group has formulated a remuneration policy for directors and senior management, which is mainly linked to financial performance, business objectives, etc. As of the end of the reporting period, the Group has not incorporated climate-related considerations into its remuneration policy. In the future, relevant arrangements will be evaluated and optimized in a timely manner based on regulatory requirements and business development needs.

集團氣候變化相關管治架構圖

Diagram of the Group's Climate Change Related Governance Structure



氣候策略

Climate Strategy

本集團認識到，氣候變化是影響全球經濟、社會及環境長期發展的核心議題，對新能源電池行業而言，既是嚴峻挑戰，也是驅動綠色創新、引領產業轉型的重要機遇。

The Group recognizes that climate change is a core issue affecting the Long-term development of the global economy, society, and environment. For the new energy battery industry, it represents both a serious challenge and a significant opportunity to drive green innovation and lead industrial transformation.

類別 Category	具體風險 / 機遇 Specific Risks/ Opportunities	潛在影響 Potential Impact	預期影響時間範圍 Expected Impact Timeframe	價值鏈影響層面 Value chain impact level	集團應對方向 / 措施摘要 Group Response Direction/Measure Summary
物理風險 Physical Risks	洪澇、颱風等極端降水 Floods, Typhoons and Other Extreme Precipitation	直接財產損失與運營中斷；供應鏈與物流受阻；可能引發化學品洩漏、廢水溢流等次生環境或安全事故。 Direct property damage and operational interruption; supply chain and logistics disruptions; potential secondary environmental or safety incidents such as chemical leaks and wastewater overflows.	短期 Short-term	上遊、整體運營 Upstream, Overall Operations	制定並定期演練防洪、防汛、防颱風專項應急預案；優化廠區排水系統；部署智能監控預警；儲備防汛物資與組建應急隊伍。 Formulate and regularly practice special emergency plans for flood control, waterlogging prevention, and typhoon prevention; optimize factory drainage systems; deploy intelligent monitoring and early warning; stockpile flood control materials and establish emergency response teams.
物理風險 Physical Risks	極端低溫與冰雪 Extreme Low Temperatures and Snow/Ice	設施凍損與洩漏導致設備停機；物料性能受到影響；廠區內外交通安全風險增加。 Equipment shutdown due to freezing damage and leaks; material performance affected; increased traffic safety risks inside and outside the factory premises.	短期 Short-term	上遊、整體運營 Upstream, Overall Operations	入冬前進行全面防凍檢查與維護；儲備融雪劑等應急物資；制定極寒天氣應急預案。 Conduct comprehensive pre-winter freeze prevention inspections and maintenance; stockpile emergency supplies such as de-icing salt; formulate emergency plans for extreme cold weather.
物理風險 Physical Risks	持續高溫與熱浪 Prolonged High Temperatures and Heatwaves	員工健康風險上升，生產效率與質量穩定性下降；設備冷卻負荷與故障率增加，降溫設施能耗上升；火災風險顯著升高。 Employee health risks increase, production efficiency and quality stability decline; equipment cooling load and failure rate increase, energy consumption for cooling facilities rises; fire risk significantly increases.	中期 / 長期 Medium-term/Long-term	整體運營 Overall Operations	部署車間通風散熱系統，提供防暑降溫保障；合理安排高溫作業時間；加強易燃物管理與電氣線路檢查；強化消防安全措施。 Deploy workshop ventilation and heat dissipation systems, provide heatstroke prevention and cooling guarantees; reasonably arrange working hours during high temperatures; strengthen flammable material management and electrical line inspections; enhance fire safety measures.
轉型風險 Transition Risks	政策與法規趨嚴 Policy and Regulatory Tightening	合規成本增加；技術升級壓力加大；投資回報周期可能延長。 Compliance costs increase; pressure for technological upgrades intensifies; investment return cycles may lengthen.	中期至長期 Medium to Long-Term	整體運營 Overall Operations	將「雙碳」提升至戰略核心，成立專責委員會；構建碳數據管理體系，主動規劃減排路徑；推動節能改造與清潔能源部署。 Elevate Dual-Carbon to the strategic core, establish a dedicated committee; build a carbon data management system, proactively plan emission reduction pathways; promote energy conservation renovations and clean energy deployment.
轉型風險 Transition Risks	技術路線競爭 Technological Pathway Competition	現有技術面臨替代風險；影響研發資源分配與產能投資決策。 Existing technologies face substitution risks; impacts R&D resource allocation and production capacity investment decisions.	中期至長期 Medium to Long-Term	整體運營 Overall Operations	持續投入研發，布局鋰離子電池、固態電池、鈉離子電池、氫燃料電池等多元技術路線，加速新業務市場化。 Continuously invest in R&D, deploy multiple technology routes including Li-ion batteries, hydrogen fuel, sodium-ion, and solid-state batteries, accelerating the marketization of new businesses.
轉型風險 Transition Risks	市場與供應鏈 Market and Supply Chain	客戶 ESG 相關要求成為市場壁壘；原材料價格劇烈波動影響成本與盈利。 Customer ESG requirements become market barriers; sharp fluctuations in raw material prices affect costs and profitability.	中期 Medium-term	上遊、下遊 Upstream, Downstream	開展產品碳足跡核算，提供低碳解決方案；構建綠色採購標準；強化「生產 - 回收 - 再生」一體化產業鏈，應對原材料價格大幅波動風險。 Conduct product carbon footprint accounting, provide low-carbon solutions; establish green procurement standards; strengthen the integrated industrial chain of "production-recycling-regeneration" to resist resource risks.

機遇 Opportunities	綠色低碳產品需求穩步提升 Growing demand for green and low-carbon products	電動化及清潔能源轉型持續推動動力電池及儲能相關產品需求增長，為相關業務發展帶來新的市場機遇。 Electrification and clean energy transition consolidate demand for power batteries and open up huge market space for energy storage business.	中期 Medium-term	下遊 Downstream	戰略聚焦「動力 + 儲能」雙核驅動，提供綠色能源系統解決方案。 Strategically focus on the "Power&Energy Storage" dual-core drive, providing green energy system solutions.
	循環經濟價值逐步顯現 Circular economy value becomes prominent	隨著資源循環利用體系不斷完善，廢舊電池回收再生業務在保障資源供應、促進降本增效及提升產業協同方面的價值進一步提升。 Waste battery recycling and regeneration business transforms from a cost center to a competitive advantage and profit center.	中期 Medium-term	上遊、下遊 Upstream, Downstream	深化「鉛 + 鋰」雙循環生態圈布局，優化回收再生全流程，將循環經濟優勢轉化為商業價值。 Deepen the layout of the "Lead&Lithium" dual circular ecosystem, optimize the entire recycling and regeneration process, and transform circular economy advantages into commercial value.
	數智化助力與運營提質增效 Digitalization and operational efficiency improvement	市場對智能化、低碳化運營的需求持續提升，推動企業運用數字技術優化生產與管理流程，提升節能減排及運營效率。 Market demand for intelligent and low-carbon operations drives the achievement of energy conservation and emission reduction, cost reduction, and efficiency enhancement through digital technologies.	長期 Long-term	整體運營 Overall Operations	推動「能碳數字化管理平臺」建設，利用 AI、物聯網等技術提升生產智能化水平與資源利用效率。 Promote the construction of the "Energy-Carbon Digital Management Platform," utilizing AI, IoT, and other technologies to enhance production intelligence levels and resource utilization efficiency.

氣候風險識別和管理
Climate-related Risk Identification and Management

本集團已建立系統化的流程，用於識別、評估、排序及持續監察氣候相關風險與機遇，並將其融入整體風險管理框架。

The Group has established a systematic process for identifying, assessing, prioritizing, and continuously monitoring climate-related risks and opportunities, integrating them into the overall risk management framework.

風險識別與評估 Risk Identification and Assessment

通過《天能集團綠色低碳發展戰略規劃》系統識別了國內外政策風險、供應鏈應對風險和能源轉型風險，並建立多維度風險預警體系。評估過程考慮風險發生的可能性、潛在財務影響及時間範圍（短期為 1-3 年，中期為 3-5 年，長期為 5 年以上）。

Through the *Tianneng Group Green and Low-Carbon Development Strategic Plan*, systematically identified domestic and international policy risks, supply chain response risks, and energy transition risks, and established a multi-dimensional risk early warning system. The assessment process considers the likelihood of risk occurrence, potential financial impact, and time horizon (Short - term is 1 - 3 years, medium - term is 3 - 5 years, and long - term is over 5 years)

機遇管理 Opportunity Management

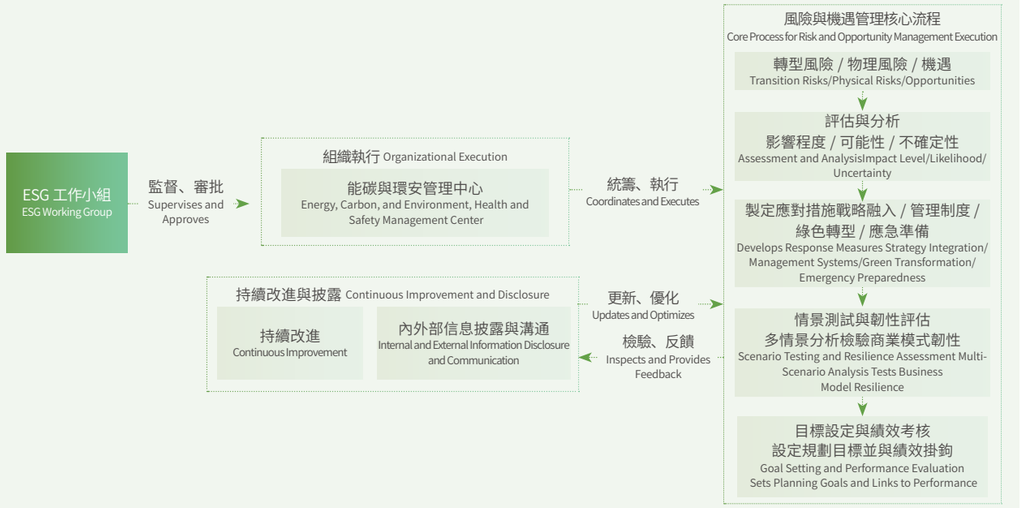
通過開展低碳發展情景潛力評估，識別各業務板塊的達峰路徑與降碳潛力，並規劃在碳核算、智慧化管理、技術升級、綠色供應鏈、可再生能源使用等關鍵領域深入實踐，以把握市場機遇，提升全球競爭力。

By conducting low-carbon development scenario potential assessments, identified peak pathways and carbon reduction potential for each business segment, and planned in-depth practice in key areas such as carbon accounting, intelligent management, technological upgrading, green supply chains, and renewable energy utilization to seize market opportunities and enhance global competitiveness.

整合與監察 Integration and Monitoring

氣候風險管理流程由「能碳與環安管理中心」主導，並與集團現有的環境、健康與安全管理體系及運營風險管理流程相整合。管理層定期審查風險登記冊及應對措施的有效性。

The climate risk management process is led by the Energy, Carbon, and EHS Management Center and is integrated with the Group's existing environmental, health and safety management systems, and operational risk management processes. Management regularly reviews the risk register and the effectiveness of response measures.



基於 LEC 風險分級體系
Based on LEC Risk Classification System

本集團針對新能源電池製造與回收過程中固有的高溫作業風險等，將其識別為重要的物理風險管理點。集團並未停留在風險描述層面，而是通過系統化的風險評估工具與分級管控機制，將抽象的氣候風險轉化為具體、可操作的現場管理行動。	The Group identifies inherent risks in the new energy battery manufacturing and recycling process, such as high-temperature operation risks, as important physical risk management points. The Group does not stop at risk description but transforms abstract climate risks into specific, actionable on-site management actions through systematic risk assessment tools and a hierarchical control mechanism.
風險精準量化：集團全面應用 LEC 風險評價法，對包括高溫作業在內的所有作業活動進行量化風險評估。該方法從事故可能性（L）、暴露頻率（E）、後果嚴重性（C）三個維度評分，計算出風險值（D）並劃分為重大（紅）、較大（橙）、一般（黃）、低（藍）四個等級。	Risk Precise Quantification: The Group comprehensively applies the LEC Risk Evaluation Method to conduct quantitative risk assessments for all operational activities, including high-temperature operations. This method scores from three dimensions: Likelihood of accident (L), Frequency of exposure (E), and Severity of consequences (C), calculating the risk value (D) and dividing it into four levels: Major (Red), Larger (Orange), General (Yellow), and Low (Blue).
風險可視化管理：評估結果並非束之高閣。各子公司將評估出的不同等級風險，用「紅、橙、黃、藍」四色標示在廠區總平面佈置圖上，形成直觀的《安全風險四色分佈圖》，讓各級管理者和一線員工對現場風險等級與分佈一目了然。	Risk Visualization Management: Assessment results are not shelved. Subsidiaries mark the different levels of risk assessed using the four colors "Red, Orange, Yellow, Blue" on the general layout plan of the plant area, forming an intuitive *Safety Risk Four-Color Distribution Map*, allowing managers at all levels and frontline workers to understand the on-site risk levels and distribution at a glance.
風險動態更新：集團建立了風險辨識動態更新機制，定期審視包括高溫在內的各類風險，結合設備更新、工藝改進及氣候變化新趨勢，及時調整風險等級與管控措施，確保風險管控的時效性與精準性。	Risk Dynamic Update: The Group has established a dynamic risk identification update mechanism, regularly reviewing various risks including high temperatures. Combining equipment updates, process improvements, and new trends in climate change, it timely adjusts risk levels and control measures, ensuring the timeliness and accuracy of risk management and control.

案例 Case 零碳工廠建設 Construction of Zero-Carbon Factory

2025 年，本集團以旗下貴州能源科技有限公司（臺江基地）零碳工廠建設為核心推進碳抵消工作，4 月 15 日向貴州臺江福林森科技造林專業合作社購入 7,500 噸林業碳匯，搭配此前購置的 22 萬張綠證（對應抵消 11 萬噸碳排放）、1.25 萬噸外購碳匯，以及基地 7.5 兆瓦光伏項目年減排的 6,303 噸二氧化碳，累計實現碳抵消 12.8 萬噸，超過工廠 12 萬噸的年碳排放量，助力基地獲得必維國際檢驗集團零碳工廠認證。

In 2025, the Group advanced its carbon offset efforts centered on constructing the zero-carbon factory. On April 15th, it purchased 7,500 tons of forestry carbon sinks from the Guizhou Taijiang Fulinsen Technology Afforestation Cooperative, along with the previously purchased 220,000 green certificates (offsetting 110,000 tons of carbon emissions), 12,500 tons of externally purchased carbon sinks, and the 6,303 tons of carbon dioxide reduced annually by the base's 7.5 MW photovoltaic project, achieving a total cumulative carbon offset of 128,000 tons, exceeding the factory's annual carbon emissions of 120,000 tons, and facilitating the base's certification as a zero-carbon factory by Bureau Veritas

貴州公司通過認證成為集團首家「零碳工廠」
Guizhou Company obtained certification, becoming the Group's first "Zero-Carbon Factory"

指標與目標
Indicators and Targets

本集團持續加強溫室氣體排放管理。2025 年，通過深化與中國環境科學研究院等機構的合作，動態更新碳家底數據庫，為滿足中國「碳雙控」要求及制定減排路徑奠定了堅實基礎。

The Group continuously strengthens greenhouse gas emission management. In 2025, by deepening cooperation with institutions such as the Chinese Research Academy of Environmental Sciences, it dynamically updated the carbon baseline database, laying a solid foundation for meeting China's "dual control over the amount and intensity of carbon emissions" requirements and formulating emission reduction pathways.

本集團已參考「巴黎協定」制定碳減排目標，並完成了《天能集團綠色低碳發展戰略規劃》的製定。

The Group has set carbon reduction targets with reference to the "Paris Agreement" and the *Tianneng Group Green and Low-Carbon Development Strategic Plan*.

方向性目標 Directional Target	具體指標 Specific Indicator	時間長度 Time Frame	適用範圍 Scope of Application	2025 年完成情況 2025 Completion Status	行動計劃 Action Plan
實現碳達峰 Achieve Carbon Peak	集團整體碳排放達到峰值 The Group's overall carbon emissions reach peak	長期 Long-term	全集團 Entire Group	已編製《綠色低碳發展戰略規劃》 The *Green and Low-Carbon Development Strategic Plan* has been formulated.	持續推進節能技改、能源結構優化、循環經濟布局及數字化賦能。 Continuously promote energy conservation technological transformation, energy structure optimization, circular economy layout, and digital empowerment.
降低碳排放強度 Reduce carbon emission intensity	單位產值或產品的碳排放量下降 Decrease in carbon emissions per unit of output value or product	中期 Medium-term	生產運營單位 Production operation units	2025 年單位產品碳排放強度實現約 12% 的下降。 In 2025, the carbon emission intensity per unit product will decrease by around 12%.	推進 7 項節能降碳協同技改項目；深化能碳數字化平臺部署，實現精細化管理。 Promote 7 collaborative energy conservation and carbon reduction technological transformation projects; deepen the deployment of the energy-carbon digital platform to achieve refined management.
深化節能降耗 Deepen energy conservation and consumption reduction	綜合能耗下降比例；單位能源費用下降 Reduction rate in comprehensive energy consumption; reduction in energy cost per unit	中期 Medium-term	各事業部及生產基地 Various business divisions and production bases	2025 年通過系統化能源管理，實現總能耗強度下降約 1.2%。 By implementing systematic energy management in 2025, achieve an approximately 1.2% reduction in the total energy consumption intensity.	出臺《能源管理體系總則》，推行定額管理與考核；在鉛蓄基地 10 家、循環基地 1 家部署能碳平臺；精準識別並改造高能耗工藝環節。 Issued the *General Rules for Energy Management System*, implemented quota management and assessment; deployed the energy-carbon platform in 10 lead-acid bases and 1 recycling base; precisely identified and transformed high-energy-consumption process links.
構建零碳標杆 Build zero-carbon benchmarks	零碳工廠認證數量；清潔能源使用比例 Number of zero-carbon factory certifications; proportion of clean energy utilization	持續推進 Continuous promotion	重點生產基地 Key production bases	貴州能源科技（臺江基地）通過購買綠證、碳匯及結合廠區光伏，實現年度碳中和，獲得必維國際檢驗集團零碳工廠認證。 Guizhou Energy Technology (Taijiang Base) achieved annual carbon neutrality through purchasing green certificates, carbon sinks, and combining with on-site photovoltaics, obtaining zero-carbon factory certification from Bureau Veritas.	推廣「零碳工廠」建設模式，綜合運用節能技術改造、廠區光伏部署、綠電 / 綠證採購及碳匯抵消組合策略。 Promote the "zero-carbon factory" construction model, comprehensively applying a combination strategy of energy conservation technological transformation, on-site photovoltaic deployment, green power/green certificate procurement, and carbon sink offsetting.

方向性目標 Directional Target	具體指標 Specific Indicator	時間長度 Time Frame	適用範圍 Scope of Application	2025 年完成情況 2025 Completion Status	行動計劃 Action Plan
強化循環減碳 Strengthen circular carbon reduction	關鍵材料（鉛、塑料等）回收率；廢棄物資源化水平 Recovery rate of key materials (lead, plastics, etc.) ; level of waste resource utilization	持續運營 Continuous operation	循環經濟業務板塊 Circular economy business segment	已建成「生產 - 銷售 - 回收 - 再生 - 再利用」一體化鉛蓄電池閉環產業鏈，實現關鍵材料 99% 以上的回收率。 Has established a closed-loop industrial chain for lead-acid batteries integrating “production, sales, recycling, regeneration and reuse”, achieving a recovery rate of over 99% for key materials..	持續優化回收網絡與再生技術，打造「鉛 + 鋰」雙循環生態圈，將廢舊電池資源化，減少對原生礦產的需求與相關碳排放。 Continuously optimize the recycling network and regeneration technologies, build a “Lead&Lithium” dual circular ecosystem, recycle waste batteries into resources, and reduce the demand for primary minerals and related carbon emissions.
推動綠色產品與技術創新 Promote green product and technology innovation	減 / 零碳產品研發與應用；減碳技術設備推廣 R&D and application of reduced/zero-carbon products; promotion of carbon reduction technology and equipment	持續研發與市場化 Continuous R&D and marketi-zation	研發與產品部門 R&D and product departments	在固態電池、鈉離子電池、氫燃料電池等下一代零碳技術取得研發進展並實現場景化應用；儲能系統解決方案在多個大型項目落地。 Achieved R&D progress and scenario-based applications in next-generation zero-carbon technologies such as solid-state batteries, sodium-ion batteries, and hydrogen fuel cells; energy storage system solutions implemented in multiple large-scale projects.	持續高強度研發投入，布局前沿零碳能源技術；將清潔技術創新內化為核心戰略，推動成熟綠色技術向行業輸出。 Continuously invest heavily in R&D, deploy cutting-edge zero-carbon energy technologies; internalize clean technology innovation as a core strategy, and promote mature green technologies to the industry.

2025 年溫室氣體排放績效表

2025 Greenhouse Gas Emissions Performance Table

指標名稱 Indicator Name	單位 Unit	2025
範圍一溫室氣體排放量 Scope 1 Greenhouse Gas Emissions	噸二氧化碳當量 Tons of CO_2 equivalent	288,018.95
範圍二溫室氣體排放量 Scope 2 Greenhouse Gas Emissions	噸二氧化碳當量 Tons of CO_2 equivalent	2,035,268.22
範圍一 + 範圍二溫室氣體排放總量 Scope 1+ Scope 2 Total Greenhouse Gas Emissions	噸二氧化碳當量 Tons of CO_2 equivalent	2,323,287.17

備註：根據《溫室氣體核算體系：企業核算與報告標準（2024 年）》計量溫室氣體排放。

Note: Measure greenhouse gas emissions in accordance with the *Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard (2024)*.

資源節約與能源利用 Resource Conservation and Energy Utilization

本集團深刻認識到能源管理是踐行綠色低碳發展、實現「雙碳」目標的核心支撐。我們致力於構建系統化、精細化的能源管理體系，通過完善管理機制、推進能源結構轉型、實施節能技術改造及數字化賦能，持續挖掘節能降碳潛力，將能源管理從「合規成本中心」向「安全、綠色、能效價值中心」全面躍升，以能源優化驅動集團高質量發展。

The Group deeply recognizes that energy management is the core support for practicing green and low-carbon development and achieving the "Dual-Carbon" goals. We are committed to building a systematic and refined energy management system. By improving management mechanisms, promoting energy structure transformation, implementing energy conservation technological renovations, and digital empowerment, we continuously explore the potential for energy conservation and carbon reduction, comprehensively upgrading energy management from a "compliance cost center" to a "safety, green, energy efficiency value center," driving the Group's high-quality development through energy optimization.

能源使用的基本情況

Basic Information on Energy Utilization

為系統性提升能源利用效率，本集團持續強化能源管理的頂層設計與組織保障，明確能源管理作為「雙碳」目標落地核心載體、降本增效關鍵引擎的戰略定位。

To systematically improve energy utilization efficiency, the Group continuously strengthens the top-level design and organizational guarantee for energy management, clarifying the strategic positioning of energy management as the core carrier for implementing Dual-Carbon goals and the key engine for cost reduction and efficiency enhancement.

本集團已設立三級能源管理組織架構：集團總部設有「能碳與環安管理中心」，統籌集團能源與「雙碳」戰略；各事業部下設職能部門，統籌事業部內裝備改造及能源管理；子公司設工程設備部，具體執行能源管理工作。報告期內，集團系統出臺《能源管理體系總則》，推行能源消耗定額管理與考核激勵制度，將節能指標層層分解至各單位及各崗位，構建了從集團到崗位的責任鏈條。

The Group has established a three-tier energy management organizational structure: The Group headquarters has the "Energy, Carbon, and EHS Management Center" coordinating the Group's energy and Dual-Carbon strategies; each business division has functional departments coordinating equipment transformation and energy management within the division; subsidiaries have Engineering Equipment Departments specifically executing energy management work. During the reporting period, the Group systematically issued the *General Rules for Energy Management System*, implementing energy consumption quota management and assessment incentive systems, decomposing energy conservation indicators layer by layer to each unit and position, building a responsibility chain from the Group to individual positions.

本集團高度重視能源管理的標準化與國際化。報告期末，主要子公司均已通過能源管理體系（ISO 50001）認證。同時，集團嚴格遵守《用能單位能源計量器具配備和管理通則》（GB 17167-2006）等標準，完善各級能源計量器具配置，為精細化管理奠定了數據基礎。

The Group attaches high importance to the standardization and internationalization of energy management. At the end of the reporting period, major subsidiaries have obtained Energy Management System (ISO 50001) certification. Simultaneously, the Group strictly complies with standards such as the Group strictly adheres to standards such as the *General Rules for the Equipping and Management of Energy Measuring Instruments in Energy-using Units* (GB 17167 - 2006), improving the allocation of energy measuring instruments at all levels, laying a data foundation for refined management.

子公司能源管理體系認證證書（部分）

Subsidiary Energy Management System Certificates (Partial)

2025 年能源績效

2025 Energy Performance

指標名稱 Indicator Name		單位 Unit	2025
能源消耗總量 Total Energy Consumption		噸標準煤 Tons of Standard Coal	583,843.75
直接能源消耗總量 Total direct energy consumption		噸標準煤 Tons of Standard Coal	95,839.28
直接能源消耗 Direct Energy Consumption	汽油 Gasoline	噸標準煤 Tons of Standard Coal	195.23
	柴油 Diesel	萬噸標準煤 Tons of Standard Coal	768.98
間接能源消耗	電力消耗總量 Total Electricity Consumption	萬千瓦時 10,000 kWh	353,895.62
	可再生能源電力消耗量 Renewable Energy Electricity Consumption	萬千瓦時 10,000 kWh	10,975.88
	可再生能源電力消耗量佔總能耗比例 The proportion of renewable energy electricity consumption in total energy consumption	%	2.31
能源消耗強度 Energy Consumption Intensity		千克標準煤 / 萬元人民幣營收 kg standard coal/Revenue in RMB 10,000	108.52

備註：各事業部在能源管理層面進展頗有成效，如鉛蓄電池事業部 2025 年綜合能耗下降約 5%，資源循環事業部通過技改實現降耗約 3,000 噸標煤，整體能效管理取得積極進展。

Note: All business divisions have achieved fruitful results in energy management. For example, the Lead-Acid Products Business Division achieved a reduction of approximately 5% in comprehensive energy consumption in 2025, and the Resource Recycling Business Division cut energy consumption by about 3,000 tons of standard coal through technological transformation, with overall positive progress in energy efficiency management.

清潔能源使用情況

Utilization of Clean Energy

本集團將提升清潔能源與可再生能源使用比例作為能源低碳轉型的關鍵路徑，通過多元化舉措優化用能結構。

The Group regards increasing the proportion of clean energy and renewable energy utilization as a key pathway for low-carbon energy transformation, optimizing the energy consumption structure through diversified initiatives.

可再生能源發電與應用 Renewable Energy Generation and Application

集團大力推進分佈式光伏發電項目的建設與應用：

The Group vigorously promotes the construction and application of distributed photovoltaic power generation projects:

鋰電事業部南太湖基地的 8 兆瓦光伏項目，2025 年發電超 800 萬度，約佔該基地總用電量的 20%，產生經濟收益約 160 萬元。

The 8 MW photovoltaic project at the Li-ion Battery Division's South Taihu Base generated over 8 million kWh in 2025, accounting for approximately 20% of the base's total electricity consumption, generating economic benefits of about RMB 1.6 million.

天能馬鞍山光伏項目，總規模 16.39MW，2025 年發電 1,664 萬度，降本約 316 萬元。

The Tianneng Ma'anshan photovoltaic project, with a total scale of 16.39 MWh, generated 16.64 million kWh in 2025, reducing costs by approximately RMB 3.16 million.

江蘇天能資源循環科技有限公司規劃建設 4.94MW 光伏項目，預計年發電量 500 萬 kWh，可減少二氧化碳排放約 2,653 噸。

Jiangsu Tianneng Resource Recycling Technology Co., Ltd. plans to construct a 4.94 MW photovoltaic project, with an expected annual power generation of 5 million kWh, which could reduce carbon dioxide emissions by approximately 2,653 tons.

綠色電力與憑證採購 Green Power and Certificate Procurement

為支持生產運營的低碳化，集團積極採購綠色電力及相關憑證。例如，旗下貴州能源科技有限公司（臺江基地）在建設「零碳工廠」過程中，通過購入 22 萬張綠證，對應抵消了約 11 萬噸碳排放，成為集團首家通過國際機構認證的零碳工廠。

To support the low-carbonization of production operations, the Group actively procures green power and related certificates. For example, its subsidiary Guizhou Energy Technology Co., Ltd.(Taijiang Base), during the construction of the "zero-carbon factory," offset approximately 110,000 tons of carbon emissions by purchasing 220,000 green certificates, becoming the Group's first zero-carbon factory certified by an international body.

「零碳工廠」
Guizhou Energy Taijiang Base "Zero-Carbon Factory"

能源終端清潔化 Clean Transition of End-use Energy

在運營環節，集團推動設備能源驅動方式的清潔化轉型，例如將柴油叉車替換為電動叉車，直接減少運營過程的化石能源消耗與碳排放。

In operational links, the Group promotes the clean transformation of equipment energy driving methods, such as replacing diesel forklifts with electric forklifts, directly reducing fossil energy consumption and carbon emissions in operations.

柴油叉車改電動智能叉車
Diesel Forklift Replaced with Electric Intelligent Forklift

2025 年清潔能源績效

2025 Clean Energy Performance

指標名稱 Indicator Name	單位 Unit	2025
清潔能源使用總量 Total Clean Energy Consumption	噸標准煤 Ton of standard coal	13,489.38

能源節約目標及具體措施

Energy Conservation Targets and Specific Measures

能源節約目標 Energy Conservation Targets

本集團制定了系統性的能源節約與低碳發展目標，並將其納入戰略規劃與考核體系。

The Group has established systematic energy conservation and low-carbon development targets, and incorporated them into its strategic planning and assessment system.

戰略目標 Strategic Target

以 2030 年建成「全域覆蓋、智能高效、價值凸顯」的能源管理體系為願景，追求單位產值能耗行業領先。

Aim to establish by 2030 an "all-region coverage, intelligent and efficient, value-prominent" energy management system, pursuing industry-leading energy consumption per unit of output value.

年度與中期目標 Annual and Medium-term Targets

各事業部依據集團總體要求，分解制定年度降耗目標。例如，各下屬事業部 2026 年目標為綜合能耗同比下降 3-5%。

Annual and Medium-term Targets: All business divisions decompose and formulate annual consumption reduction targets based on the Group's overall requirements. For example, the Company's subsidiary business units have set a 2026 target of reducing overall energy consumption by 3–5% year-on-year.

能源管理是綠色低碳的重要支撐
Energy management is a crucial support for green and low-carbon development

完善能源管理機製 Improve energy management mechanisms	推進能源低碳轉型 Promote low-carbon energy transition	強化精細化生產 Strengthen refined production
設立《能源管理體系總則》 Establish the *General Principles of Energy Management System*	能碳平臺搭建部署，鉛蓄基地 10 家 Build and deploy energy and carbon management platforms, covering 10 lead-acid bases	能源計量，試點到全覆蓋 Energy metering, from pilot to full coverage
推行能源消耗定額管理與考核激勵製度 Implement energy consumption quota management and assessment incentive systems	能碳平臺搭建部署循環基地 1 家 Deploys Carbon Management Platform, Establishes One Recycling Base	精準識別高能耗工藝環節 Accurately identify high-energy-consumption processes and links
節能指標層層分解至各單位、各崗位 Decompose Energy conservation targets to all departments and positions level by level	支撐能源降耗與碳減排決策 Support decision-making on energy consumption reduction and carbon emission reduction	挖掘能耗降低潛力 Explore potential for energy consumption reduction

構建係統化、精細化能源管理體系 , 最大化釋放能源價值
Establish a systematic and refined energy management system to maximize the value of energy.

以能源優化啟新程，挖掘節能潛力
Embarking on a New Journey with Energy Optimization during the "Ninth Five-Year Plan" Period, Exploring Energy conservation Potential

具體節能措施 Specific Energy Conservation Measures

本集團高度重視能源管理，將能源安全前置化、制度化，在穩固的運營基礎上，系統性地推進各類主動性的能源管理措施。這些措施超越了單一的應急響應，聚焦於通過技術革新、工藝優化和系統協同，從源頭和過程中實現能源的節約與高效利用。

The Group attaches great importance to energy management, prioritizing and institutionalizing energy security. On the basis of stable operation, it systematically promotes various proactive energy management measures. These measures go beyond simple emergency response, focusing on achieving energy conservation and efficient utilization at the source and throughout the process through technological innovation, process optimization, and system synergy.

案例 Case 能源管理數字化平臺全面部署與組織協同啟動
Comprehensive Deployment of Energy Management Digital Platform and Launch of Organizational Synergy

本集團持續推進能源管理體系建設，推動能源管理由分散化向集中化、數字化轉型。2025 年，本集團啟動能源管理數字化平臺建設及相關組織協同工作，圍繞能源基礎數據梳理、管理機制完善及重點任務推進，進一步夯實能源精細化管理基礎。通過推動平臺覆蓋、強化跨層級協同及清單化管理，本集團持續挖掘節能降碳潛力，為後續提升能源使用效率與運營效能提供支撐。

The Group continues to advance the development of its energy management system, driving the transition of energy management from a decentralized to a centralized and digitalized model. In 2025, the Group launched the development of a digital energy management platform alongside related organizational coordination initiatives, focusing on the consolidation of foundational energy data, the improvement of management mechanisms, and the advancement of priority tasks, thereby further strengthening the foundations for refined energy management. By driving platform coverage, reinforcing cross-level coordination, and implementing checklist-based management, the Group continues to unlock energy conservation and carbon reduction potential, providing support for subsequent improvements in energy utilization efficiency and operational performance.

能源管理交流座談會現場照片
On-site Photo of the Energy Management Exchange Symposium

集團圍繞「節能降碳 - 成本優化 - 價值增值」的閉環邏輯，實施了多元化、項目化的節能措施，涵蓋技術改造、工藝優化、能源回收及系統管理等多個維度。

Centering on the closed-loop logic of "energy conservation and carbon reduction-cost optimization-value addition," the Group implements diversified, project-based energy conservation measures covering multiple dimensions including technological transformation, process optimization, energy recovery, and system management.

措施類型 Type of Measures	具體措施實例 Specific Examples of Measures	關鍵效果 Key Effects
節能技術改造 Innovation of Energy-Saving Technologies	昊楊科技試點推廣高效節能電機替代，提升用能設備運行效率。 Haoyang Technology has piloted the promotion of high-efficiency energy-saving motor replacement to improve the operating efficiency of energy-consuming equipment. 持續優化鉛蓄電池生產工藝，減少生產過程中的能源及物料消耗。 Continuously optimize the production process of lead-acid batteries to reduce energy and material consumption during production.	預計節能 8%-10%。 Expected to save 8-10% energy 工藝優化項目年降本約人民幣 150 萬元。 Process optimization project achieved annual cost reduction of approximately RMB 1.5 million.
餘熱餘壓回收利用 Recovery and Utilization of Waste Heat and Residual Pressure	鉛蓄電池回收相關環節推進餘熱回收利用，提高能源綜合利用效率。 Promote waste heat recovery and utilization in the links related to lead-acid battery recycling, so as to improve the efficiency of comprehensive energy utilization. 在鋰離子電池相關業務環節開展廢氣餘熱回收利用，服務生產系統用能需求。 Waste gas and waste heat recovery and utilization are implemented in the business links related to Li-ion batteries to meet the energy demand of the production system. 推進蒸汽冷凝水及生產回用水循環利用，提升水資源使用效率。 Promote the recycling of steam condensate and industrial reused water to improve the efficiency of water resource utilization.	部分基地餘熱外售蒸汽 3.59 萬噸，降本超人民幣 350 萬元。 Some bases sold 35,900 tons of surplus heat steam to external parties, reducing costs by more than RMB 3.5 million. 中水、濃水、餘熱回用項目規劃降本約人民幣 200 萬元。 The projects for recycling reclaimed water, concentrated water and waste heat are planned to reduce costs by approximately RMB 2 million.
能源管理系統建設 Construction of Energy Management System	推進能碳數字化管理平臺部署，已在 10 餘家基地搭建。 Promote the deployment of an energy and carbon digital management platform, which has been established in more than 10 bases. 鋰電基地投入能源管理平臺，監測能耗與產能。 A Li-ion battery base has put into operation an energy management platform to monitor energy consumption and production capacity.  能碳數字化管理平臺 Energy and carbon digital management system	實現能耗實時監控、異常預警與能效分析，支撐降耗決策。旗下濮陽基地應用後實現降耗約 10%。 Realize real-time energy consumption monitoring, anomaly early warning and energy efficiency analysis to support decision-making for energy consumption reduction. After application at its Puyang base, energy consumption has been reduced by approximately 10%.  濮陽基地 Puyang Base

措施類型 Type of Measures	具體措施實例 Specific Examples of Measures	關鍵效果 Key Effects
能源結構優化 Optimization of Energy Structure	擴大廠區光伏發電建設規模。 Expansion of photovoltaic power generation construction scale in factory area	提升清潔能源佔比，直接減少範圍 2 碳排放。馬鞍山光伏項目年發電 1,664 萬度，降本超人民幣三百萬元。天能濮陽公司光伏項目裝機總規模達 21.4MW。 Increase the proportion of clean energy to directly reduce Scope 2 carbon emissions. The Ma'anshan photovoltaic project generated 16.64 million kWh annually, reducing costs by over RMB 3 million. The total installed capacity of the photovoltaic project of Tianneng Puyang Company reaches 21.4 MW.
	 天能濮陽公司光伏項目 Tianneng Puyang Company Photovoltaic Project	
	採購綠色電力證書。 Procurement of green electricity certificates	
	柴油叉車改為電動叉車。 Replacement of diesel forklifts with electric forklifts	

循環經濟 Circular Economy

本集團深刻認識到循環經濟是實現資源永續利用、應對氣候變化和履行企業環境責任的核心路徑。我們以「綠色智造·責任運營·低碳循環」為理念，將循環經濟原則全面融入集團戰略與運營，致力於構建覆蓋電池全生命週期的綠色生態閉環，推動從「資源 - 產品 - 廢棄物」的線性模式向「資源 - 產品 - 再生資源」的循環模式轉型，在創造經濟價值的同時，最大限度地減少對環境的影響。

The Group deeply recognizes that the circular economy is the core path to achieving sustainable resource utilization, coping with climate change, and fulfilling corporate environmental responsibility. With the concept of "Green Intelligent Manufacturing • Responsible Operations • Low-Carbon Circular Economy," we fully integrate circular economy principles into the Group's strategy and operations, committed to building a green ecological closed loop covering the entire battery lifecycle, promoting the transformation from a linear model of "resources-products-waste" to a circular model of "resources-products-renewable resources," maximizing the reduction of environmental impact while creating economic value.

循環經濟管治
Circular Economy Governance

本集團董事會是循環經濟工作的最高監督與決策機構，負責審定循環經濟戰略、目標及重大投資。管理層通過「能碳與環安管理中心」牽頭，協同採購管理中心、科技管理中心及各事業部，形成跨職能的循環經濟執行與協同體系。

The Group's Board of Directors is the highest supervisory and decision-making body for circular economy work, responsible for reviewing circular economy strategies, targets, and major investments. Led by the Energy, Carbon, and EHS Management Center, management collaborates with the Procurement Management Center, Technology Management Center, and various business divisions to form a cross-functional circular economy execution and coordination system.

本集團已建立並持續完善覆蓋循環經濟全流程的制度體系，包括但不限於《包裝材料採購管理制度》《集採原輔材料採購管理辦法》《廢舊設備與廢舊物資處置管理辦法》以及《「無廢集團」建設方案》等。這些制度明確了從原材料綠色採購、生產過程資源節約、廢舊物資回收利用各環節的管理要求與責任分工，確保循環經濟工作有章可循、規範運作。

The Group has established and continuously improved an institutional framework covering the entire circular economy process, including but not limited to the *Packaging Material Procurement Management System*, *Centralized Procurement Management Measures for Raw and Auxiliary Materials*, *Management Measures for Disposal of Waste Equipment and Waste Materials*, and the *Zero-Waste Group Construction Plan*. These systems clarify the management requirements and responsibility division for each link from green procurement of raw materials, resource conservation in production processes, to recycling and utilization of waste materials, ensuring that circular economy work has rules to follow and operates in a standardized manner.

循環經濟策略
Circular Economy Strategy

電池全生命周期管理體系
Battery Full-Lifecycle Management System

本集團的循環經濟戰略緊密圍繞中國「雙碳」目標與「無廢城市」建設要求，以打造「鉛 + 鋰」雙循環生態圈為核心。戰略聚焦三大方向：

The Group's circular economy strategy closely revolves around China's "Dual-Carbon" goals and "Zero-Waste City" construction requirements, centered on building a "Lead&Lithium" dual circular ecosystem. The strategy focuses on three major directions:

源頭生態化 Ecological sourcing

在產品設計端推廣生態設計、模組化設計，減少原材料消耗；在採購端優先選用可再生、可回收的綠色材料。

Promote eco-design and modular design at the product design stage to reduce raw material consumption; and prioritize the use of renewable and recyclable green materials at the procurement stage.

過程資源化 Process resource utilization

在製造與回收環節，通過技術創新實現廢料、廢水、廢熱、廢氣的內部循環與梯級利用，最大限度挖掘「城市礦產」價值。

Through technological innovation in manufacturing and recycling, carry out internal circulation and cascade utilization of waste materials, wastewater, waste heat, and exhaust gases, maximizing the value of "urban mining."

閉環產業化 Closed-Loop Industrialization

構建並完善覆蓋全國的鉛蓄電池「生產 - 銷售 - 回收 - 再生 - 再利用」一體化網絡，對廢舊電池進行分散回收、集中處置與無害化再生利用，確保廢舊電池規範回收、高值化利用。

Build and improve a nationwide integrated network of "production-sales-recycling-regeneration-reuse" for lead batteries, Conducting decentralized collection, centralized disposal, and harmless recycling of used batteries ensure standardized recycling and high-value utilization of waste batteries.

循環經濟風險和機遇管理
Circular Economy Risk and Opportunity Management

我們系統性地識別並管理循環經濟相關的風險與機遇，將其轉化為推動戰略轉型和創造長期價值的驅動力。

The Company systematically identifies and controls risks and opportunities regarding the circular economy, transforming them into drivers for strategic transformation and long-term value.

風險識別 Risk Identification

資源與成本風險 Resource and cost risks

關鍵原材料價格受市場供需、資源分佈及地緣政治等因素影響，波動性較大，可能對原材料供應穩定性及生產成本控制帶來一定壓力。

Prices of key raw materials are highly volatile due to factors such as market supply and demand, resource distribution, and geopolitics, which may exert certain pressure on the stability of raw material supply and the control of production costs.

合規與運營風險 Compliance and operational risks

國內外環保法規持續趨嚴，對廢棄物處理、排放標準及生產者責任延伸提出更高要求。廢舊電池非法回收與處置渠道的存在，可能帶來環境合規風險與品牌聲譽損害。

Domestic and international environmental regulations continue to tighten, imposing higher requirements for waste treatment, emission compliance, and extended producer responsibility. The existing illegal recycling and disposal of waste batteries may bring environmental compliance risks and affect the brand reputation.

技術與市場風險 Technology and Market Risks

循環利用技術路線迭代迅速，若未能及時跟進或突破關鍵技術，可能影響資源回收效率、產品質量穩定性及市場競爭力。此外，下遊客戶對再生材料的性能、質量及認證標準要求不斷提高，市場需求釋放節奏亦存在一定不確定性。

The rapid iteration of recycling technology routes may lead to loss of competitive advantage if key technologies, such as fine sorting of Li-ion batteries and recovery of low-grade resources, are not timely followed up or broken through. There is also uncertainty in the downstream market's acceptance and standard requirements for recycled materials.

機遇識別 Opportunity identification

供應鏈韌性機遇 Supply chain resilience opportunities

通過建立完善的回收體系，可在一定程度上提升對再生資源的利用水平，減少對部分原生資源的依賴，從而增強原材料供應的穩定性，並提升供應鏈韌性。

By establishing a sound recycling system, the utilization of recycled resources can be improved to a certain extent, reducing dependence on some primary resources, thereby enhancing the stability of raw material supply and improving supply chain resilience.

成本與價值創造機遇 Cost and value creation opportunities

通過提升資源循環利用效率，有望優化原材料使用結構，增強成本管控能力。同時，再生材料在部分情境下具有較低的能耗與碳排放特徵，有助於企業更好應對節能降碳及綠色轉型相關要求。

By improving the efficiency of resource recycling, it is expected to optimize the structure of raw material usage and strengthen cost control capabilities. Meanwhile, recycled materials are characterized by lower energy consumption and carbon emissions in some scenarios, helping enterprises better meet requirements related to energy conservation, carbon reduction and green transformation.

政策與市場擴張機遇 Policy and Market Expansion Opportunities

積極響應中國「雙碳」戰略、「以舊換新」及「無廢城市」建設政策，為集團循環經濟業務帶來廣闊市場空間。領先的循環實踐有助於打造綠色品牌形象，滿足客戶日益增長的 ESG 要求，開拓新市場。

Actively responding to China's policies such as the "Dual-Carbon" strategy,"trade-in," and "Zero-Waste City" construction brings vast market space for the Group's circular economy business. Leading circular practices help build a green brand image, meet customers' growing ESG requirements, and explore and develop new markets.

技術創新與標準引領機遇 Technological innovation and standard formulation opportunitiesOpportunities

在循環經濟領域持續開展技術研發與應用探索，有助於企業積累相關技術能力與管理經驗，提升資源利用效率及業務競爭力，並為未來參與行業標準建設創造條件。

Continuous technological R&D as well as application exploration in the field of circular economy help enterprises accumulate relevant technological capabilities and management experience, improve resource utilization efficiency and business competitiveness, and create conditions for their participation in the formulation of industry standards in the future.

風險和機遇管理 Risk and opportunity management

深化技術研發 Deepen Technology R&D

在鉛循環領域持續優化低溫熔煉、富氧側吹等節能技術；在鋰離子電池回收領域攻關高效破碎分選、有價金屬協同提取等核心技術，提升回收率與產品純度，應對技術風險。

Continuously optimize energy conservation technologies such as low-temperature smelting and oxygen-enriched side blowing in the lead cycle; tackle core technologies in the Li-ion battery recycling field such as efficient crushing and sorting, and coordinated extraction of valuable metals, improve recovery rates and product purity, and address technological risks.

推動綠色採購與生態設計 Promotion of green procurement and eco-design

制定並實施綠色採購策略，優先選用可再生、可回收材料及環保包裝。在產品研發階段即考慮易拆解、易回收設計，從源頭減少資源消耗與廢棄物產生。

Formulate and implement green procurement strategies, prioritizing the use of renewable and recyclable materials as well as eco-friendly packaging. The design conducive to disassembly and recycling at the product R&D stage can reduce the resource consumption and waste generation at the source.

參與政策與標準制定 Participate in Policy and Standard Setting

主動參與行業循環經濟相關標準、規範的研討與制定，引導市場健康發展，將合規要求轉化為先發優勢。

Proactively participate in the discussion and formulation of industry circular economy related standards and norms, guide healthy market development, and transform compliance requirements into first-mover advantages.

案例 Case 鉛循環技術升級與區域產業協同實踐 Lead Cycle Technology Upgrade and Regional Industrial Synergy Practice

綠色回收網絡精細化管理與技術迭代：報告期內，集團旗下循環事業部持續優化鉛蓄電池回收網絡運營效率。針對回收過程中產生的廢鉛煙塵、鉛渣、廢酸液等危險廢物，實施了系統性的內部循環利用項目。例如，將濕法淨化工序產生的高氮廢水，採用電化學綠色降解新工藝進行處理，顯著降低了廢水處理壓力及環境風險。此外，積極應用新型除銅劑再生精煉技術及全自動合金真空鑄錠生產線，持續破解再生鉛精煉除銅、砷、錫、銻等技術難題，確保金屬回收品質。

區域產業生態閉環建設：通過建立區域共享的危險廢物利用處置設施，對於環境風險可控、運距合理的所屬企業產生的含鉛廢料及次品電池，統一轉移至區域內的自有再生鉛冶煉設施進行規範化處置與資源化。此種協同模式有效降低了各廠區單獨處置危廢的管理成本與運輸風險，提升了整體資源配置效率，並強化了區域產業鏈的韌性。相關實踐為行業提供了「園區化、集約化」危險廢物管理與循環利用的可行範本。

Green Recycling Network Refined Management and Technology Iteration: During the reporting period, the Group's Recycling Business Division continuously optimized the operational efficiency of the lead-acid battery recycling network. For hazardous wastes generated during the recycling process, such as waste lead fumes, lead slag, and waste acid liquor, systematic internal recycling projects were implemented. For example, a new electrochemical green degradation process was applied to treat high-nitrogen wastewater generated from the wet purification process, significantly reducing wastewater treatment pressure and environmental risks. Additionally, new copper remover regeneration and refining technologies and fully automatic alloy vacuum casting production lines were actively applied, continuously solving technical difficulties in refining recycled lead such as removing copper, arsenic, tin, antimony, etc., ensuring metal recycling quality.

Regional Industrial Ecosystem Closed-Loop Construction: Through the establishment of regional shared hazardous waste utilization and disposal facilities, lead-containing waste and defective batteries generated by subordinate enterprises with controllable environmental risks and reasonable transportation distances are uniformly transferred to self-owned recycled lead smelting facilities within the region for standardized disposal and resource utilization. This collaboration model effectively reduces the management costs and transportation risks of independent hazardous waste disposal at each plant, improves overall resource allocation efficiency, and strengthens the resilience of the regional industrial chain. Relevant practices provide a feasible model for "park-based, intensive" hazardous waste management and recycling for the industry.

案例 Case 跨業務循環協同與資源化技術突破 Cross-Business Circular Synergy and Resource Utilization Technology Breakthroughs

銅、鋁等副產金屬高值化利用：在廢舊電池破碎分選環節，除了回收主金屬外，本集團高度重視銅、鋁等高導電性金屬的資源化。通過改進破碎分選線的磁選、風選及篩分工藝，有效提升了銅箔、鋁殼等物料的分離純度。回收的銅、鋁金屬經檢測合格後，直接作為高品質再生原料出售或回用於集團內部相關製造環節，實現了物料價值的最大化，減少了對原生礦產的需求。

廢水處理污泥資源化處置：集團在多個生產基地推廣將廢水處理產生的含鉛壓濾污泥進行無害化、資源化處置的技術。通過將此類污泥經特定工藝處理後，用作鉛冶煉熔鉛爐的減渣劑，不僅安全地消納了危險廢物，減少了委外處置的環境風險與成本，還替代了部分外購的減渣劑。

High-value Utilization of By-product Metals such as Copper and Aluminum: In the crushing and sorting stage of waste batteries, in addition to recovering main metals, the Group attaches great importance to the resource utilization of highly conductive metals such as copper and aluminum. By improving the magnetic separation, air separation, and screening processes of the crushing and sorting line, the separation purity of materials such as copper foil and aluminum shells has been effectively enhanced. Recovered copper and aluminum, after passing inspection, are directly sold as high-quality recycled raw materials or reused in relevant manufacturing links within the Group, maximizing material value and reducing the demand for primary minerals.

Wastewater Treatment Sludge Resource Utilization: The Group promotes the technology for harmless and resourceful disposal of lead-containing filter press sludge generated from wastewater treatment at multiple production bases. By treating this sludge through specific processes and using it as a slag reducer for lead smelting furnaces, it not only safely consumes hazardous waste, reducing the environmental risks and costs of external disposal, but also replaces part of the externally purchased slag reducer.

循環經濟指標與目標
Circular Economy Metrics and Targets

本集團設定多層次、可量化的目標體系，以驅動循環經濟績效的持續提升，並透明地展示我們的進展與承諾。

The Group sets multi-level, quantifiable target systems to drive continuous improvement in circular economy performance and transparently demonstrate our progress and commitments.

目標類型 Goal Type	指標 Indicators	內容簡要說明 Brief Description of Content	2025 年進展 2025 Progress
資源回收與循環效率 Resource recovery and recycling efficiency	鉛回收率 Lead recovery rate	保持並優化至國際領先水平 Maintain and optimize to internationally leading levels	>99%（集團核心循環經濟產業園） >99%(Group Core Circular Economy Industrial Park)
	鋰離子電池有價金屬（鈷、鎳）綜合回收率 Comprehensive recovery rate of valuable metals (cobalt, nickel) from Li-ion batteries	持續提升，達到行業標杆水平 Continuously improve to industry benchmark levels	鋰回收率≥ 94% Lithium Recovery Rate ≥ 94% 鈷、鎳回收率均≥ 98.5% Cobalt and nickel recovery rates: ≥ 98.5%
	廢塑料回收利用率 Waste Plastic Recycling and Utilization Rate	在符合條件的生產基地全面推廣高比例回收利用 Comprehensively promote high-proportion recycling and utilization in eligible production bases	塑料回收率達 99% Plastic recycling rate reached 99%
	生產廢水循環利用率 Production wastewater recycling rate	在符合條件的生產基地全面推廣高比例循環利用 Comprehensively promote high-proportion recycling in eligible production bases	在部分省份園區已實現近 100% 循環利用 Nearly 100% recycling has been achieved in some provinces' industrial parks
廢棄物減量與強度 Waste Reduction and Intensity	單位產值危險廢物產生量 Hazardous Waste Generation per Unit of Output Value	較基準年（2022 年）顯著下降 Significant decrease compared to base year (2022)	已建立追蹤體系，含鉛廢料、精煉合金渣等指標較 2022-2024 年已實現下降 Tracking system established, indicators such as lead-containing waste and refined alloy slag have decreased compared to 2022-2024
	廢棄物綜合利用率 Comprehensive waste utilization rate	實現持續提升 Continuously improve	集團層面廢棄物綜合利用率達 98% Group-wide comprehensive waste utilization rate reached 98%
戰略與管理 Strategy and Management	「無廢集團」建設 “Zero-Waste Group” Construction	全面建成並高效運行，成為行業示範 Fully established and operating efficiently, serving as an industry demonstration	已發佈《「無廢集團」建設方案》，2025年處於試點建設與體系搭建階段，基本完成管理框架構建。 The *Zero-Waste Group Construction Plan* has been released. In 2025, it was in pilot construction and system building phase, with the management framework largely completed.

推動清潔生產 Promoting Clean Production

本集團將環境安全與合規營運視為企業可持續發展的生命線，致力於構建系統化、全過程的污染防治與生態保護管理體系。集團嚴格遵循《中華人民共和國環境保護法》、《排污許可管理條例》等法律法規，並依據《天能控股集團環安管理體系制度彙編》等內部制度框架，系統性規範廢氣、廢水、固體廢物、噪聲等各類污染物的防治以及危險廢物的管理，通過層級落實與持續改進，切實履行環境責任，推動綠色低碳轉型。

The Group regards environmental safety and compliant operations as the lifeline of its sustainable development, committed to building a systematic, full-process pollution prevention and ecological protection management system. The Group strictly complies with laws and regulations such as the *Environmental Protection Law of the People's Republic of China* and the *Regulations on Administration of Pollutant Discharge Permits*, and follows internal institutional frameworks such as the *Tianneng Holdings Group Compilation of Environment, Health and Safety Management System Regulations* to systematically standardize the prevention and control of various pollutants including exhaust gas, wastewater, solid waste, and noise, as well as the management of hazardous waste. Through tiered implementation and continuous improvement, it earnestly fulfills environmental responsibilities and promotes green and low-carbon transformation.

排放物管理 Emission Management

本集團秉持「減量化、資源化、無害化」的核心原則，將廢棄物管理深度融入綠色循環發展戰略，致力於構建覆蓋全生命週期的「無廢」管理體系，以實現資源價值最大化與環境影響最小化的統一。

The Group adheres to the core principles of "reduction, resource utilization, and harmless treatment," deeply integrating waste management into its green circular development strategy, committed to building a "zero-waste" management system covering the full lifecycle to achieve the unity of maximizing resource value and minimizing environmental impact.

集團嚴格遵守《中華人民共和國環境保護法》、《排污許可管理條例》及電池工業相關污染物排放標準等法規，已通過 ISO 14001 環境管理體系認證。根據《天能控股集團環安管理體系制度彙編》，集團建立了涵蓋廢氣、廢水、固體廢物、噪聲及土壤的系統性污染物管理制度，並建構了由董事會監督、高管層負責、專職環保安防部門執行的三級治理架構，以保障各項管理政策與要求得以有效執行和落地。

The Group strictly complies with laws and regulations such as the *Environmental Protection Law of the People's Republic of China*, the *Regulations on Administration of Pollutant Discharge Permits*, and relevant pollutant emission standards for the battery industry, and has obtained ISO 14001 Environmental Management System certification. According to the *Tianneng Holdings Group Compilation of Environment, Health and Safety Management System Regulations*, the Group has established a systematic pollutant management system covering exhaust gas, wastewater, solid waste, noise, and soil, and has constructed a three-tier governance structure with the supervision of Board of Directors, senior management responsibility, and full-time environmental and safety departments execution, ensuring the effective implementation and execution of various management policies and requirements.

集團的污染物管理政策旨在實現污染物的全生命周期管理與高標準防治，核心是推動「源頭預防、過程監管、末端治理」的閉環管理，並以 [資源化] 為主要推導策略，以最大限度減低各類產品的環境足跡，實現可持續的綠色制造。

The Group's pollutant management policy aims to achieve full lifecycle management and high-standard prevention and control of pollutants. The core is to promote the closed-loop management of "source prevention, process supervision, and end-of-pipe treatment," with [resource utilization] as the main driving strategy, to minimize the environmental footprint of various products and achieve sustainable green manufacturing.

整個營運年度內，所有廢水、廢氣、固體廢物、噪聲和土壤等對集團營運有重大影響的環境介質，其產排及管治均符合甚至超越了適用於集團的法例條例。未發生需對外披露的重大環境違規或處罰事件。此外，部分生產基地如天能馬鞍山更有效採用先進的雨污分離和雨水收集技術循環利用。本年度所有監測方案執行良好，未發現任何監管上的缺陷。

Throughout the operating year, the generation, emission, and management of all environmental media with significant impacts on the Group's operations, including wastewater, exhaust gas, solid waste, noise, and soil, have complied with or even exceeded applicable laws and regulations. No major environmental violations or penalty incidents requiring external disclosure occurred. Additionally, some production bases, such as Tianneng Ma'anshan, effectively adopted advanced rainwater and sewage separation and rainwater collection technologies for recycling. All monitoring plans were well implemented this year, and no regulatory deficiencies were found.

馬鞍山基地雨水利用項目

Ma'anshan Base Rainwater Utilization Project

廢水管理

Wastewater Management

集團已建構了系統性水資源管理架構，配備了水資源統計追蹤，以及區域至專部監管，以下為本年度在廢水管理上的一些主要舉措、亮點和成效。

The Group has constructed a systematic water resource management framework, equipped with water resource statistics tracking, and supervision from regional to specialized levels. The following are some main initiatives, highlights, and achievements in wastewater management for the year.

主要污染物 Main Pollutants

化學需氧量（COD）、氨氮（NH_3-N）、總鉛（Pb）、總磷（TP）、總氮（TN）、懸浮物（SS）等。

Chemical Oxygen Demand (COD), ammonia nitrogen (NH_3-N), total lead (Pb), total phosphorus (TP), total nitrogen (TN), suspended solids (SS), etc.

排放達標情況 Discharge/Disposal Compliance Status

報告期內，集團所有生產基地均依法取得排污許可證，並嚴格按照許可要求設置和管理廢水排放口。根據各子公司提交的 2025 年度排污許可證執行報告，所有廢水排放口的監測數據均顯示，上述主要污染物的實際排放濃度與年度排放總量均遠低於排污許可證規定的限值，實現 100% 穩定達標排放，無超標記錄。

During the reporting period, all production bases of the Group legally obtained pollutant discharge permits and strictly set up and managed wastewater discharge outlets in accordance with permit requirements. According to the 2025 pollutant discharge permit implementation reports submitted by each subsidiary, monitoring data for all wastewater discharge outlets showed that the actual discharge concentrations and total annual emissions of the aforementioned main pollutants were far below the limits specified in the permits, achieving 100% stable compliant discharge with no records of excessive discharge.

集團主要管理方式 Group's Main Management Approach

分質處理與循環回用：嚴格實施「雨污分流、清污分流」。生產廢水經廠區污水處理站處理後，部分（如處理達標的中水）系統化回用於工藝冷卻、電池清洗、車間清潔及環保設施噴淋等環節，最大程度減少新鮮水取用量與外排量。

Segregated Treatment and Recycling: Strictly implemented "rainwater and sewage separation, clean and wastewater separation." After treatment by the plant's wastewater treatment station, part of the production wastewater (e.g., treated standard-compliant reclaimed water) is systematically reused in processes such as process cooling, battery cleaning, workshop cleaning, and spraying for environmental protection facilities, minimizing freshwater intake and external discharge.

全過程監控與合規披露: 對化學需氧量、pH 值、氨氮、總鉛、流量等關鍵指標實施在線自動監測，數據實時上傳至監管平臺。同時，輔以手工月度監測，確保數據準確。所有監測信息均依法公開。

Full-process Monitoring and Compliance Disclosure: Implemented online automatic monitoring for key indicators such as COD, pH value, ammonia nitrogen, total lead, and flow rate, with data uploaded in real-time to the regulatory platform. Simultaneously, supplemented by manual monthly monitoring to ensure data accuracy. All monitoring information is publicly disclosed according to law.

設施保障與風險防控：各基地均配備完善的廢水處理設施（如地埋式生化池、斜板沉澱池等）及專職的污水處理人員。制定並定期演練《突發環境事件應急預案》，以有效應對潛在水污染風險。

Facility Guarantee and Risk Prevention and Control: Each base is equipped with comprehensive wastewater treatment facilities (such as underground biochemical tanks, inclined plate sedimentation tanks, etc.) and full-time wastewater treatment personnel. *Emergency Plans for Environmental Emergencies* are formulated and regularly drilled to effectively respond to potential water pollution risks.

案例 Case

中水回用系統顯著節水降耗

Reclaimed Water Reuse System Significantly Saves Water and Reduces Consumption

天能電池集團（安徽）有限公司通過構建廠區污水站中水回用網絡，將處理達標的廢水循環用於多個生產環節。2025 年，該項目成功減少地下水取水量和廢水外排量約 30.54 萬噸，年節約取水費及減少排污費合計超過人民幣 60 萬元，實現了顯著的環境效益與經濟效益。

Tianneng Battery Group (Anhui) Co., Ltd., by constructing a reclaimed water reuse network at its plant wastewater station, circulates treated standard-compliant wastewater for multiple production processes. In 2025, this project successfully reduced groundwater extraction and wastewater discharge by approximately 305,400 tons, achieving annual savings exceeding RMB 600,000 in water intake costs and reduced sewage discharge fees, realizing significant environmental and economic benefits.

中水回用反滲透設備

Reverse osmosis equipment for reclaimed water reuse

中水、循環水車間回用於生產

Reclaimed water and circulating water workshop for production purposes

廠區內增設回收管網及水泵

Install additional recycling pipe networks and water pumps within the factory area

中水回用管道疏通

Dredge the reclaimed water reuse pipeline

指標 Indicator	單位 Unit	2025
廢水總排放量 Wastewater	噸 Ton	2,929,650.28
化學需氧量（COD） Chemical oxygen demand (COD)	噸 Ton	70.74
氨氮排放量 Ammonia Nitrogen Emissions	噸 Ton	5.17
總磷排放量 Total Phosphorus Emissions	噸 Ton	3.02
總氮排放量 Total Nitrogen Emissions	噸 Ton	14.28
總鉛排放量 Total Lead Emissions	噸 Ton	0.14

廢氣管理
Exhaust Gas Management

主要污染物 Main Pollutants

鉛及其化合物、硫酸霧、顆粒物（PM）、氮氧化物（NOx）、二氧化硫（SO_2）、非甲烷總烴（NMHC）等。

Lead and its compounds, sulfuric acid mist, particulate matter (PM), nitrogen oxides (NOx), sulfur dioxide (SO_2), non-methane total hydrocarbons (NMHC), etc.

排放達標情況 Emission Compliance Status

報告期內，集團所有有組織及無組織廢氣排放口的自行監測及監督性監測數據均未出現超標。各污染物排放濃度均滿足《電池工業污染物排放標準》（GB 30484）及地方更嚴格標準的要求。實際排放總量遠低於排污許可證核定的年度許可排放量，例如，位於安徽省某基地的鉛及其化合物、硫酸霧等特徵污染物實際排放量僅為許可量的30%-60%。

During the reporting period, self-monitoring and supervisory monitoring data for all organized and unorganized exhaust gas discharge outlets showed no exceedances. The emission concentrations of all pollutants met the requirements of the *Emission Standard of Pollutants for Battery Industry* (GB 30484) and stricter local standards. Actual total emissions were far below the annual permitted emissions verified in pollutant discharge permits. For example, at a certain based in Anhui, actual emissions of characteristic pollutants such as lead and its compounds and sulfuric acid mist were only 30%-60% of the permitted amounts.

集團主要管理方式 Group's Main Management Approach

分類收集，高效治理：針對不同廢氣特性，採用專用工藝：含鉛廢氣採用「高效濾筒除塵 + 旋風除塵」組合工藝；酸霧廢氣採用鹼液噴淋中和淨化塔；有機廢氣配置相應吸附或焚燒裝置；鍋爐廢氣採用低氮燃燒技術。治理設施運行正常，去除效率保持高位。

Classified Collection, Efficient Treatment: Specific processes are adopted for different exhaust gas characteristics: lead-containing exhaust gas uses a combined process of "high-efficiency cartridge dust removal+cyclone dust removal"; acid mist exhaust gas uses alkali spray neutralization purification towers; organic exhaust gas is equipped with corresponding adsorption or incineration devices; boiler exhaust gas uses low-nitrogen combustion technology. Treatment facilities operate normally, maintaining high removal efficiency.

嚴格監測與臺賬管理：嚴格執行自行監測方案，對涉鉛廢氣每月監測，涉酸廢氣每季度監測，無組織廢氣每半年監測，並建立完整的監測臺賬。部分重點排放口安裝在線監測設施。

Strict Monitoring and Ledger Management: Strictly implement self-monitoring plans, with monthly monitoring for lead-related exhaust gas, quarterly monitoring for acid-related exhaust gas, semi-annual monitoring for unorganized exhaust gas, and complete monitoring ledgers established. Online monitoring facilities are installed at some key discharge outlets.

源頭與過程管控：對生產車間實施微負壓管理，防止無組織逸散；對報停的生產線及治理設施及時辦理環保手續，確保管理閉環。

Source and Process Control: micro-negative pressure management is implemented in production workshops to prevent unorganized fugitive emissions; environmental protection procedures are timely handled for suspended production lines and treatment facilities, ensuring management closure.

案例 Case 煙氣硫素利用系統實現硫元素閉環
Flue Gas Sulfur Utilization System Achieves Closed-Loop Sulfur Cycle

本集團在含鉛廢物資源化利用過程中，持續完善煙氣治理與綜合利用措施，對生產過程中含硫煙氣進行回收處理，並製成可循環利用的工業產品，用於相關生產環節及其他工業場景。通過推進污染治理與資源化利用協同，本集團進一步提升了資源利用效率，並減少了相關污染物排放。

During the resource utilization of lead-containing waste, the Group has continuously improved flue gas treatment and comprehensive utilization measures. It recycles and treats sulfur-containing flue gas generated in the production process and processes it into recyclable industrial products for use in relevant production links and other industrial scenarios. By promoting the coordination of pollution control and resource utilization, the Group has further improved resource utilization efficiency and reduced the discharge of relevant pollutants.

指標 Indicator	單位 Unit	2025
廢氣總排放量 Total Air Pollutant Emissions	立方米 m^3	400,363,549,496.00
氮氧化物排放量 Nitrogen Oxides Emissions	噸 Ton	59.24
硫氧化物排放量 Sulfur Oxides Emissions	噸 Ton	23.08
非甲烷總烴排放量 Non-Methane Total Hydrocarbons Emissions	噸 Ton	13.96
懸浮粒子與顆粒物（PM）排放量 Particulate Matter (PM) Emissions	噸 Ton	49.49
鉛及其化合物 Lead and its compounds	千克 Kg	2,374.21

廢棄物管理
Waste Management

本集團將廢棄物視為「放錯位置的資源」，核心策略是實現資源化利用，並遵循「分類收集、安全貯存、合規處置」原則。

The Group regards waste as "resources placed in the wrong location," with the core strategy being resource utilization, following the principles of "classified collection, safe storage, and compliant disposal."

有害廢棄物 Hazardous Waste

報告期內，集團所有有組織及無組織廢氣排放口的自行監測及監督性監測數據均未出現超標。各污染物排放濃度均滿足《電池工業污染物排放標準》（GB 30484）及地方更嚴格標準的要求。實際排放總量遠低於排污許可證核定的年度許可排放量，例如，位於安徽省某基地的鉛及其化合物、硫酸霧等特徵污染物實際排放量僅為許可量的30%-60%。

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主要種類 Main Types

含鉛廢物（鉛渣、鉛塵、廢鉛膏等）、廢酸、廢礦物油、廢有機溶劑（如廢電解液）、沾染危化品的廢包裝物等。

Lead-containing waste (lead slag, lead dust, waste lead paste, etc.), waste acid, waste mineral oil, waste organic solvents (e.g., waste electrolyte), waste packaging materials contaminated with hazardous chemicals, etc.

排放 / 處置達標情況 Discharge/Disposal Compliance Status

報告期內，所有有害廢棄物均得到 100% 安全合規處置或資源化利用，各子公司危廢貯存設施未出現超期、超量儲存等不合規情況。委外處置均轉移給具備專業資質的單位，並執行電子轉移聯單制度，全程可追溯。

During the reporting period, 100% of all hazardous waste was safely and compliantly disposed of or resource-utilized. No non-compliant situations such as overdue or excessive storage occurred in any subsidiary's hazardous waste storage facilities. External disposal was transferred to units with specialized qualifications, implementing an electronic transfer manifest system for full traceability.

集團主要管理方式 Group's Main Management Approach

閉環資源化優先：依託集團內循環事業部技術，優先實現內部高值化利用。例如，含鉛污泥經技術處理後用作熔鉛爐減渣劑；廢鉛膏、板柵通過自動化分選及「富氧側吹」等先進工藝，回收為精鉛等原料。

Prioritize Closed-Loop Resource Utilization: Relying on the technology within the Group's Recycling Division, internal high-value utilization is prioritized. For example, lead-containing sludge is treated and used as a slag reducer for lead melting furnaces; waste lead paste and grids are recovered into raw materials such as refined lead through automated sorting and advanced processes like "oxygen-enriched side blowing."

全流程精細化管控：從源頭按規範分類、貼標，存入專用防滲危廢庫房。建立完善的危廢管理臺賬，利用信息化系統（如固體廢物綜合管理系統）實現從產生、貯存、轉移到處置的全生命周期電子跟蹤與預警。

Full-process Refined Control: From the source, materials are classified and labeled according to specifications and stored in dedicated hazardous waste warehouses with anti-seepage measures. Complete hazardous waste management ledgers are established, and information systems (such as the solid waste comprehensive management system) are used to achieve full lifecycle electronic tracking and warning from generation, storage, transfer to disposal.

資質審核與應急演練：對委外處置合作方進行嚴格的資質審查及現場審計。定期開展危險廢物泄漏等突發環境事件應急演練，提升風險應對能力。

Qualification Review and Emergency Drills: Conduct strict qualification review and on-site audits for external disposal partners. Regularly conduct emergency drills for environmental emergencies such as hazardous waste leaks to enhance risk response capabilities.

案例 Case

污水站污泥回用做減渣劑實現降本增效
Sludge Reuse as Slag-Reducing Agent for Lower Cost and Higher Efficiency

本集團旗下生產基地將廢水處理產生的綜合污泥進行資源化利用，探索將其用作鉛冶煉熔鉛爐的減渣劑。通過該技術，不僅減少了污泥作為危險廢物的委外處理量，還替代了部分外購減渣劑。根據測算，此項措施每年可處理污泥約 2,800 噸，通過節省減渣劑採購成本及減少污泥處理成本，實現年降本約人民幣 700 萬元。

The Group utilizes the comprehensive sludge generated from wastewater treatment as resources and explores its use as a slag reducer in lead smelting furnaces. Through this technology, not only is the volume of sludge requiring outsourced disposal as hazardous waste reduced, but it also replaces part of the externally purchased slag reducer. According to estimates, this measure can treat approximately 2,800 tons of sludge annually, achieving an annual cost reduction of about RMB 7 million through savings on slag reducer procurement costs and sludge disposal costs.

污水處理污泥產生設施斜板沉澱
Inclined plate sedimentation of sewage treatment sludge generation facilities

氣動隔膜泵
Pneumatic diaphragm pump

污泥壓濾裝置
Sludge filter press

無害廢棄物（一般工業固體廢物）Harmless Waste (General Industrial Solid Waste)

主要種類 Main Types

不含重金屬的廢邊角料、廢包裝材料（紙箱、打包帶）等。

waste scraps free of heavy metals, waste packaging materials (cardboard boxes, strapping bands), etc.

排放 / 處置達標情況 Discharge/Disposal Compliance Status

報告期內，所有無害廢棄物均得到合理分類與處置，未發生非法傾倒或處置不當引起的環境事件。資源化利用率處於行業領先水平。

During the reporting period, all harmless waste was properly classified and disposed of, with no environmental incidents caused by illegal dumping or improper disposal. The resource utilization rate remains at an industry-leading level.

集團主要管理方式 Group's Main Management Approach

深度融入循環產業鏈：將無害廢棄物管理深度融入「回收 - 冶煉 - 再生產」體系。例如，廢舊電池塑料經自動分選、造粒後，直接用作新電池外殼原料；含鉛廢鐵渣經深度脫鉛後外售作為煉鋼原料。

Deep Integration into the Circular Industrial Chain: harmless waste management is deeply integrated into the "recycling-smelting-reproduction" system. For example, waste battery plastics, after automatic sorting and granulation, are directly used as raw materials for new battery casings; lead-containing iron waste residue, after deep lead removal, is sold as raw material for steelmaking.

源頭減量與工藝優化：通過推行「綠色生態設計」和「清潔生產技術」，從產品設計階段減少廢物產生。採用「連鑄連軋」等新工藝替代傳統重力澆鑄，從源頭減少無害廢料的產生量。

Source Reduction and Process Optimization: By promoting "green ecological design" and "cleaner production technologies," waste generation is reduced from the product design stage. New processes such as "continuous casting and rolling" replace traditional gravity casting, reducing the generation of harmless waste at the source.

規範貯存與定向利用：設置一般固廢貯存庫，規範分類存放。與下遊資源化利用企業建立穩定合作關係，確保廢物定向轉化為可用資源。

Standardized Storage and Targeted Utilization: General solid waste storage warehouses are established, with standardized classified storage. Stable cooperative relationships are established with downstream resource utilization enterprises to ensure the targeted conversion of waste into usable resources.

案例 Case　廢塑料閉環再生塑造綠色包裝
Closed-Loop Regeneration of Waste Plastic for Green Packaging

集團將電池回收拆解產生的廢塑料（聚丙烯），通過自動化分選、清洗、破碎、改性造粒等一系列工序，生產出高品質的再生塑料顆粒。這些再生顆粒直接用於製造新鉛蓄電池的外殼，形成了「廢舊外殼→再生顆粒→新外殼」的閉合循環，不僅減少了對原生塑料的依賴和廢棄物總量，更大幅降低了產品碳足跡。

The Group takes waste plastic (polypropylene) generated from battery recycling and dismantling, and through a series of processes including automated sorting, cleaning, crushing, modification, and granulation, produces high-quality recycled plastic pellets. These recycled pellets are directly used to manufacture new lead-acid battery casings, forming a closed loop of "waste casings → recycled pellets → new casings." This not only reduces dependence on virgin plastics and the total amount of waste, but also significantly lowers the product carbon footprint.

廢棄物減量目標與進展 Waste Reduction Targets and Progress

本集團致力於建設「無廢集團」，並設定了具體的減量目標。在鉛蓄電池製造板塊，通過工藝優化，含鉛廢料單位產值產生量持續下降。在廢鉛蓄電池回收板塊，針對精煉合金渣的減量成效顯著，其單位產值產生量較基準年大幅下降約 70%，提前超額完成階段性減量目標。未來，集團將繼續強化制度執行與技術創新，進一步鞏固廢棄物資源化與無害化管理成效。

The Group is committed to building a "Zero-Waste Group" and has set specific reduction targets. In the lead-acid battery manufacturing sector, through process optimization, the generation of lead-containing waste per unit of output value continues to decline. In the waste lead-acid battery recycling sector, significant results have been achieved in reducing refined alloy slag, with its generation per unit of output value decreasing by approximately 70% compared to the base year, exceeding the phased reduction target ahead of schedule. In the future, the Group will continue to strengthen system implementation and technological innovation, further consolidating the effectiveness of waste resource utilization and harmless management.

指標 Indicator	單位 Unit	2025
有害廢棄物總量 Total Hazardous Waste	噸 Ton	190,379.46
有害廢棄物密度 Hazardous waste density	千克 / 人民幣萬元 kg/RMB 10,000	35.39
無害廢棄物總量 Total Non-Hazardous Waste	噸 Ton	69,693.19
無害廢棄物密度 Harmless waste density	千克 / 人民幣萬元 kg/RMB 10,000	12.95
一般固體廢棄物總量 Total general solid waste	噸 Ton	69,693.19
一般固廢合規處置率 Compliant disposal rate of general solid waste	%	100
一般固廢合規處置量 General compliance disposal volume of solid waste	噸 Ton	69,693.19
危廢合規處置率 Compliant disposal rate of hazardous waste	%	100
危廢合規處置量 Hazardous Waste Compliant Disposal Volume	噸 Ton	190,379.46

清潔技術機遇 Clean Technology Opportunities

本集團深刻認識到，清潔技術的研發與應用是應對氣候變化、推動產業綠色轉型的核心驅動力，亦是構築長期競爭優勢的關鍵。2025 年，集團持續將清潔技術創新置於戰略核心，圍繞「綠色設計 - 智能製造 - 循環再生」的技術鏈條，在零碳能源、綠色製造、資源循環及數字化管理等多個關鍵領域取得實質進展，致力於將驗證成熟的綠色技術與解決方案向行業輸出，成為推動新能源產業乃至傳統製造業綠色轉型的可複製樣板與技術引領者。

The Group deeply recognizes that the research, development, and application of clean technologies are the core drivers for coping with climate change and promoting industrial green transformation, as well as the key to building long-term competitive advantages. In 2025, the Group continued to place clean technology innovation at the core of its strategy, focusing on the technology chain of "green design-intelligent manufacturing-circular regeneration," achieving substantial progress in multiple key areas such as zero-carbon energy, green manufacturing, resource recycling, and digital management. It is committed to exporting proven mature green technologies and solutions to the industry, becoming a replicable model and technology leader driving the green transformation of the new energy industry and even traditional manufacturing.

佈局前沿零碳能源，發展氫能與新一代電池技術

Pioneering Frontier Zero-Carbon Energy by Developing Hydrogen Energy and Next-Generation Battery Technologies

為引領未來零碳交通與儲能市場，集團積極佈局固態電池及下一代電池技術的研發與產業化。

To lead future zero-carbon transportation and energy storage markets, the Group is actively laying out the R&D and industrialization of solid-state batteries and next-generation battery technologies.

固態電池 Solid-State Batteries

在固態電池領域，產品已通過嚴苛的針刺測試，並應用於電動摩託車、無人機等場景，佈局多元化零碳技術路線。

Solid-State Batteries: In the field of solid-state batteries, products have passed stringent nail penetration tests and been applied to scenarios such as electric motorcycles and drones, laying out a diversified zero-carbon technology roadmap.

鈉離子電池 Sodium-Ion Batteries

在鈉離子電池領域，集團研發的產品在 -40°C極端低溫環境下容量保持率超 80%，並已發佈汽車起動啓停系統、動力及儲能等應用場景專用產品。

In the field of sodium-ion batteries, products developed by the Group maintain a capacity retention rate of over 80% at an extremely low temperature of -40 ℃ . Dedicated products for application scenarios such as automotive start-stop systems, power and energy storage have also been launched.

氫燃料電池 Hydrogen Fuel Cells

已完成氫燃料電池產品的開發並實現商業化應用，產品已應用於城市公交、裝載機等場景，為零碳重型交通提供解決方案。集團自製核心零部件膜電極已完成批量出貨。

The development of hydrogen fuel cell products has been completed and commercial application achieved. The products have been applied in scenarios such as urban public transport and loaders, providing solutions for zero-carbon heavy-duty transportation. The Group’s self-developed core component, the membrane electrode assembly (MEA), has been delivered in batches.

生產環節深度節能，應用綠色工藝與餘熱回收技術

Deepening Energy Conservation in Production by Applying Green Processes and Waste Heat Recovery Technologies

集團將綠色技術深度融入製造環節，通過工藝革新與能源梯級利用，實現生產過程的深度減排。

The Group deeply integrates green technologies into manufacturing processes, achieving deep emission reductions in production through process innovation and energy cascade utilization.

綠色製造工藝 Green manufacturing processes

全面推廣「四連工藝」（連鑄連軋、連衝連塗、連續擴網等）、能量回饋式充電等行業先進技術。其中，充電環節放電電能回收率突破 80%，從源頭削減了能耗與酸霧產生。

The Company comprehensively promotes advanced technologies such as "Four Continuous Processes"(continuous casting and rolling, continuous punching and coating, continuous mesh expansion, etc.), and energy feedback charging. Among them, the recovery rate of discharged energy in the charging stage exceeds 80%, reducing energy consumption and acid mist generation at the source.

煙氣餘熱與蒸汽回收 Flue Gas Waste Heat and Steam Recovery

部分生產基地實施餘熱鍋爐蒸汽回收項目，將熔煉過程產生的高溫煙氣餘熱轉化為蒸汽，部分外售予園區內企業，部分回用於自身生產，實現能源協同增效。

Some production bases have implemented waste heat boiler steam recovery projects, which convert waste heat from high-temperature flue gas generated during smelting into steam. Part of the steam is sold to enterprises in the park, and part is reused in their own production, achieving synergistic energy efficiency improvement.

識別有毒有害物質，實現減量化和資源化

Identifying Toxic and Hazardous Substances for Reduction and Recycling

集團已明確識別其主要生產環節涉及的有毒有害物質（核心為鉛、硫酸及其衍生物），並系統性地通過工藝革新、設備升級與循環再生等措施減少其使用和排放。

The Group has clearly identified the toxic and hazardous substances involved in its main production processes (core substances being lead, sulfuric acid, and their derivatives), and systematically reduces their use and emissions through process innovation, equipment upgrades, and recycling measures.

已識別的有毒有害物質 Identified Toxic and Hazardous Substances

集團在清潔生產公示中，詳細披露了使用的有毒有害原輔料及產生的危險廢物，這本身即是系統識別的結果。

In its cleaner production disclosures, the Group details the toxic and hazardous raw and auxiliary materials used and the hazardous waste generated, which itself is the result of systematic identification.

物質類型 Substance Type	具體物質 / 形態 Specific Substance/Form	主要來源 / 環節 Main Source/Process	潛在風險 / 影響 Potential Risk/Impact
有毒有害原輔材料 Toxic and hazardous raw and auxiliary materials	電解鉛、合金鉛、紅丹（Pb_3O_4） Electrolytic lead, alloy lead, red lead (Pb_3O_4)	極板製造 Grid manufacturing	鉛及化合物可造成環境和人體健康危害。 Lead and its compounds may cause environmental and human health hazards.
	濃硫酸（98%） Concentrated sulfuric acid (98%)	電池化成、配酸 Battery formation and acid preparation	硫酸霧具有腐蝕性。 Sulfuric acid mist is corrosive.
生產過程排放物 Production process emissions	鉛煙、鉛塵、硫酸霧 Lead fume, lead dust, and sulfuric acid mist	熔鉛、鑄板、電池化成 Lead melting, grid casting, and battery formation	大氣污染物，也是主要的職業健康危害因素。 Air pollutants, also major occupational health hazards.
危險廢物 Hazardous waste	鉛渣、鉛粉、鉛泥、含鉛沾染物等 Lead slag, lead powder, lead sludge, lead-contaminated items, etc.	生產、治污、維護過程 Production, pollution control, and maintenance processes	若處置不當，會造成土壤和水體污染。 Improper disposal will result in soil and water pollution.

為減少使用和排放所採取的措施 Measures Taken to Reduce Use and Emissions

集團從「源頭 - 過程 - 末端」全過程出發，採取了綜合性措施，旨在實現減量化和資源化。

The Group adopts comprehensive measures from the "source-process-end" whole process, aiming to achieve reduction and resource utilization.

措施方向 Orientation	具體措施 / 案例 Measure/Case	關鍵成效與量化結果 Key Effectiveness and Quantitative Outcome
工藝與設備升級（源頭與過程減量）Process and Equipment Upgrades (source and process reduction)	推廣連鑄連軋工藝替代傳統重力澆鑄。 Promote continuous casting and rolling process to replace traditional gravity casting.	減少鉛煙、鉛塵排放。 Reduce lead fume and lead dust emissions.
	應用「冷切」等智能產線，採用機械手組裝及直接冷切方式替代鉛融化工藝。 Apply "cold cutting" and other intelligent production lines, using robotic assembly and direct cold cutting methods to replace lead melting processes.	消除鉛煙產生，能耗降低約 30%，污染物排放減少約 50%。 Eliminates lead fume generation, reduces energy consumption by about 30%, reduces pollutant emissions by about 50%.
	打造智能工廠，通過全產業智能工廠減少人為接觸。 Building smart factories: Reduce human exposure by building smart factories.	單位產品污染物排放量削減近 60%。 Reduce the pollutant emissions per unit of product by nearly 60%.
廢物資源化循環（末端循環）Waste Resource Recycling (End-of-Pipe Recycling)	含鉛污泥內部回用：將廢水處理產生的含鉛壓濾污泥，製成熔鉛減渣劑自用。 Internal reuse of lead-containing sludge: Transform lead-containing filter press sludge from wastewater treatment into slag reducer for lead melting.	減少危廢（污泥）處理量，實現無害化與資源化。 Reduce hazardous waste (sludge) disposal volume, achieve harmless treatment and resource utilization.
	構建鉛閉環回收系統：透過旗下鉛蓄電池循環業務，將生產環節產生的鉛渣、鉛泥等危險廢物進行回收再生利用。 Construct a closed-loop lead recycling system: Through the Group's lead-acid battery recycling business, hazardous wastes such as lead slag and lead mud generated in the production process are recycled and reused.	鉛回收率超過 99%，大幅減少對原生鉛礦的依賴和對環境的排放。 Lead recovery rate exceeds 99%, significantly reducing dependence on primary lead ore and emissions to the environment.
系統化環境管理 Systematic Environmental Management	健全制度與培訓：內部制定《清潔生產管理制度》等，並開展專項培訓。 Improvement of systems and training: Internally formulate systems such as the *Clean Production Management System* and conduct specialized training.	確保管理體系有效運行，提升員工環境管理意識。 Ensure effective operation of the management system, and enhances employee management awareness.

深化循環技術創新，提升資源回收效率

Deepening Circular Technology Innovation, Improving Resource Recovery Efficiency

集團將循環技術作為清潔技術的核心組成部分，持續投入研發，以提升資源回收效率並降低二次污染。

The Group regards circular technology as a core component of clean technology, continuously investing in R&D to improve resource recovery efficiency and reduce secondary pollution.

鉛蓄電池循環領域 Lead-acid Battery Recycling Sector

本集團持續圍繞鉛循環利用過程中的資源回收與污染防治開展技術優化，通過完善含鉛物料回用機制、優化環保處理措施及提升綜合利用水平，進一步提高有價資源回收效率，降低危險廢物處置壓力及相關環境風險。

The Group has continuously optimized technologies for resource recovery and pollution prevention in the process of lead recycling. By improving the recycling mechanism of lead-containing materials, optimizing environmental protection treatment measures and enhancing the level of comprehensive utilization, the Group has further increased the recovery efficiency of valuable resources, reduced the pressure of hazardous waste disposal and relevant environmental risks.

鋰離子電池領域 Li-ion Battery Recycling Sector

本集團圍繞鋰循環利用過程中的提取、分離、雜質控制及資源回收等方面持續推進技術優化，並同步加強污染治理設施運行管理與在線監測，減少跑冒滴漏等情況發生，降低二次污染風險。

The Group has continuously advanced technological optimization in the extraction, separation, impurity control and resource recovery throughout the lithium recycling process. Meanwhile, it has strengthened the operation management and online monitoring of pollution control facilities to reduce run, emission, drip and leakage, thereby lowering the risk of secondary pollution.

以「綠色工廠」為樣板，集成推廣綠電與碳匯組合技術

Using "Green Factories" as Models, for Integration and Promotion of Green Power and Carbon Sink Technologies

集團下屬子公司共計 11 家已通過中國國家級綠色工廠認證

The Group and its subsidiaries have a total of 11 entities certified as national-level green factories in China.

浙江天能動力能源有限公司「綠色工廠」
"Green Factory" of Zhejiang Tianneng Power Energy Co., Ltd.

天能馬鞍山國家級「5G 工廠」
Tianneng Ma'anshan National Level "5G Factory"

綠色設計與產品認證
Green Design and Product Certification

本集團將綠色設計理念深度融入產品研發的初始階段，致力於從源頭減少資源消耗和環境影響，並積極推動產品獲得綠色認證，以提升市場競爭力並響應綠色供應鏈要求。

The Group deeply integrates green design concepts into the initial stage of product R&D. It is committed to reducing resource consumption and environmental impact at the source. It also actively strives for green certifications of its products, in order to enhance its market competitiveness and respond to green supply chain requirements.

綠色設計實踐 Green Design Practices

集團積極採用生態設計、模組化設計及電腦模擬仿真等技術，從產品設計源頭貫徹綠色理念。例如，通過優化電池結構設計、減少有害物質使用、提升能量密度和循環壽命，旨在降低產品全生命週期的資源與環境負荷。集團旗下已有 5 家子公司被工業和信息化部評為「國家工業產品綠色設計示範企業」，體現了行業領先的綠色設計能力。

The Group actively adopts technologies such as ecological design, modular design, and computer simulation, implementing green concepts from the product design source. For example, by optimizing battery structure design, reducing the use of hazardous substances, and improving energy density and cycle life, it aims to reduce the resource and environmental load throughout the product lifecycle. Five of the Group's subsidiaries have been rated as "National Industrial Product Green Design Demonstration Enterprises" by the Ministry of Industry and Information Technology, demonstrating industry-leading green design capabilities.

綠色產品認證 Green Product Certification

集團積極推動產品獲得權威綠色認證，以彰顯其環保屬性。報告期內，集團及下屬子公司累計獲得 22 項國家級綠色產品相關榮譽及認證。旗下多系列動力電池、儲能電池產品已通過中國或行業認可的綠色產品認證，例如符合《綠色產品評價電池》等相關標準。這些認證不僅驗證了產品在能效、環保、可再生材料使用等方面的優異表現，也成為集團產品進入對環保有嚴格要求的高端市場及滿足大型客戶 ESG 採購標準的重要通行證。

The Group actively promotes products to obtain authoritative green certifications, highlighting their environmental attributes. During the reporting period, the Group and its subsidiaries have accumulatively received 22 national-level honors and certifications related to green design products. Multiple series of power battery and energy storage battery products have passed national or industry-recognized green product certifications, such as conforming to relevant standards like *Green Product Assessment-Batteries*. These certifications not only verify the products' excellent performance in energy efficiency, environmental protection, and use of renewable materials but also serve as important passes for the Group's products to enter high-end markets with strict environmental requirements and meet the ESG procurement standards of large customers.

數字化賦能清潔生產，打造智慧能碳管理體系
Digitalization Empowering Clean Production Cleaner Production by Building Smart Energy and Carbon Management System

集團深化「AI+ 生態」戰略，利用數字化技術提升清潔生產的精細化管理水平。通過部署新一代能源管理系統（EMS），融合 AI 與數字孿生技術，實現能源消耗的毫秒級響應與智能調度。同時，正在構建面向碳中和的專屬能碳智慧管理平臺，旨在通過大數據分析碳排放規律，優化能源配置，實現碳數據的實時監測與降碳方案的智能匹配，以技術賦能管理效率提升。

The Group deepens its "AI+Ecology" strategy, utilizing digital technologies to enhance the refined management of clean production. By deploying a new generation of energy management system (EMS), and integrating AI and digital twin technologies, it achieves millisecond-level response and intelligent scheduling of energy consumption. Simultaneously, it is building an exclusive smart energy and carbon management platform for carbon neutrality, which is designed to analyze carbon emission patterns through big data, optimize energy allocation, monitor carbon data in real time, and intelligently match carbon reduction solutions, thereby empowering management efficiency improvement through technology.

集團能碳管理系統
Group Energy and Carbon Management System

案例 Case

集團聚焦內部環安審核
Group Focuses on Internal Environmental Audits

基於《環安管理體系制度彙編》及《環安責任追究管理制度》，本集團建立了覆蓋集團、事業部、子公司三級的常態化內部環安審核機制。2025 年，集團環保安防管理中心通過專項督查與精準幫扶，對管理相對滯後的單位出具環安督辦單 48 份，並組建「一企一策」幫扶專班，推動其系統性整改與提升，確保了內部審核發現的問題 100% 閉環管理，並將審核結果直接與各單位的月度及年度經營績效考核掛鉤，實現了環境、安全、職業衛生管理從被動合規到主動治理的價值轉化。

Based on the Compilation of *Environment, Health and Safety Management System Regulations* and *Environment, Health and Safety Accountability Management System*, the Group has established a normalized internal environmental audit mechanism covering three levels: the Group, business divisions, and subsidiaries. In 2025, through special supervision and precise assistance, the Group's Environmental Protection and Safety Management Center issued 48 environment, health and safety supervision notices to units with relatively lagging management, and formed "one-policy-for-one-enterprise" assistance teams to promote systematic rectification and improvement. This ensured 100% closed-loop management of issues identified in internal audits, and directly linked the audit results to the monthly and annual operating performance assessments of each unit, achieving the value transformation of environmental, safety, and occupational health management from passive compliance to active governance.




內部環保審核現場
Internal Environmental Audit Site

清潔技術戰略與管理
Clean Technology Strategy and Management

本集團將清潔技術創新列為關鍵戰略目標之一，並建立相應的管理架構與投入機制以把握相關機遇。

The Group lists clean technology innovation as one of its key strategic objectives and has established corresponding management structures and investment mechanisms to seize related opportunities.

戰略聚焦 Strategic Focus

本集團持續將清潔技術創新作為推動綠色低碳發展的重要支撐，並逐步融入產品研發、生產製造、能源管理及資源循環利用等關鍵環節。通過持續推進相關技術的研發、應用與優化，本集團致力於提升資源利用效率、降低能源資源消耗及污染排放，並不斷完善清潔生產與循環利用能力。與此同時，本集團亦關注將技術進步與業務發展、運營提效及環境管理相結合，推動形成兼顧經濟效益、環境效益與長期可持續發展的業務基礎。

The Group continues to take clean technology innovation as an important support for promoting green and low-carbon development, and gradually integrates it into key links such as product R&D, manufacturing, energy management and resource recycling. Through the continuous R&D, application and optimization of relevant technologies, the Group is committed to improving resource utilization efficiency, reducing energy and resource consumption as well as pollutant emissions, and steadily enhancing its capacity for cleaner production and recycling. Meanwhile, the Group also focuses on integrating technological progress with business development, operational efficiency improvement and environmental management, so as to foster a business foundation that balances economic benefits, environmental benefits and long-term sustainable development.

研發投入與知識產權 R&D Investment and Intellectual Property

集團持續進行相應研發投入，依託國家級技術中心等平臺，支持對固態電池、氫燃料電池等前沿清潔技術的探索。截至報告期末，集團擁有大量專利家族，為清潔技術創新提供堅實的知識產權基礎。

The Group continues to invest in R&D. Relying on platforms such as the national-level technology center, it supports the exploration of cutting-edge clean technologies including solid-state batteries and hydrogen fuel cells. By the end of the reporting period, the Group owned a large number of patent families, providing a solid intellectual property foundation for clean technology innovation.

目標與路徑 Targets and Pathways

集團已制定明確的氣候行動與技術減排目標。例如，規劃於 2026 年投入技術工藝升級總資金，預期實現可觀的降碳量；並規劃於 2027-2030 年通過持續技術升級，實現遠期降碳目標。具體路徑包括推進工業餘熱回收、高效節能設備替換、生產工藝低碳優化等重點項目。

The Group has formulated clear climate action and technology emission reduction targets. For example, it plans to invest a total fund in technological process upgrades in 2026, expecting to achieve considerable carbon reduction; and plans to achieve long-term carbon reduction goals through continuous technological upgrades in 2027-2030. Specific pathways include promoting key projects such as industrial waste heat recovery, replacement with high-efficiency energy conservation equipment, and low-carbon optimization of production processes.

本集團將清潔技術機遇內化為企業發展的核心戰略，通過貫通「綠色設計 - 智能製造 - 循環再生」的技術鏈條，不僅顯著降低了自身運營的環境影響，更將已驗證的綠色技術、循環模式與零碳解決方案向行業輸出，致力於成為推動新能源產業乃至傳統製造業綠色轉型的可複製樣板和技術引領者。

The Group takes clean technology opportunities as its core corporate development strategy. By integrating the technology chain of "green design-intelligent manufacturing-circular regeneration," it not only significantly reduces the environmental impact of its own operation, but also exports proven green technologies, circular models, and zero-carbon solution, striving to become a replicable model and technological leader driving the green transformation of the new energy sector and even traditional manufacturing.

守護綠水青山 Protecting Lucid Waters and Lush Mountains

本集團構建了職責明晰、流程閉合、覆蓋產業全鏈條的環境合規管理體系，嚴格恪守中國生態環境保護相關法規標準。2025 年，本集團從完善組織架構、健全制度流程、深化國際體系認證、強化風險應急能力四大維度協同發力，持續提升企業環境管理的專業化、精細化與智能化水平。目前已建立覆蓋項目規劃、建設、運營、終結全生命週期的系統化環境管理制度體系，並通過開展全員環保培訓、搭建智能監測體系、組織常態化應急預案演練等多項舉措，實現各類環境風險的全流程、科學化防控。截至 2025 年末，本集團及旗下所有製造業子公司均順利通過 ISO 14001 環境管理體系認證，全年未發生任何重大環境事件，實現環境合規與生產經營的高質量穩健協同發展。

The Group has constructed an environment compliance management system with clear responsibilities, closed processes, and full industrial chain coverage, strictly abiding by Chinese ecological and environmental protection laws, regulations and standards. In 2025, the Group advanced in four dimensions: improving organizational structure, optimizing institutional processes, deepening international system certification, and strengthening risk emergency response capabilities, continuously enhancing the professionalism, refinement and intelligence of corporate environmental management. A systematic environmental management system covering the entire project lifecycle from planning, construction, operation to decommissioning has been established. Through a series of initiatives including company-wide environmental training, intelligent monitoring system development, and regular emergency plan drills, full-process and scientific prevention and control of various environmental risks have been realized. As of the end of 2025, the Group and all its manufacturing subsidiaries had successfully obtained ISO 14001 Environmental Management System certification, with no major environmental incidents occurring throughout the year, achieving high-quality, stable and coordinated development of environmental compliance and production operations.

環境合規管理 Environmental Compliance Management

本集團將環境保護視為企業永續經營的基石，嚴格遵循營運所在地之環境法律法規，並透過系統化之管理架構與持續改善機制，確保各項營運活動符合甚至超越法定標準。2025 年度，本集團持續強化環境治理，未發生重大環境污染事故、重大安全事件或因環境違規所導致之重大行政處分，整體環境管理績效維持穩健。

The Group regards environmental protection as the cornerstone of sustainable business operations, strictly follows the environmental laws and regulations of its operating locations, and ensures that all operational activities meet or exceed statutory standards through a systematic management structure and continuous improvement mechanism. In 2025, the Group continued to strengthen environmental governance, with no major environmental pollution accidents, major safety incidents, or significant administrative penalties due to environmental violations, maintaining stable overall environmental management performance.

環境管理體系與制度
Environmental Management Systems and Regulations

為有效落實環境保護責任，本集團建立了層級分明、權責對應之環境管理組織，並以完備之制度文件為依據，推動環境管理工作之標準化與精細化。

To effectively implement environmental protection responsibilities, the Group has established an environmental management organization with clear levels and corresponding responsibilities and powers, promoting the standardization and refinement of environmental management work based on comprehensive institutional documents.

體系建設與管理架構 System Construction and Management Structure

本集團設立集團層級之能「碳與環安管理中心」，負責統籌制定環境策略、管理方針與監督規範。各業務事業部及附屬子公司均配置專責之環境、健康與安全（EHS）管理單位或人員，負責將集團要求轉化為具體之執行方案與日常作業規範，形成「集團統籌、事業部督導、子公司執行」之三級聯動管理網絡。環境保護目標與關鍵績效指標（KPIs）通過《環保安防目標責任書》等形式，逐級分解至各單位及關鍵崗位，並與績效考核緊密聯結，確保責任落實。

The Group has established a Group-level Energy, Carbon, and EHS Management Center, responsible for overall planning and formulation of environmental strategies, management policies, and supervision norms. Each business division and affiliated subsidiary are equipped with dedicated Environmental, Health and Safety (EHS) management units or personnel, responsible for transforming Group requirements into specific execution plans and daily operational norms, forming a three-tier linkage management network of "Group overall planning, Division supervision, Subsidiary execution". Environmental protection targets and Key Performance Indicators (KPIs) are decomposed level by level to each unit and key position through forms such as the *Environmental Protection and Safety Target Responsibility Agreement*, and are closely linked to performance assessments, ensuring responsibility implementation.

集團能碳與環安管理戰略框架
Energy, Carbon, Environmental and Safety Management Strategy Framework of the Group

製度化管理 Systematic Management

本集團以《天能控股集團環安管理體系制度彙編》作為環境管理之核心框架文件，並定期檢視更新，以因應法規變動與管理實務發展之需。此制度體系涵蓋環境保護之全方位要求，具體包括《環境保護管理制度》《污染物管理制度》《固體廢棄物處置管理制度》《突發環境事件應急管理制度》《清潔生產管理制度》及《環境信息公開管理制度》等。該等制度明確規範了從項目投資評估、工程設計建設、日常生產運營到設施退役之全過程環境管理要求，為合規運營提供明確指引。

The Group takes the *Tianneng Holdings Group Compilation of Environment, Health and Safety Management System Regulations* as the core framework document for environmental management, and regularly reviews and updates it to adapt to regulatory changes and management practice developments. This system framework covers all aspects of environmental protection, specifically including the *Environmental Protection Management System, Pollutant Management System, Solid Waste Disposal Management System, Emergency Management System for Environmental Emergencies, Cleaner Production Management System, and Environmental Information Disclosure Management System*. These systems clearly specify environmental management requirements throughout the entire process from project investment evaluation, engineering design and construction, daily production operations, to facility decommissioning, providing clear guidance for compliance operations.

認證與標準化 Certification and Standardization

推動環境管理國際標準化為本集團長期堅持之方向。截至2025 年底，本集團旗下所有從事製造業務之子公司均已建立並通過 ISO 14001 環境管理體系認證。透過體系之規範化運作與定期內外部審核，系統性地識別、評估與控制環境因素，驅動管理流程之持續優化與環境績效之提升。

Promoting the international standardization of environmental management is a long-term direction for the Group. As of the end of 2025, all subsidiaries of the Group engaged in manufacturing businesses have established and passed ISO 14001 Environmental Management System certification. Through the standardized operation of the system and regular internal and external audits, environmental factors are systematically identified, assessed, and controlled, driving the continuous optimization of management processes and the improvement of environmental performance.

子公司環境管理體系認證證書（部分）
Subsidiary Environmental Management System Certificates (Partial)

環境風險管控與應急準備
Environmental Risk Control and Emergency Preparedness

本集團秉持預防為主和防控結合之原則，致力於從源頭降低環境風險，並建立有效應變能力以應對潛在突發事件。

The Group adheres to the principle of combining prevention and control, committed to reducing environmental risks at the source and establishing effective response capabilities to deal with potential emergencies.

預案體系建設 Emergency Plan System Construction

本集團高度重視環境風險之預防與處置能力，已構建一套涵蓋集團總部、各業務事業部及其下屬所有子公司之系統性突發環境事件應急預案體系。集團旗下所有生產型子公司均嚴格遵照中國與地方生態環境主管機關之規範，編製完成《突發環境事件應急預案》。該等預案內容完整，涵蓋綜合應急預案、針對特定風險類型之專項預案，以及關鍵作業崗位之現場處置方案，並均已向所在地主管機關完成備案程序。

The Group attaches great importance to the prevention and response capabilities for environmental risks, having constructed a systematic emergency plan system for environmental emergencies covering the Group headquarters, various business divisions, and all their subordinate subsidiaries. All production-oriented subsidiaries of the Group strictly comply with the regulations of Chinese and local ecological and environmental authorities, compiling complete *Emergency Plans for Environmental Emergencies*. The content of these plans is comprehensive, covering comprehensive emergency plans, special plans for specific risk types, and on-site disposal plans for key operational positions, and all have completed the filing process with the local competent authorities.

項目階段 Project Phase	核心環境管理活動 Core Environmental Management Activity	內容簡要說明 Brief Description of Content	管理目標 Management Objectives
前期規劃與設計 Preliminary Planning and Design	環境盡職調查：識別潛在環境與生態多樣性風險。 Environmental Due Diligence: Identify potential environmental and biodiversity risks. 初步影響評估：評估方案之環境可行性。 Preliminary Impact Assessment: Assess the environmental feasibility of options.	環境盡職調查報告、生態敏感區域篩查記錄、項目方案環境比選分析。 Environmental due diligence reports, ecologically sensitive area screening records, environmental analysis of project option comparison.	風險預防：避免或最大限度減少項目對生態環境之潛在不利影響。 Risk Prevention: Avoid or minimize potential adverse impacts of the project on the ecological environment.
實施前審批 Pre-construction Approval	法定環境影響評價：編製報告書 / 報告表，並獲取批復。 Statutory Environmental Impact Assessment(EIA): Prepare reports/forms and obtain approvals. 同步辦理許可：申請排污許可證、制定環境應急預案。 Permit application: Apply for pollutant discharge permits, and formulate environmental emergency plans.	環評報告及批復文件、排污許可證、突發環境事件應急預案。 EIA reports and approval documents, pollutant discharge permits, emergency plans for environmental emergencies.	合規保障：確保項目於開工建設前，全面滿足所有法定環保要求。 Compliance Assurance: Ensure the project fully meets all statutory environmental requirements before construction commencement.
建設與實施 Construction and Implementation	落實環評措施：嚴格按批復要求施工。 Implement EIA Measures: Strictly construct according to approval requirements. 現場環境監理：監控施工期之污染控制與生態保護。 On-site Environmental Supervision: Monitor pollution control and ecological protection during the construction period.	環保措施落實情況報告、施工期環境監測數據。 Reports on the implementation of environmental measures, and environmental monitoring data of construction.	過程控制：於建設過程中管理與減緩實際環境影響。 Process Control: Manage and mitigate actual environmental impacts during construction.

項目階段 Project Phase	核心環境管理活動 Core Environmental Management Activity	內容簡要說明 Brief Description of Content	管理目標 Management Objectives
運營與持續監控 Operation and Continuous Monitoring	依法自主驗收：試運行後開展竣工環保驗收並公示報告。 Legally Conduct Independent Acceptance: Carry out post-construction environmental protection acceptance and publicly announce the report after trial operation. 系統化自行監測：建立監測體系，持續追蹤排放與環境表現。 Systematic Self-Monitoring: Establish monitoring systems to continuously track emissions and environmental performance.	竣工環境保護驗收報告、自行監測方案與年度執行報告。 Post-construction environmental protection acceptance report, self-monitoring plan and annual implementation report.	績效驗證與改進：驗證環保措施有效性，並推動持續改善。 Performance Verification and Improvement: Verify the effectiveness of environmental measures and promote continuous improvement.
項目終結 Project Closure	退役 / 關閉環境影響評估：制定並實施生態恢復計畫。 Environmental impact assessment of decommissioning/closure: Formulate and implement ecological restoration plans.	項目退役環境管理計畫、場地恢復方案、後評估報告。 Environmental management plan for project decommissioning, site restoration plan, post-assessment report.	生態恢復：負責任地結束項目運營，修復項目用地之生態功能。 Ecological Restoration: Responsibly conclude project operations and restore the ecological function of the project site.

集團環境管理流程
Group Environmental Management Process

上述流程構成本集團環境管理之核心框架，貫穿項目全生命週期。

The above process constitutes the core framework of the Group's environmental management, runs through the entire project lifecycle.

預案動態管理 Dynamic Plan Management

本集團嚴格執行應急預案之定期評估與更新機制。在未發生重大變更之情況下，要求各子公司每三年對預案進行全面修訂並重新備案。若生產工藝、設備、主要風險源或相關法律法規發生重大變化，則立即啟動預案修編程序，以確保預案內容持續具備針對性與可操作性，與實際風險狀況及法規要求保持同步。

The Group strictly implements a regular assessment and update mechanism for emergency plans. In the absence of major changes, each subsidiary is required to comprehensively revise and re-file plans every three years. If significant changes occur in production processes, equipment, major risk sources, or relevant laws and regulations, the plan revision process is immediately initiated to ensure the content of the plans remains targeted and operable, keeping pace with actual risk conditions and regulatory requirements.

應急演練與能力建設理 Emergency Drills and Capacity Building

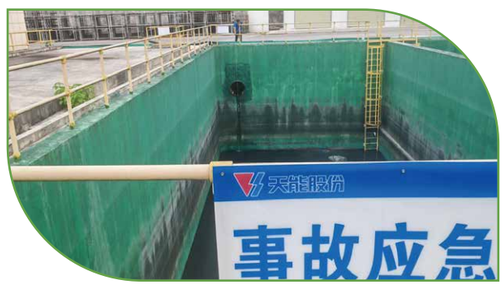
為有效驗證預案之適用性，並提升員工之應急處置技能，本集團規定並督導各子公司每年至少組織兩次環境應急演練。2025 年度，各子公司圍繞其主要環境風險，包括但不限於危險化學品洩漏、酸液等液態污染物洩漏、廢水處理設施異常導致之排放風險，以及洪澇、颱風等極端天氣事件，組織開展了形式多樣之實戰演練與桌面推演。每次演練結束後，均進行效果評估與總結，針對所發現之問題，及時對應急預案及處置流程進行優化調整。與此同時，本集團持續投入資源，配備、維護及更新各類應急物資、裝備與設施，確保應急響應資源之完備與可靠。

To effectively verify the applicability of plans and enhance employees' emergency response skills, the Group stipulates and supervises each subsidiary to organize at least two environmental emergency drills annually. In 2025, subsidiaries organized various practical drills and desktop exercises focusing on their major environmental risks, including but not limited to hazardous chemical leaks, leakage of liquid pollutants such as acid, discharge risks caused by abnormalities in wastewater treatment facilities, and extreme weather events such as floods and typhoons. After each drill, an effectiveness evaluation and summary were conducted, and emergency plans and disposal procedures were promptly optimized and adjusted based on identified issues. Simultaneously, the Group continuously invests resources, equipping, maintaining, and updating various emergency materials, equipment, and facilities to ensure the completeness and reliability of emergency response resources.









酸性液態污染物洩漏應急處置演練
Emergency Drill for Acidic Liquid Pollutant Leak

環境保護相關培訓
Environmental Protection Training

本集團建立了常態化、多層次環境保護培訓教育機制。通過涵蓋法律法規、專業技能、「雙碳」戰略及全員意識之系統化培訓內容，持續提升全體員工之環保素養與合規操作能力，為環境管理體系之穩健運行提供堅實之人才保障。

The Group has established a normalized, multi-level environmental protection training and education mechanism. Through systematic training content covering laws and regulations, professional skills, Dual-Carbon strategy, and full employee awareness, it continuously enhances all employees' environmental literacy and compliance operation capabilities, providing a solid talent guarantee for the stable operation of the environmental management system.

培訓體系與內容 Training System and Content

本集團旨在通過常態化之環境保護培訓，全面提升員工之環保意識、法律認知與操作技能。培訓內容體系化，主要包括：

The Group aims to comprehensively enhance employees' environmental awareness, legal knowledge, and operational skills through normalized environmental protection training. The training content is systematic, mainly including:

環保法律法規與制度培訓 Environmental Laws, Regulations, and Policy Training

確保各層級管理人員及關鍵崗位員工熟知中國、地方環保法規及內部環境管理制度之要求。

Ensure managers at all levels and key position employees are familiar with national and local environmental regulations and internal environmental management system requirements in China.

專項業務技能培訓 Specialized Business Skills Training

針對污染物治理設施操作人員、環境監測人員、危廢管理員等，開展崗位操作規程、設備維護保養、風險辨識等專業技能培訓。

Conduct professional skills training on post operating procedures, equipment maintenance, and risk identification for pollutant treatment facility operators, environmental monitors, hazardous waste managers, etc.

「雙碳」與節能專項培訓 Dual-Carbon and Energy Conservation Special Training

圍繞中國「雙碳」戰略目標，組織開展低碳發展路徑、能源管理方法、節能技術應用等主題培訓，提升相關人員之專業能力。

Centered on China's "Dual-Carbon" strategic goals, organize and conduct training on themes such as low-carbon development pathways, energy management methods, and application of energy conservation technologies to enhance the professional capabilities of relevant personnel.

全員環保意識提升 Full Employee Environmental Awareness Enhancement

通過新員工入職培訓、日常宣傳活動、內部刊物、宣傳欄等多種形式，倡導綠色辦公、節水節電、垃圾分類等環保行為，營造全員參與環保的文化氛圍。

Promote environmental behaviors such as green office, water and electricity conservation, and waste sorting through various forms including new employee induction training, daily promotional activities, internal publications, and bulletin boards, creating a cultural atmosphere of full participation in environmental protection.

培訓實施與成效 Training Implementation and Effectiveness

2025 年度，本集團總部、各事業部及子公司共組織開展各類環保、安全、職業健康主題培訓超過 20 場，累計參訓達數千人次。培訓對象覆蓋從高層管理者、環保專員至一線班組長及操作工人之全體員工。通過系統性之培訓，有效強化了員工之環境合規意識，降低了因人為操作失誤導致之環境風險，為本集團長期穩定合規運營奠定了堅實之人才基礎。

In 2025, the Group headquarters, business divisions, and subsidiaries organized and conducted over 20 various training sessions on environmental, safety, and occupational health themes, with thousands of participants in total. The training participants covered all employees from senior managers and environmental specialists to frontline team leaders and operators. Through systematic training, employees' environment compliance awareness was effectively strengthened, environmental risks caused by human operational errors were reduced, laying a solid talent foundation for the Group's long-term stable compliance operation.

案例 Case

創新理念增強責任體系，精技提效鞏固環安保障
Innovative Concepts for Responsibility Strengthening, Skill Improvement and Efficiency Enhancement Consolidate Environmental and Safety Guarantees

為進一步提升環保安防隊伍的專業能力，強化團隊凝聚力，推動環保安防管理水平再上新臺階，根據 2025 年度培訓計劃，由鉛蓄電池事業部環保安防管理部組織，在 11 月 13—11 月 14 日開展決勝 85 攻堅季環安培訓班。

In order to further enhance the professional capabilities of the environmental protection and security team, strengthen team cohesion, and promote environmental protection and security management to a new level, the Environmental Protection and Security Management Department of the Lead Battery Products Division, in accordance with the 2025 training plan, organized the "Decisive 85" Critical Season EHS Training Session, which was hosted by Tianneng Henan on November 13-14, 2025.

本次培訓共有 13 家單位，34 名環安條線人員參與。培訓通過對排污許可管理體系講解、職業性鉛危害防治、用電專業知識培訓等相關主題內容的講解及互動，使學員充分瞭解到環保安防相關專業知識，針對不同風險未來能有效識別及防範，加強了環保安防從「滅火隊」到「主動預防」的角色轉變。

The training involved 34 environmental and safety personnel from 13 units. Through explanations and interactions on the pollutant discharge permit management system, prevention and control of occupational lead hazards, and electrical knowledge, participants fully understood relevant expertise in environmental protection and safety, enabling effective identification and prevention of risks in the future, and strengthening the role transformation of environmental and safety personnel from "solution" to "active prevention."

內部環保審核現場
Internal Environmental Audit Site

環境監測
Environmental Monitoring

本集團建立了「內部自測、委託監測與在線監控」相結合之全方位環境監測體系。通過制定並嚴格執行監測方案，規範管理監測數據，並依法履行信息公開義務，實現對污染物排放與周邊環境質量之實時、有效監控，確保環境績效之透明與合規。

The Group has established a comprehensive environmental monitoring system combining "internal self-testing, entrusted monitoring, and online monitoring." By formulating and strictly implementing monitoring plans, standardizing monitoring data management, and fulfilling information disclosure obligations according to law, it achieves real-time, effective monitoring of pollutant emissions and surrounding environmental quality, ensuring transparency and compliance of environmental performance.

監測體系與能力建設 Monitoring System and Capacity Building

本集團構建了「內部自測、委託監測與在線監控」相結合之多層次、立體化環境監測體系，對污染物排放狀況及周邊環境質量實施全方位監控。集團及部分重點子公司配備了專業之環境監測實驗室，擁有氣相層析儀、原子吸收光譜儀等儀器設備，具備開展廢水、廢氣中常規污染物及部分特徵污染物之內部手工監測能力，用於日常管控與數據核對。

The Group has constructed a multi-level, three-dimensional environmental monitoring system combining "internal self-testing, entrusted monitoring, and online monitoring," implementing all-round monitoring of pollutant emission status and surrounding environmental quality. The Group and some key subsidiaries are equipped with professional environmental monitoring laboratories, possessing instruments such as gas chromatographs and atomic absorption spectrophotometers, with internal manual monitoring capabilities for conventional pollutants and certain characteristic pollutants in wastewater and exhaust gases for daily control and data verification.

監測方案與執行 Monitoring Plan and Implementation

各子公司均嚴格按照《排污許可證》載明之許可事項、中國發布之《排污單位自行監測技術指南》以及當地生態環境主管部門之要求，制定年度《自行監測方案》。該方案明確了監測點位、監測因子、監測頻次、執行標準及信息公開方式。

All subsidiaries strictly formulate the annual *Self-monitoring Plan* in accordance with the permitted items stated in the *Pollutant Discharge Permit*, the *Technical Guidelines for Self-monitoring of Polluting Units* issued by China, and the requirements of the local ecological environment department. This plan specifies the monitoring locations, monitoring factors, monitoring frequencies, implementation standards, and information disclosure methods.

在監測執行層面，一方面委託具備 CMA 資質之第三方檢測機構進行定期監測；另一方面，對於納入重點排污單位名錄之子公司，按要求在廢氣、廢水總排口等關鍵點位安裝污染物線上自動監測設施，將監測數據即時上傳至生態環境部門之監控平臺，實現排放情況之連續動態監管。

At the monitoring execution level, on one hand, third-party testing institutions with CMA qualifications are entrusted for regular monitoring; on the other hand, for subsidiaries included in the list of key pollutant discharging units, pollutant online automatic monitoring facilities are installed at key points such as exhaust gas and wastewater outlets as required, with monitoring data uploaded in real-time to the ecological and environmental authority's monitoring platform, achieving continuous dynamic supervision of emissions.

污染源在線自動監測設施
Online Automatic Monitoring Facility of Pollutant Source

數據管理與信息公開 Data Management and Information Disclosure

所有監測活動均保留完整之原始記錄，形成規範之環境管理臺賬。監測數據由各子公司環安部門進行匯總、分析與上報。本集團嚴格執行環境信息公開制度，依照法律法規要求，定期向社會公開自行監測結果、排污許可證執行情況、污染防治設施建設運行情況等環境信息，主動接受政府監管與社會公眾之監督，保障公眾之環境知情權與參與權。

All monitoring activities maintain complete original records, forming standardized environmental management ledgers. Monitoring data is collected, analyzed, and reported by the Environment, Health and Safety departments of each subsidiary. The Group strictly implements the environmental information disclosure system, regularly disclosing environmental information such as self-monitoring results, implementation status of pollutant discharge permits, and construction and operation status of pollution prevention facilities to the public in accordance with laws and regulations, actively accepting government supervision and public oversight, safeguarding the public's right to know and participate in environmental matters.

案例 Case　推進環安信息化平臺
Promoting Environmental and Safety Information Platform

本集團於 2025 年已成功實現環保安防證照許可、風險分級管控、隱患排查治理、作業安全、事故管理五大核心業務之線上化管理，標誌著數字化環安管理邁出關鍵一步。目前，環安信息化平臺已覆蓋用戶超過 20,000 人。該平臺系統性地梳理了環安核心數據，為後續信息化平臺之升級奠定了堅實基礎，推動本集團之環境健康安全管理模式，逐步從「經驗驅動」轉向「數據驅動」。

In 2025, the Group successfully achieved online management of five core businesses: environment, health and safety licenses and permits, risk hierarchical control, hazard investigation and control, operational safety, and accident management, marking a critical step in digital environment, health and safety management. Currently, the environment, health and safety information platform covers over 20,000 users. This platform systematically sorts out core environment, health and safety data, laying a solid foundation for subsequent upgrades of the information platform, and promoting the Group's environmental, health and safety management model to gradually shift from "experience-driven" to "data-driven."

生態系統和生物多樣性保護 Ecosystem and Biodiversity Protection

本集團將生態系統和生物多樣性保護深度融入企業戰略與管治架構，通過董事會及工作小組進行頂層監督，並將該議題納入年度雙重重要性評估矩陣。集團嚴格承諾所有新建或改擴建項目均須執行環境影響評價，並確保符合中國「三線一單」生態環境分區管控要求，即生態保護紅線、環境質量底線、資源利用上線和生態環境準入清單，從決策源頭主動避讓生態保護紅線等敏感區域，以制度性保障預防對生物多樣性的直接衝擊。

The Group deeply integrates ecosystem and biodiversity protection into its corporate strategy and governance framework. It conducts top - level supervision through the board of directors and working groups, and incorporates this issue into the annual double - materiality assessment matrix. The Group strictly commits that all new, renovated or expanded projects must carry out environmental impact assessments and ensure compliance with China's "Three Lines and One List" ecological environment zoning control requirements, namely, the ecological protection red line, the environmental quality baseline, the upper line of resource utilization, and the ecological environment access list. It proactively avoids sensitive areas such as the ecological protection red line from the decision - making source to prevent direct impacts on biodiversity through institutional safeguards.

本集團建立由總部、事業部至子公司的三級環境管理體系，由「能碳與環安管理中心」主導項目前期的生態風險篩查與內審，確保在規劃階段即識別並規避生物多樣性敏感區域。在實施層面，集團通過構建覆蓋全國的「鉛＋鋰」電池回收網絡與綠色閉環產業鏈，大幅減少對原生礦產資源的開採需求，從而間接降低因採礦活動所導致的棲息地破壞、土壤侵蝕及水污染等對生態系統的累積壓力。

The Group has established a three-tier environmental management system from headquarters to business divisions and subsidiaries, with the Energy, Carbon, Environment, health and safety Management Center leading ecological risk screening and internal audits in the early stages of projects, ensuring identification and avoidance of biodiversity-sensitive areas during the planning phase. At the implementation level, the Group, through constructing a nationwide "Lead&Lithium" battery recycling network and green closed-loop industrial chain, significantly reduces the demand for primary mineral resource extraction, thereby indirectly alleviating cumulative pressure on ecosystems caused by mining activities, such as habitat destruction, soil erosion, and water pollution.

本集團以提升資源循環效率為核心目標，通過量化目標驅動減少對原生礦產的依賴，從源頭緩解對生態系統的擾動。同時，集團依託 ISO 14001 環境管理體系及常態化內部審核機制，對各運營基地實施嚴格環境監測與績效考核，確保環境合規並持續減輕運營對周邊生態環境的影響，實現生物多樣性保護的系統化管理與持續改進。

With the core goal of improving resource recycling efficiency, the Group reduces reliance on primary minerals driven by quantified targets, thereby mitigating disturbances to the ecosystem at the source. Meanwhile, relying on the ISO 14001 Environmental Management System and normalized internal audit mechanisms, the Group implements strict environmental monitoring and performance assessments at each operating base, ensuring environment compliance and continuously mitigating the impact of operations on the surrounding ecological environment, achieving systematic management and continuous improvement of biodiversity protection.

案例 Case　嚴格的項目前期評估與源頭風險規避
Rigorous Pre-Project Evaluation and Source Risk Avoidance

集團在項目實施前，進行嚴格的環境影響評估，明確承諾所有項目將落實防治環境污染和生態保護的各項措施，從源頭上規避對生態敏感區域的潛在負面影響。集團「能碳與環安管理中心」負責項目前期的規劃、設計與方案內審，主導環境盡職調查和生物多樣性敏感區域篩查，以實現風險預防，避免或最小化項目對生態環境的潛在不利影響。

Before project implementation, the Group conducts rigorous environmental impact assessments, explicitly committing that all projects will involve measures for pollution prevention and ecological protection, thereby avoiding potential negative impacts on ecologically sensitive areas at the source. The Group's Energy, Carbon, and EHS Management Center is responsible for planning, design, and internal review of plans in the early stages of projects, leading environmental due diligence and biodiversity-sensitive area screening for risk prevention and no or minimum potential adverse impact on the ecology.

防治環境污染和生態保護現場盡調
Field Investigation on Environmental Pollution Prevention and Ecological Protection

03

社會篇

Social Section

創新驅動
共創社會福祉新里程

Upholding Integrity, Ensuring Steady and Long-Term Corporate Development

創新驅動發展 Innovation-Driven Development

本集團始終將社會責任融入企業發展的實踐中，堅持以人為本、責任共擔、價值共享。本集團聚焦員工福祉與成長，構建安全、健康、包容的工作環境；推動負責任的供應鏈管理，攜手合作夥伴踐行 ESG 理念；深耕鄉村振興與民生公益，以切實行動反哺社區、服務社會。通過創新驅動與人文關懷雙輪並進，天能持續將企業勢能轉化為普惠性社會價值，彰顯新時代企業的使命擔當。

The Group always integrates social responsibility into its corporate development practices, adhering to people-orientation, shared responsibility, and shared value. The Group focuses on employee welfare and growth, building a safe, healthy, and inclusive working environment; promotes responsible supply chain management, jointly with partners to practice ESG concepts; deeply cultivates rural revitalization and people's livelihood public welfare, giving back to communities and serving society through concrete actions. Through the dual-wheel drive of innovation and humanistic care, Tianneng continuously transforms corporate potential into inclusive social value, demonstrating the mission and responsibility of an enterprise in the new era.

創新研發 Innovation and R&D

科創體系建設
Technology Innovation System Construction

天能持續健全和完善科技創新管理體系，系統構建覆蓋「端到端」全生命週期的研發管理機制。集團已制定並實施《重大研發項目管理辦法》《研發項目管理辦法》《科研項目管理辦法》《技術研發成果抽樣檢測規定》及《技術標準管理辦法》等涵蓋科研體系運行、平臺建設、產學研協同、知識產權保護及創新激勵等多個維度的創新管理制度。同時各事業部也結合業務特點，制定了更具針對性的覆蓋從項目立項、過程開發、工藝控制、評審驗收直至成果轉化全流程的管理、評審規範。

Tianneng continuously improves and perfects its technological innovation management system, systematically constructing an R&D management mechanism covering the "end-to-end" full lifecycle. The Group has formulated and implemented innovation management systems covering multiple dimensions including the operation of the scientific research system, platform construction, Industry-academia-research collaboration, intellectual property protection, and innovation incentives, such as the *Management Measures for Major R&D Projects*, *Management Measures for R&D Projects*, *Management Measures for Scientific Research Projects*, *Provisions for Sampling Inspection of Technology R&D Achievements*, and *Management Measures for Technical Standards*. Simultaneously, each business division, based on its business characteristics, has formulated more targeted management and review specifications covering the entire process from project initiation, process development, process control, review and acceptance, to achievement transformation.

為強化制度落地與能力建設，天能持續優化集團科技創新管制架構：

To strengthen the implementation of systems and capacity building, Tianneng continuously optimizes its corporate technological innovation governance structure:

集團設立科技創新委員會，定期召開科技工作會議，對研發戰略規劃和年度計劃進行審議與動態優化，確保創新方向與本集團發展高度協同。

The Group establishes a Science and Technology Innovation Committee, convening regular technology work meetings to review and dynamically optimize R&D strategic plans and annual plans, ensuring high synergy between innovation direction and Group development.

科技創新委員會下轄科技管理中心，負責科技創新日常執行管理工作。

Under the Science and Technology Committee, the Technology Management Center is responsible for the daily execution and management of technology innovation.

各業務單位與子公司負責科技創新工作的具體實施落地。

Each business units and subsidiaries are responsible for the specific implementation of the new scientific and innovation works.

信息披露合規培訓 Information Disclosure Compliance Training

集團建立了科學系統的科技創新能力評價體系，設置「創新組織、創新管理、創新產出、加減分項」四大一級指標，細化出包括項目執行規範度、發明專利受理數量、行業影響力等 13 項共性指標，並結合不同研發單元特點配置定制化考核內容。評價體系採用「常規工作 + 創新工作」雙軌並行模式：一方面評估項目進度、技術降本達成率等基礎任務完成情況；另一方面重點考察技術路徑、降本方法等方面的創新性，深入識別研發過程中的瓶頸問題，精準制定改進舉措。

The Group has established a scientific and systematic technology innovation capability evaluation system, setting four primary indicators: "Innovation Organization, Innovation Management, Innovation Output, Addition and Deduction Items." It refines 13 common indicators including project execution standardization, number of invention patent applications, and industry influence, and configures customized assessment content based on the characteristics of different R&D units. The evaluation system adopts a dual-track model combining "routine work+innovation work": on one hand, it assesses the completion of basic tasks such as project progress and technology-driven cost reduction target achievement rate; on the other hand, it focuses on examining innovativeness in technical paths and cost reduction methods, deeply identifying bottlenecks in the R&D process, and precisely formulating improvement measures.

科創激勵機制 Technology Innovation Incentive System

本集團全面推行分類分級激勵政策，針對產品開發、專利申請、論文發表等不同類型的創新成果設定差異化獎勵標準，並對成功驗收的重點項目設立專項獎金。2025 年推出激勵新政——將薪酬激勵與承擔項目數量掛鈎、現金獎勵與項目貢獻度掛鈎、中長期激勵與股權綁定，切實將激勵資源向核心技術突破和高價值創新成果傾斜，激發科研人員的創新活力與內生動力。

The Group comprehensively implements a categorized and tiered incentive policy, setting differentiated reward standards for different types of innovation achievements such as product development, patent applications, and paper publications, and establishing special bonuses for successfully accepted key projects. In 2025, it launched new incentive policies – linking compensation incentives to the number of projects undertaken, cash rewards to project contribution, and medium-to-long-term incentives to equity, effectively tilting incentive resources towards core technology breakthroughs and high-value innovation achievements, stimulating the innovation vitality and endogenous motivation of scientific researchers.

子公司創新管理體系 ISO 56005 國際標準認證證書
Subsidiary Innovation Management System ISO 56005 International Standard Certification Certificate

科創策略
Technology Innovation Strategy

天能深信「科技創新是引領可持續發展的核心引擎」。本集團始終秉承前瞻性技術佈局，通過優化科研管理架構與資源配置，致力於攻克行業關鍵技術瓶頸，構建技術領先優勢。

Tianneng firmly believes that "technological innovation is the core engine leading sustainable development." The Group always adheres to forward-looking technology layout, and is committed to overcoming key industry technological bottlenecks and building technological leadership advantages through optimizing scientific research management structures and resource allocation.

策略引領與前瞻技術攻堅 Strategy Leadership and Forward-looking Technological Breakthrough

顛覆性技術突破：本集團堅持技術溯源，聚焦顛覆性新品的研發，通過技術革新優化成本結構，開創「開源節流」的業務增長新範式。

Disruptive Technology Breakthroughs: The Group adheres to technological origination, focusing on the R&D of disruptive new products, optimizing cost structures through technological innovation, and creating a new paradigm for business growth of "increasing revenue and reducing costs."

確立行業卓越地位：制定並嚴格執行中長期科技創新策略，對標國際技術前沿，旨在通過斬獲國家級科技進步獎等核心榮譽，不斷刷新企業技術高度，鞏固行業先鋒地位。

Establishing Industry Excellence: Formulate and strictly implement medium-to-long-term technology innovation strategies, benchmark against international technology frontiers, aiming to continuously refresh the Company's technological height and consolidate its industry pioneer position by winning core honors such as the National Science and Technology Progress Award.

管理賦能與研發效能優化 Management Empowerment and R&D Efficiency Optimization

深化 IPD 體系應用：全面實施高標準的集成產品開發（IPD）研發管理體系，實現從需求洞察至產品上市的全流程規範化管理，確保研發過程的科學性與成果轉化的高效性。

Deepening IPD System Application: Fully implement a high-standard Integrated Product Development (IPD) R&D management system, achieving standardized management of the entire process from demand insight to product launch, ensuring the scientific nature of the R&D process and the efficiency of achievement transformation.

資源精準投放：動態優化研發投入結構，聚焦優質資源支持關鍵核心技術攻關，提升科技投入產出比，確保研發項目的市場精準度與技術領先地位。

Precise Resource Allocation: Dynamically optimize the structure of R&D investment, focus quality resources on supporting key core technology breakthroughs, improve the technology input-output ratio, and ensure the market accuracy and technological leadership of R&D projects.

創新生態與人才資本建設 Innovation Ecosystem and Talent Capital Construction

完善創新體制機制：將制度創新與機制建設視為支撐科技發展的基石，通過完善的激勵政策與管制框架，激發組織創新活力。

Improve Innovation Systems and Mechanisms: Regard institutional innovation and mechanism construction as the cornerstone supporting technological development, stimulating organizational innovation vitality through sound incentive policies and governance frameworks.

構築高端人才高地：將研發梯隊建設視為企業核心資本，持續投入人才培養與引進，為本集團的長期技術跨越與可持續發展提供穩健的智力支持。

Build a High-End Talent Hub: Consider the construction of the R&D echelon as the core capital of the enterprise, continuously invest in talent development and introduction, providing stable intellectual support for the Group's long-term technological leapfrogging and sustainable development.

科創成效
Technology Innovation Achievements

天能持續增加科研投入，突破多個技術瓶頸，不斷提高行業引領水平，在本集團綠色低碳轉型和降本增效方面起到積極作用。2025 年，本集團研發投入約人民幣 201,313 萬元，研發投入強度約 3.74%。

Tianneng continuously increases scientific research investment, breaking through multiple technological bottlenecks, continuously improves industry leadership, playing a positive role in the Group's green and low-carbon transformation and cost reduction and efficiency enhancement. In 2025, The Group's R&D investment was approximately RMB 201,313 million, and the intensity of R&D investment was approximately 3.74%.

科技創新優秀企業獎

Science and Technology Innovation Outstanding Enterprise Award

"2025 年浙江省碳达峰碳中和十大科技创新" 名单

成果名称	完成单位
县域碳核算与碳中和科技-决策-应用集成创新	浙江生态文明研究院、浙江省发展规划研究院、浙江大学、天能电池集团
无人机大气温室气体高精度检测装备的研制及其应用研究	浙江工业大学、浙江省环境科学学会、浙江省杭州生态监测中心、宁波诺藤耀环保科技有限公司
基于 CO_2 绿色低温转化合成碳材料及其储能应用	浙江工业大学
近岸海域污染智能溯源防控与生境修复技术	浙江海洋大学、浙江大学、交通运输部天津水运工程科学研究所、中国环境监测总站、国家海洋环境监测中心、禹治环境科技（浙江）有限公司
服务新能源发展的低碳电力基础设施建设关键技术的创新与实践	国网浙江省电力有限公司、国网浙江省电力有限公司经济技术研究院、国网浙江省电力有限公司宁波供电公司、国网浙江省电力有限公司湖州供电公司、国网浙江省电力有限公司丽水供电公司
兆瓦级小型天然气混氢燃机	浙江浙能技术研究院有限公司、浙江浙能萧兴燃料有限公司、浙江浙能电力股份有限公司萧山发电厂、浙江浙能燃料集团有限公司、上海慕帆动力科技有限公司
钢铁行业碳减排关键技术及应用	浙江菲达环保科技股份有限公司、宁钢钢铁有限公司、浙江省环保集团生态环境科技有限公司、浙江大学、浙江工业大学、中国矿业大学、华中科技大学、浙江环保集团有限公司
大陈镇低（零）碳乡镇建设实践探索	大陈镇人民政府、清华大学地球系统科学系、广东省科学院生态环境与土壤研究所
医疗废物非焚烧就地化智能处理装备	浙江微盾环保科技有限公司
基于混合储能的多能耦合智慧低碳电力/热力供应关键技术示范项目	桐乡聚能启泰储能科技有限公司、浙江物产环保能源股份有限公司

子公司「縣域碳覈算與碳中和科技 - 決策 - 應用集成創新」成果榮獲「浙江省碳達峰碳中和十大科技創新成果

Subsidiary's achievement "County-level Carbon Accounting and Carbon Neutrality Technology-Decision-Application Integrated Innovation" was awarded "Zhejiang Province Top Ten Scientific and Technological Innovation Achievements for Carbon Peak and Carbon Neutrality

合作與交流 Collaboration and Exchange

在當今新能源產業蓬勃發展的浪潮中，天能投身於各類行業活動與合作，積極整合企業、高校、科研院所等力量，強化產學研協同創新。

Amidst the current booming wave of the new energy industry, Tianneng engages in various industry activities and cooperation, actively integrating forces from enterprises, universities, and research institutes, strengthening Industry-academia-research cooperation collaboration innovation.

天能在國際知名展會展示前沿產品與技術、參與重要政策研討座談會以及深化產學研協同創新等多維度舉措，並積極參與儲能、新能源電池等領域行業展會，展示多技術路線產品與解決方案，簽署策略合作協議，全方位推動著行業協同發展。同時，本集團大力推進產學研合作，攜手高校與科研機構開展聯合研發、人才培養等活動，整合各方優勢資源，加速科技成果轉化，推動企業技術創新與產業升級。

Tianneng showcases cutting-edge products and technologies at internationally renowned exhibitions, participates in important policy discussion symposiums, and deepens Industry-academia-research cooperation collaboration innovation through multi-dimensional measures. It actively participates in industry exhibitions in fields such as energy storage and new energy batteries, showcasing products and solutions across multiple technology routes, signing strategic cooperation agreements, comprehensively promoting industry collaborative development. Simultaneously, the Group vigorously advances industry-university-research cooperation, joining hands with universities and research institutions to carry out activities such as joint R&D and talent development, integrating advantageous resources from all parties, accelerating the transformation of scientific and technological achievements, and promoting enterprise technological innovation and industrial upgrading.

2025 年，集團與浙江大學、中南大學等多所高校，圍繞鉛蓄電池、鋰離子電池、電池回收等領域開展共 8 項產學研項目合作，取得了亮眼成果。

In 2025, the Group cooperated with multiple universities including Zhejiang University and Central South University, carrying out a total of 8 Industry-academia-research cooperation projects in fields such as lead-acid batteries, lithium-ion batteries, and battery recycling, achieving remarkable results.

本集團於天津舉行的動力電池新品發佈會上，發佈了天能電池新國標系列、天能鉑金雲動力二代、天能鉑金高性能鋰電、天能充電器及氫能共享二輪車解決方案等多款新品，並聯合綠源、斐兔，推出兩輪電動車專用的「磐石」半固態電池。

At the power battery new product launch event held in Tianjin, the Group released multiple new products including the Tianneng Battery New National Standard Series, Tianneng Platinum Cloud Power Generation II, Tianneng Platinum High-Performance Li-ion Battery, Tianneng Charger, and Hydrogen Energy Shared Two-Wheeler Solutions. It also jointly launched the "Rock" semi-solid battery specifically for two-wheeled electric vehicles with Greenway and Felo.

知識產權保護 Intellectual Property Protection

天能重視知識產權管理，為提升了知識產權保護意識，集團 2025 年修訂了《專利管理辦法》《商標管理辦法》，健全了專利全生命週期管理體系，提升了科研管理能力。

Tianneng attaches importance to intellectual property management. To enhance intellectual property protection awareness, the Group revised the *Patent Management Measures* and *Trademark Management Measures* in 2025, improving the full lifecycle patent management system and enhancing scientific research management capabilities.

指標 Indicators	單位 Unit	2025
有效專利總數 Total Number of Valid Patents	件 Items	4,192
軟件著作權數量 Number of software copyrights	件 Items	104
發明專利申請新增數 New Invention Patent Applications	項 Items	373
發明專利授權新增數 New Invention Patent Grants	項 Items	167
新增專利申請 New Patent Applications	項 Items	840
新增專利授權 New Patent Grants	項 Items	599
累計實用新型數量 Cumulative Utility Model Patents	項 Items	3,030

塑造人才強隊 Building a Talented Team

天能始終將員工視為企業發展的核心力量，以員工需求為導向開展工作，持續增強員工的歸屬感與幸福感，凝聚推動企業穩健發展與長期成長的內生合力。

Tianneng always regards employees as the core force of enterprise development, conducting work guided by employee needs, continuously enhancing employees' sense of belonging and well-being, condensing the endogenous joint force that drives the Company's stable development and long-term growth.

合規僱傭 Compliant Employment

天能嚴格遵從《中華人民共和國勞動法》《中華人民共和國未成年人保護法》及《中華人民共和國社會保險法》等法律法規，制定《員工入職和試用期管理辦法》《勞動紀律與員工行為規範管理辦法》及《員工考勤管理制度》，建立合法合規、公平公正的人才招聘和管理體系。本集團堅持公開、公平、競爭、擇優的原則進行招聘，不因性別、年齡、民族、種族、宗教信仰等因素區別對待，所有員工依法簽訂勞動合同，明確勞動關係，平等享有本集團各項福利待遇，並依法為員工繳納社會保險及住房公積金，維護員工勞動經濟權益。

Tianneng strictly complies with laws and regulations such as the *Labor Law of the People's Republic of China*, the *Law of the People's Republic of China on the Protection of Minors*, and the *Social Insurance Law of the People's Republic of China*. It has formulated the *Management Procedures for Employee Recruitment and Probation Period*, *Management Procedures for Labor Discipline and Code of Conduct of Employees*, and *Employee Attendance Management System*, as well as a legal, compliant, fair, and just talent recruitment and management system. Adhering to the principles of openness, fairness, competition, and merit-based selection in recruitment, without discrimination based on gender, age, ethnicity, race or religious belief etc., all employees are required to sign a labor contract inaccordance with the laws and regulations, which specifies labor relations, and equal access to the Group various benefits. The Group also pays social insurance and housing provident fund for employees according to the laws and regulations, safeguarding employees' labor and economic rights and interests.

本集團堅決杜絕僱傭童工與強制勞工，開展反歧視、反強迫勞動、反童工管理，入職系統強制管控，未滿 18 歲未成年人不予發起流程；在勞動合同中明確在以暴力、威脅或者非法限制人身自由的手段強迫勞動的情況下，員工享有解除勞動合同關係權利，確保用工合規合法，保障員工合法權益。

The Group resolutely prohibits the use of child labor and forced labor, and implements management of Anti-Discrimination, Anti-Forced Labor, and Anti-Child Labor. The onboarding system strictly controls this, with processes not initiated for minors under 18. Labor contracts explicitly stipulate that employees have the right to terminate the labor contract relationship in cases of forced labor through violence, threats, or illegal restriction of personal freedom, ensuring employment compliance and legality, and safeguarding employees' legitimate rights and interests.

本集團堅決反對職場霸凌和騷擾，積極構建平等與多元包容的工作環境，實現同工同酬，讓每一位員工都能在工作中找到歸屬感和幸福感。

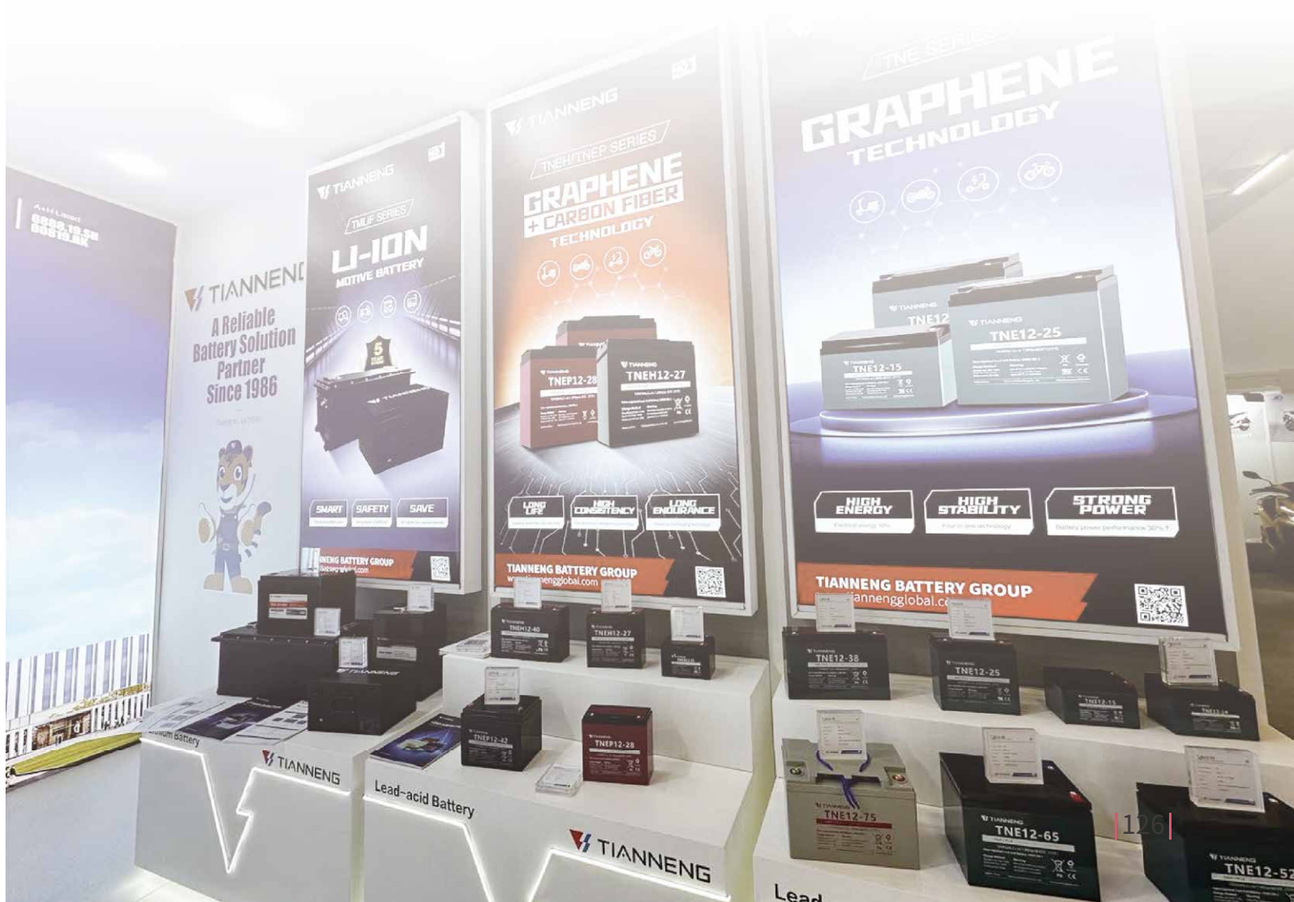
The Group firmly opposes workplace bullying and harassment. Instead, it actively make efforts to build an equal, diverse, and inclusive working environment, featuring equal pay for equal work, so that every employee has a sense of belonging and happiness in work.

報告期內，本集團未發生僱傭童工、強制勞動等違規事件。

During the reporting period, the Group had no violations such as incidents of child labor or forced labor.

本集團不斷優化人才隊伍結構，多措並舉拓寬招聘渠道，通過公開報名、資格審核、360°民主測評、多視角訪談調研等方式進行招聘，結合外部社會及校園招聘實現「內部 + 外部」雙軌並行多渠道引進人才，實現企業人力資源合理配置，打造高素質人才隊伍。

The Group continuously optimizes its talent structure, taking multiple measures to broaden recruitment channels. Recruitment is conducted through open application, qualification review, 360 ° democratic testing, multi-perspective interviews and research. By combining external social recruitment and campus recruitment, the Group introduces talent through a dual-track approach of "internal + external" channels, achieving rational allocation of human resources and building a high-quality talent team.



2025 年天能員工組成

2025 Tianneng Employee Composition

指標 Indicators	單位 Unit	2025
員工總數 Total number of employees	人 People	20,698
女性員工數量 Number of female employees	人 People	7,113
女性員工佔比 Proportion of Female Employees	%	34.37
男性員工數量 Number of male employees	人 People	13,585
男性員工佔比 Proportion of male employees	%	65.63
30 歲及以下員工人數 Number of employees aged 30 and below	人 People	3,117
31-40 歲員工人數 Number of employees aged 31-40	人 People	7,858
41-50 歲員工人數 Number of employees aged 41-50	人 People	6,826
51 歲及以上員工人數 Number of employees aged 51 and above	人 People	2,897
全職員工人數 Number of Full-time Employees	人 People	20,698
兼職員工人數 Number of Part-time Employees	人 People	0
中國內地員工人數 Number of Employees in Mainland China	人 People	20,551
港澳臺地區員工人數 Number of Employees in Hong Kong, Macao, and Taiwan Regions	人 People	2
其他地區員工人數 Number of Employees in Other Regions	人 People	145

2025 年風險控制績效 2025 Risk Control Performance

本集團實行退伍軍人優先招聘政策

2025 年本集團退伍軍人員工 **384** 人

佔比 **1.86**%

其中任職高級管理層 **10** 人

任職初、中級管理層 **193** 人

The Group implements a policy of priority recruiting veterans. In 2025, the Group had 384 veteran employees, accounting for 1.86% of the total, of which 10 held senior management positions and 193 held junior or middle management positions.

本集團積極為殘疾人提供就業條件及崗位，與殘疾人就業服務機構合作、開展招聘活動，持續推動包容性就業

2025 年本集團員工中有殘疾人 **130** 人

The Group actively provides employment conditions and positions for persons with disabilities, cooperates with disability employment service agencies, conducts recruitment activities, and continuously promotes inclusive employment. In 2025, the Group had 130 employees with disabilities.

2025 年本集團員工流失情況

Employee Turnover in the Group in 2025

指標 Indicators	單位 Unit	2025
員工總流失率 Total Employee Turnover Rate	%	19.53
女性員工流失率 Female Employee Turnover Rate	%	16.27
男性員工流失率 Male Employee Turnover Rate	%	20.61
30 歲及以下員工人數流失率 Turnover Rate for Employees Aged 30 and Below	%	26.28
31-40 歲員工人數流失率 Turnover Rate for Employees Aged 31-40	%	17.98
41-50 歲員工人數流失率 Turnover Rate for Employees Aged 41-50	%	14.38
51 歲及以上員工人數流失率 Turnover Rate for Employees Aged 51 and Above	%	13.80
兼職員工流失率 Turnover Rate for Part-time Employees	%	0.00
中國內地員工流失率 Turnover Rate for Employees in Mainland China	%	19.51
港澳臺地區員工流失率 Turnover Rate for Employees in Hong Kong, Macao, and Taiwan Regions	%	0.00
其他地區員工流失率 Turnover Rate for Employees in Other Regions	%	25.00

勞工權益保障 Labor Rights Protection

薪酬福利
Compensation and Welfare

天能持續優化薪酬福利體系和分配激勵體系，確保員工薪酬水平兼具內部公平性與外部競爭力，並充分發揮薪酬管理的激勵約束作用，通過差異化的薪酬激勵與福利保障政策，充分調動員工積極性，激發員工工作熱情，持續提升員工的獲得感與凝聚力。

本集團積極探索科學、合理、公平的薪酬管理辦法。遵從集團制定的包括《薪酬管理制度》《增量激勵管理制度》《社保與公積金管理制度》《福利管理制度》及《員工考勤管理制度》等制度在內的管理薪酬福利體系。並暢通績效考核反饋渠道，員工如對考核結果有異議，可通過 OA 向所在單位人力資源管理部門提出申訴。相關負責人在接到申訴後一周內須組織調查並督促有關組織或人員進行最終裁決，以保障員工基本權利。

Tianneng continuously optimizes its compensation, welfare, and distribution incentives to ensure employee compensations are both internally equitable and externally competitive. It fully leverages the incentives and restraints of compensation management. Through differentiated compensation incentives and welfare protection policies, it fully mobilizes employees' enthusiasm, and continuously enhances their sense of gain and cohesion.

The Group actively explores scientific, reasonable, and fair compensation management methods. It adheres to the management compensation and benefits system formulated by the Group, including systems such as the *Compensation Management System*, *Incremental Incentive Management System*, *Social Security and Housing Provident Fund Management System*, *Benefits Management System*, and *Employee Attendance Management System*. It also smoothens channels for performance appraisal feedback. If employees have objections to appraisal results, they can file an appeal with the human resources management department of their unit through the OA system. The responsible person must organize an investigation within one week of receiving the appeal and urge relevant organizations or individuals to make a final ruling, safeguarding employees' basic rights.

薪酬與福利類型
Compensation and Benefits Types

類型 Type	內容 Content
基礎薪酬 Basic Compensation	依據職位價值評估確定，涵蓋基本工資、崗位工資、加班工資、月度績效獎金和年終績效獎金，相關工資按照考核發放。 Determined based on position value evaluation, covering basic salary, post salary, overtime pay, monthly performance bonus, and year-end performance bonus. Relevant salaries are paid in accordance with assessment results.
增量激勵 Incremental Incentives	針對一年內超額完成本職或項目工作給予額外獎勵，包括但不限於專項獎、項目激勵、目標激勵、增量利潤分享及總裁特別獎勵等多種形式。 Additional rewards for exceeding one's own job responsibilities or project targets within one year, including but not limited to special awards, project incentives, target incentives, incremental profit sharing, and the President's Special Award.
長期激勵 Long-Term Incentives	通過三年或以上週期的激勵方式，將員工利益與企業利益緊密相連 Incentive mechanisms with a cycle of three years or above, closely linking employees' interests with corporate interests.
福利 Benefits	法定福利：社會保險、住房公積金和高溫補貼等 Statutory Benefits: Social insurance, housing provident fund, and high-temperature subsidy, etc. 其他福利：夥食補貼、住租房補貼、通訊補貼、節日禮金、生日禮金、體檢等 Other benefits: Meal allowances, housing rental allowances, communication allowances, holiday gifts, birthday gifts, physical examinations, etc.

民主管理
Democratic Management

職工代表大會 Workers' Representative Congress

天能將民主管理視為企業穩健前行的關鍵驅動力，將民主管理融入企業文化建設，搭建全面深入的員工民主管理體系與溝通渠道，使員工充分享有知情權、參與權、表達權和監督權，營造開放包容氛圍，保障員工民主權利。持續完善班組民主管理體系，堅持平等協商原則，鼓勵並支持員工通過民主選舉、決策、管理及監督參與管治，建立健全職工代表大會制度，定期召開職工代表大會，並成立勞動法律監督與勞動保護監督小組簽訂《集體合同》及相關專項協議，通過制度層面的強化，完善了民主管理機制。

Tianneng regards democratic management as a key driver of the company's steady progress, integrating democratic management into corporate culture construction, and building a comprehensive and in-depth employee democratic management system and communication channels. This enables employees to fully enjoy the rights to know, participate, express, and supervise, creating an open and inclusive atmosphere and safeguarding employees' democratic rights. It continuously improves the team-level democratic management system, adheres to the principle of equal consultation, encourages and supports employees to participate in governance through democratic elections, decision-making, management, and supervision, establishes and improves the employees' representative meeting system, regularly convenes employees' representative meeting, and establishes a labor law supervision and labor protection supervision group to sign *Collective Contracts* and related special agreements. Through institutional strengthening, it has perfected the democratic management mechanism.

民主溝通機制
Democratic Communication Mechanism

天能建立服務職工長效機制，持續打造有溫度、可信賴的「職工之家」。集團積極拓寬溝通反饋溝通渠道，建立「線上 + 線下」雙渠道溝通機制，通過意見箱、董事長信箱、定期訪談、季度座談會、不定期座談會等線下渠道及線上渠道——天能心聲小程序瞭解員工訴求，每季度整理「談心簡報」並限時辦結答復，構建「傾聽 - 回應 - 落實 - 反饋」閉環管理體系，為員工廣泛參與企業經營管理開闢了更加暢通的途徑。

Tianneng establishes a long-term mechanism for serving employees, continuously building a warm and trustworthy "Employee Home." The Group actively broadens communication and feedback channels, establishing a dual-channel communication mechanism combining "online+offline." It understands employee requirements through physical channels such as suggestion boxes, the Chairman's mailbox, regular interviews, quarterly forums, and irregular forums, and online channels – the "Tianneng Voice" mini-program. It compiles "heart-to-heart talk briefings" quarterly and handles and replies within a limited time, constructing a closed-loop management system of "listening-responding-implementing-feedback," opening up smoother pathways for employees to widely participate in business management.

天能心聲小程序
Tianneng Voice Mini-program

2025 年民主管理績效 2025 Democratic Management Performance

新建並優化「線上 + 線下」一體化反饋平臺 **3** 個

全年開展常態化談心談話超 **100** 人次

累計推動解決員工各類意見建議 **124** 人條

Three new "online+offline" integrated feedback platforms were built and optimized. Regular heart-to-heart talks exceeded 100 person-times throughout the year, cumulatively promoting the resolution of 124 employee suggestions and opinions.

員工培訓與發展 Employee Training and Development

天能致力於構建全面而系統的人才發展生態。本集團將人才作為發展的核心動力，緊緊圍繞產業轉型，聚焦組織升級，構建完善的員工職業發展與晉升機制，優化員工培訓體系，不斷提升員工的專業技能和綜合素質，為員工鋪設了清晰的職業成長道路，為本集團的可持續發展奠定了堅實的人才基礎。

Tianneng is committed to building a comprehensive and systematic talent development ecosystem. The Group regards talent as the core driving force for development, closely centering on industrial transformation, focusing on organizational upgrading, constructing a complete employee career development and promotion mechanism, optimizing employee training systems, continuously improving employees' professional skills and comprehensive quality, paving a clear career growth path for employees, and laying a solid talent foundation for the Group's sustainable development.

職業發展 Career Development

集團圍繞人才成長與發展構建系統化管理體系，面向管理幹部與專業員工建立管理、專業雙序列並行的職業發展通道。制定 / 修訂《員工晉升制度》《幹部管理制度》及《內部人才培養流動管理制度》等制度，明確員工晉升與輪崗標準，將培訓培養與人才發展拉通，構建「選、育、用、留」全鏈條人才發展閉環，完善幹部選育用留全週期管理機制，為員工職業發展提供清晰路徑與堅實保障。

The Group builds a systematic management system around talent growth and development, establishing dual career paths of management and professional sequences for management cadres and professional employees. It formulates/revises systems such as the *Employee Promotion System*, *Cadre Management System*, and *Internal Talent Development and Mobility Management System*, clarifying standards for employee promotion and job rotation, connecting training and development with talent development, constructing a closed-loop talent chain of "selection, cultivation, utilization, and retention," improving the full-cycle management mechanism for cadre selection, cultivation, utilization, and retention, providing a clear path and solid guarantee for employee career development.

人才培養 Talent Development

天能積極培育人才，採用「學以致用，以評促建」的策略，通過「管理 + 培養」雙軌保障體系，以《內部講師管理辦法》《培訓經費管理制度》《員工在職學歷繼續教育管理制度》等完善制度為支撐，系統提升員工管理素養和專業能力，並通過團隊建設評價優化全週期人才管理機制，拓展發展空間，增強內部成長動力。

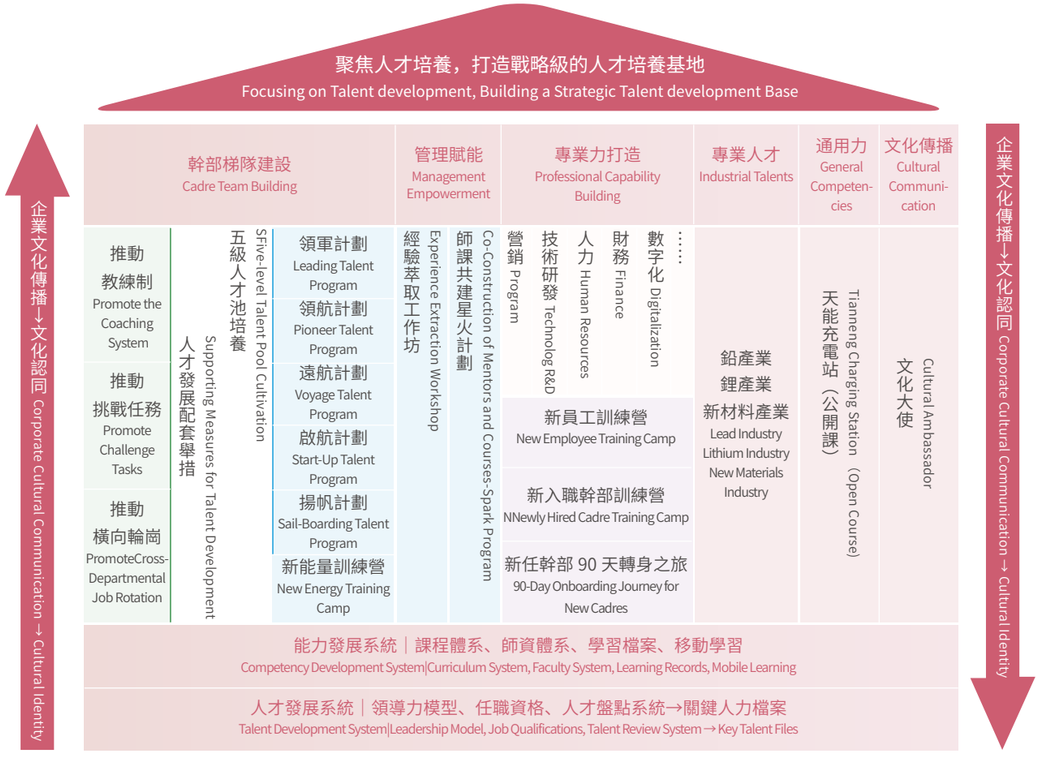
Tianneng actively cultivates talent, adopting the strategy of "applying learning, promoting construction through evaluation." Through a dual-track guarantee system of "management+cultivation," supported by sound systems such as the *Internal Lecturer Management Measures*, *Training Fund Management System*, and *Employee On-the-Job Continuing Education Management System*, it systematically enhances employees' management literacy and professional capabilities, and optimizes the full-cycle talent management mechanism through team building evaluation, expanding development space and enhancing internal growth momentum.

集團搭建「管培生－經理級幹部－總監級幹部－總經理級幹部－領軍人才」五級人才池，持續選拔高潛人才入池培養，加速人才內生。並通過定期幹部盤點，持續完善關鍵崗位繼任計劃，圍繞領導力提升、專業力提升、新員工入職賦能、內訓師梯隊建設、員工學歷提升、三級安全教育及特殊作業人員專項培訓等核心維度，構建起全方位、多層次、標準化的培訓管理機制。

The Group has built a five-level talent pool – "Management Trainee – Managerial Cadre – Director-level Cadre – General Manager-level Cadre – Leading Talent", continuously selecting high-potential talents for cultivation and accelerating internal talent growth. Through regular cadre inventory, it continuously improves succession plans for key positions. Centering on core dimensions such as leadership enhancement, professional capability improvement, new employee onboarding empowerment, internal trainer echelon construction, employee academic qualification upgrading, three-level safety education and special training for special operators, it constructs a comprehensive, multi-level, and standardized training management mechanism.

同時，集團構建學堂三級管理架構，各事業部配備專屬人力資源培訓團隊，結合業務特點精準開展差異化培訓；組建「內部講師梯隊 + 外部專家資源」的復合型師資隊伍，搭建釘釘線上開放學習平臺與線下實景實訓相結合的培訓載體，通過輪崗歷練、領導力培訓、導師帶教、標桿學習等場景化和沉浸式學習體驗，提升各類人才的管理素養和業務能力。最終形成「制度支撐、分層實施、多元賦能」的全面培養體系，提升人才梯隊健康度。

Meanwhile, the Group has established a three-level academy management structure. Each business unit is equipped with a dedicated HR training team to carry out differentiated training accurately based on business characteristics. It has formed a composite teaching team of "internal trainer echelon+external expert resources," and establishing training carriers combining DingTalk open online learning platform and offline practical training. Through scenario-based and immersive learning experiences such as job rotations, leadership training, mentor guidance, and benchmarking learning, it improves the management literacy and professional capabilities of various talents. Ultimately, it forms a comprehensive cultivation system featuring "institutional support, tiered implementation, and multi-dimensional empowerment," enhancing the health of the talent echelon.



天能培訓體系建設
Tianneng Training System Construction

內部講師與課程 Internal Trainers and Courses

講師隊伍：篩選講師潛質名單 20 人，產出合格課程 23 門；修訂《內部講師管理辦法》；舉辦教師節活動，評選 10 名「最受歡迎內訓師」；開展 75 人參訓的講師專項培訓，滿意度 97.8%。

Lecturer Team: Screened 20 candidates with lecturer potential, produced 23 qualified courses; revised the *Internal Lecturer Management Measures*; held Teacher's Day activities, selected 10"Most Popular Internal Trainers"; conducted special training for lecturers with 75 participants, satisfaction rate 97.8%.

課程開發：新增 5 門內訓課程，累計授課 9 場 26 課時，平均滿意度 98%。

Course Development: Added 5 new internal training courses, totally delivered 9 sessions totaling 26 class hours, average satisfaction rate 98%.

知識庫與學習平臺 Knowledge Base and Learning Platform

知識庫建設：建成學堂內部及培訓條線知識庫，輔導 10 家單位建成專屬知識庫，學習文件累計超 6,000 份。

Knowledge Base Construction: Established the academy's internal knowledge base and training line knowledge base, guided 10 units to build their exclusive knowledge bases, cumulative learning documents exceeded 6,000.

平臺運營：線上學習平臺登錄 16,196 人，創建 1,169 個培訓項目、新增 483 門線上課程；完成 3 項功能定制開發及 HRSSC 系統對接；發佈 46 個公告，新增 3 個產業學院門戶，並建成 AI 短課專區。

Platform Operation: Online learning platform logged in by 16,196 people, created 1,169 training projects, added 483 online courses; completed 3 functional customizations and integration with the HRSSC system; issued 46 announcements, added 3 new industrial college portals, and established an AI short course zone.

案例 Case 遠航計劃·總監人才發展項目
Voyage Plan · Director Talent Development Program

為持續推進人才池建設，支持現有中層隊伍能力升級，保證人才供應鏈的穩健打造，加速後備幹部培養與發展，天能於 2025 年啟動涵蓋 5 次集中培訓，10 天線下課程，9 大領導力核心專題的遠航計劃·總監人才發展項目（二期）。本集團立足總監層級人才的崗位定位與能力需求，針對入班學員採用外請內訓的培養模式，升級定制化培訓解決方案，聚焦團隊管理與領導力轉型突破兩大核心方向，推動參加員工實現從「認知思維轉變」到「行為實踐落地」的進階。並採用「線上系統學習 + 線下實戰演練 + 訓後在崗實踐」的模式，全方位保障培訓效果轉化。

To continuously promote the construction of the talent pool, support the capability upgrading of the existing middle-level team, ensure the steady building of the talent supply chain, and accelerate the cultivation and development of reserve cadres, Tianneng launched the Voyage Plan • Director Talent Development Program (Phase II) in 2025, encompassing 5 intensive training sessions, 10 days of offline courses, and 9 core leadership topics. Based on the position positioning and capability requirements of director-level talents, the Group adopts an externally invited internal training model for enrolled trainees, upgrading customized training solutions, focusing on two core directions: team management and leadership transformation breakthrough, promoting participating employees to advance from "cognitive thinking transformation" to "behavioral practice implementation." It adopts a model of "online systematic learning+offline practical drills+post-training on-the-job practice" to comprehensively ensure the transformation of training effects.

遠航計劃·總監人才發展項目培訓現場
Voyage Plan • Director Talent Development Program Training Site

案例 Case

校招員工訓練營
Campus Recruitment Employee Training Camp

2025 年，天能錨定校招大學生群體成長需求，構建「集訓 - 帶教 - 在崗培訓」全鏈條培養體系，通過「系統化入職集訓，築牢成長根基」「全週期導師帶教，保障培養質量」及「全流程返崗跟進，構建培養閉環」三大關鍵舉措，加速校招大學生從「校園人」到「職場人」的蛻變，為新員工的職業發展打下了堅實的基礎。

In 2025, Tianneng anchored the growth needs of campus recruitment college student groups, constructed a full-chain cultivation system of "intensive training-mentoring-on-the-job training." Through three key measures: "systematic induction intensive training, solidifying the growth foundation," "full-cycle mentor guidance, ensuring cultivation quality," and "full-process return-to-work follow-up, constructing a closed-loop cultivation system," it accelerates the transformation of campus recruitment college students from "campus people" to "workplace people," laying a solid foundation for the career development of new employees.

校招員工訓練營培訓現場
Campus Recruitment Employee Training Camp Training Site

案例 Case

創新創效大賽
Innovation and Efficiency Competition

2025 年，集團舉辦創新創效大賽，聯動 37 家單位開展 58 場技能比武，徵集 39 個創新項目，樹立 75 位先進典型，營造了濃厚的「比、學、趕、幫、超」氛圍，並成功入選「2025 人民企業社會責任案例」。

In 2025, the Group held an innovation and efficiency competition, mobilizing 37 units to conduct 58 skill competitions, soliciting 39 innovation projects, selecting 75 advanced models, creating a strong atmosphere of "striving, learning, catching up, assisting and exceeding," and was successfully selected as a "2025 People's Corporate Social Responsibility Case."

2025 年天能員工培訓績效
2025 Tianneng Employee Training Performance

指標 Indicators	單位 Unit	2025
員工培訓總投入 Total Employee Training Investment	人民幣萬元 RMB 10,000	394.50
員工培訓總時長 Total Employee Training Hours	小時 Hours	525,873.98
人均培訓時長 Average Training Hours for Employee	小時 Hours	25.42
人均培訓時長（線上） Average Online Training Hours per Employee	小時 Hours	12.38
男性員工人均培訓時長（線上） Average Online Training Hours for Male Employee	小時 Hours	11.44
女性員工人均培訓時長（線上） Average Online Training Hours for Female Employee	小時 Hours	15.16
基層員工人均培訓時長（線上） Average Online Training Hours for Grassroots Employee	小時 Hours	10.42
中層員工人均培訓時長（線上） Average Online Training Hours for Middle-Level Employee	小時 Hours	26.85
高級管理層員工人均培訓時長（線上） Average Online Training Hours for Senior Management Employee	小時 Hours	13.11

員工關懷與活動 Employee Care and Activities

天能將員工關懷置於企業發展的重要位置，天能致力於打造充滿活力和幸福感的企業。本集團依據《天能幸福共同體行動綱領》對員工加強全方位的關心關愛，並通過開展員工幸福度調研，深入瞭解員工需求，不斷提高員工的歸屬感和幸福感。

Tianneng places employee care in an important position in enterprise development, striving to build a vibrant and happy enterprise. The Group strengthens comprehensive care and concern for employees in accordance with the *Tianneng Happiness Community Action Program*, and through conducting employee happiness surveys, deeply understands employee needs, continuously improving employees' sense of belonging and happiness.

本集團通過困難員工幫扶及豐富多彩的文體活動持續貼近員工精神需求，重點關注員工的實際困難，精準實施關愛幫扶，堅持用心用情用力解決員工的煩心事、困難事，持續做好春送崗位、夏送清涼、金秋助學、冬送溫暖的「四季送」及節日慰問、醫療互助等工作，深化女職工關愛，維護女職工特殊權益，切實增強全體員工的歸屬感和幸福感，持續提升企業凝聚力。

The Group continuously meets employees' spiritual needs through assistance for employees in difficulty and rich cultural and sports activities. It places significant emphasis on the practical challenges encountered by employees, implementing targeted care and support initiatives. The Company is committed to diligently resolving employees' concerns and difficulties with genuine care and effort. It continuously carries out the "Four Seasons Delivery" program—providing job opportunities in spring, cooling supplies in summer, education assistance in autumn, and warm supplies in winter—as well as holiday condolences and mutual aid. Furthermore, it deepens care for female employees and safeguards their special rights and interests, effectively enhancing the sense of belonging and well-being of all employees and continuously improving corporate cohesion.

2025 年，集團開展「三八婦女節」「五四青年節」「七一建黨節」等 6 場大型主題活動及 16 項特色關愛活動；創新舉辦中秋聯歡、年終文藝匯演，發掘文藝人才，原創 8 個文化節目，在豐富員工精神生活的同時，極大增強了員工的歸屬感，提高了工作熱情與效率。

In 2025, the Group conducted 6 large-scale themed activities including Women's Day (March 8), Youth Day (May 4), and CPC Founding Day (July 1), and 16 special care activities; innovatively held a Mid-Autumn Festival party and a year-end cultural performance, discovering cultural talents and creating 8 original cultural programs, enriching employees' spiritual lives while greatly enhancing their sense of belonging, work enthusiasm, and efficiency.

天能每年春節為困難員工家庭送去溫暖。

Every Spring Festival, Tianneng Group delivers warmth and care to the families of employees in need.

案例 Case

三八婦女節座談會
March 8 Women's Day Symposium

2025 年 3 月，本集團開展三八婦女節座談會，致敬每一位女性員工，弘揚平等、尊重、關愛的企業文化，進一步推動了集團內部性別平等與多元文化的建設，為營造和諧、包容的工作環境奠定了堅實基礎。

In March 2025, the Group held a Women's Day symposium to honor every female employee, promoting the corporate cultural of equality, respect, and care. This further advanced the construction of gender equality and multiculturalism within the Group, laying a solid foundation for creating a harmonious and inclusive work environment.

三八婦女節座談會現場
March 8 Women's Day Symposium Site

案例 Case

中秋晚會——攜手同行，共創未來
Mid-Autumn Festival Party – Walking Hand in Hand, Creating the Future Together

2025 年 9 月 29 日，本集團舉辦中秋晚會。參會員工共同賞月、敘團圓情，展望美好未來，進一步增強了團隊凝聚力。未來，天能人將繼續攜手同行，共創美好未來。

On September 29, 2025, the Group held a Mid-Autumn Festival celebration. Attending employees gathered to admire the moon, share moments of reunion, and envision a bright future, further strengthening team cohesion. Moving forward, Tianneng people will continue to work hand in hand to create a better future together.

天能中秋晚會現場
Tianneng Mid-Autumn Festival Party Site

職業健康與安全 Occupational Health and Safety

天能始終堅持「生命至上，安全第一」的工作原則，持續完善職業健康與安全管理體系建設，推動全生命週期職業健康與安全管理，將安全問題抓到深處、抓到實處，培育長效務實的職業健康安全文化，為本集團的高質量發展創造更加安全、有序、穩定的環境。

Tianneng always adheres to the working principle of "life first, safety first," continuously improving the construction of the occupational health and safety management system, promoting full life-cycle occupational health and safety management. It addresses safety issues thoroughly and practically, fosters a long-term and pragmatic occupational health and safety culture, and creates a safer, more orderly, and stable environment for the Group's high-quality development.

職業健康與安全管理體系
Occupational Health and Safety Management System

集團嚴格遵從《中華人民共和國安全生產法》《中央企業安全生產監督管理暫行辦法》《中華人民共和國職業病防治法》及《安全生產許可證條例》等法律法規，制定了《員工職業健康管理制度》《危險作業安全管理制度》《環安隱患排查治理管理制度》《環安應急管理制度》及《環安管理一票否決制度》等制度，構建了涵蓋制度化管理、教育培訓、現場管理、風險管控、應急管理、持續改進的「基礎管理 - 專項管理 - 協同管理 - 督查考核」四位一體職業健康與安全管理體系，並獲得了 ISO 45001 職業健康安全管理體系認證。

The Group strictly complies with laws and regulations such as the *Law of the People's Republic of China on Work Safety*, the *Interim Measures for the Supervision and Administration of Work Safety of Central Enterprises*, the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*, and the *Regulations on Production Safety Licenses*. It has formulated systems including the *Employee Occupational Health Management System*, *Management System for Hazardous Operations Safety*, *EHS Hazard Identification and Control Management System*, *EHS Emergency Management System*, and *EHS Management One-Vote Veto System*. It has built a four-in-one occupational health and safety management system of "basic management-special management-collaborative management-supervision and assessment," covering institutionalized management, education and training, on-site management, risk control, emergency management, and continuous improvement. It has obtained ISO 45001 Occupational Health and Safety Management System certification.

部分子公司職業健康安全管理體系認證證書
Certain subsidiaries Occupational Health and Safety Management System Certificates

職業健康與安全管理架構
Occupational Health and Safety Management Structure

為保障健康安全管理制度落實，各項措施有序推進，天能建立了完善的職業健康與安全管理架構。

To ensure the implementation of health and safety management systems and the orderly progress of various measures, Tianneng has established a comprehensive occupational health and safety management structure.

環安生產委員會：負責制定集團環安策略規劃、方針政策和發展目標。

Environment, health and safety Production Committee: Responsible for formulating the Group's environment, health and safety strategic plans, policies, and development goals.

環保安防管理中心：負責明確環安策略目標，承接集團策略規劃並進行環安策略、方針及目標的分解。

Environmental Protection and Safety Management Center: Responsible for clarifying environment, health and safety strategic objectives, undertaking the Group's strategic plans, and decomposing environment, health and safety strategies, policies, and goals.

各事業部：參與制定並承接總部環安策略、方針及目標，並負責各自環安策略、方針及目標的制定、分解。

Various Business Divisions: Participate in formulating and undertaking the headquarters' environment, health and safety strategies, policies, and goals, and are responsible for formulating and decomposing their own environment, health and safety strategies, policies, and goals.

各子公司：參與制定並承接上級單位環安策略、方針及目標，並負責各自環安策略、方針及目標的制定、落實。

Each Subsidiaries and Branches: Participate in formulating and undertaking higher-level units' environment, health and safety strategies, policies, and goals, and are responsible for formulating and implementing their own environment, health and safety strategies, policies, and goals.

同時，集團各級簽訂責任書，下屬各事業部及相關職能部門簽署《環保安防目標責任書》，新員工簽署《新員工安全生產責任書》，子公司簽署《安全生產責任書》，環環相扣，嚴格規定績效與獎懲制度，全面落實安全生產責任制。

Simultaneously, responsibility agreements are signed at all levels of the Group. Subordinate business divisions and relevant functional departments sign *Environmental Protection and Safety Target Responsibility Agreements*, new employees sign *New Employee Work Safety Responsibility Agreements*, and subsidiaries sign *Work Safety Responsibility Agreements*, interlocking, strictly stipulating performance and reward/punishment systems, and comprehensively implementing the work safety responsibility system.

職業健康與安全策略
Occupational Health and Safety Strategy

2025 年，集團制定《環安戰略規劃》，以深化體系建設，提升管理效能；構建標準體系，統一全域全鏈條；加快數字化轉型，融合人防技防為基石；以精準風險管控，築牢安全屏障；強化應急能力，優化危機響應；全面融入海外，全鏈支撐國際；變革組織能力，打造專業團隊為支柱，全面部署職業健康與安全能力建設。

In 2025, the Group formulated the *Environment, Health and Safety Strategic Plan*, comprehensively deploying occupational health and safety capacity building based on: deepening system construction to improve management effectiveness; building a standard system to unify the overall situation and entire chain; accelerating digital transformation, integrating human and technological prevention as the foundation; precise risk control to build a solid safety barrier; strengthening emergency capabilities, optimizing crisis response; fully integrating into overseas operations, supporting the entire chain for international expansion; transforming organizational capabilities, building professional teams as pillars.

三大基石
Three Cornerstones

深化體系建設，提升管理效能：動態完善制度體系，定期更新《環安管理制度體系》；建立統籌協調機制：建立環安工作例會機制，統籌協調環安事務；強化海外合規支撐，為新區域或海外項目提供環安風險管理指導；建立海外項目環安前置介入機制，從源頭規避合規風險。同時，明確環安崗位責任邊界，強化責任意識培訓；完善考核聯動機制，嚴格責任追溯追責。

Deepening System Construction, Improving Management Effectiveness: Dynamically improve the institutional framework, regularly update the *Environment, Health and Safety Management System Framework*; establish an overall coordination mechanism: establish an environment, health and safety work regular meeting mechanism to coordinate environment, health and safety affairs; strengthen overseas compliance support, provide environment, health and safety risk management guidance for new regions or overseas projects; establish an environment, health and safety pre-intervention mechanism for overseas projects to avoid compliance risks at the source. Simultaneously, clarify the responsibility boundaries of environment, health and safety positions, strengthen responsibility awareness training; improve the assessment linkage mechanism, strictly enforce responsibility tracing and accountability.

構建標準體系，統一全域全鏈條：打造適配國際化業務、覆蓋全業務鏈條的環安標準體系，實現從分散管理向統一規範、從靜態合規向動態優化的升級，為環安管理提供剛性依據與行動指南。

Building a Standard System, Unifying the Overall Situation and Entire Chain: Build an environment, health and safety standard system adapted for international business and covering the entire business chain, achieving an upgrade from decentralized management to unified norms, from static compliance to dynamic optimization, providing rigid basis and action guidelines for environment, health and safety management.

加快數字轉型，融合人防技防：深化智能技防部署，升級環安信息化管理平臺，強化環安大數據賦能，讓環安管理從被動響應向主動預判、人機協同升級，實現人防經驗與技防效能的深度融合。

Accelerate Digital Transformation, Integrate Manpower and Technical Prevention: Deepen the deployment of intelligent technical prevention, upgrade the EHS information management platform, strengthen EHS big data empowerment, enabling EHS management to upgrade from passive coping with active prediction and human-machine collaboration, achieving deep integration of manpower experience and technical prevention effectiveness.

四大支柱
Four Pillars

精準風險管控，築牢安全屏障：全面系統開展風險分級管控，推動風險管控從經驗驅動向數據驅動、從全面覆蓋向精準聚焦升級，為集團發展築牢安全屏障。

Precise Risk Control, Building a Solid Safety Barrier: Comprehensively and systematically carry out risk classification control, promoting the upgrade of risk control from experience-driven to data-driven, from comprehensive coverage to precise focus, building a solid safety barrier for the Group's development.

強化應急能力，優化危機響應：優化應急預案、強化應急保障、加強危機管理，構建全週期應急管理體系。

Strengthen Emergency Response Capabilities, Optimize Crisis Response: Optimize emergency plans, strengthen emergency support, enhance crisis management, and build a full-cycle emergency management system.

全面融入海外，全鏈支撐國際：以「參與國際化佈局 - 提升防控能力 - 築牢安環防線 - 賦能海外業務」全鏈支撐國際化。

Fully Integrate into Overseas Operations, Support Internationalization Throughout the Chain: Support internationalization throughout the entire chain by "expanding our international footprint-enhancing prevention and control capabilities-building a safety and environmental defense line-empowering overseas businesses."

變革組織能力，打造專業團隊：構建適配集團策略的能碳與環安管理組織與人才體系，支撐管理從監管型向價值創造型跨越。

Transforming Organizational Capabilities, Building Professional Teams: Construct an energy, carbon, environment, health and safety management organization and talent system adapted for the Group's strategy, supporting the leap of management from a supervisory type to a value creation type.

職業健康安全風險管治
Occupational Health and Safety Risk Governance

集團不斷加強安全風險管理，對可能出現的各類健康安全風險進行全面排查與評估，制定了《環安風險識別評價控制管理制度》，構建了全面的安全風險分級管控機制。

The Group continuously strengthens safety risk management, conducting comprehensive investigation and assessment of various potential health and safety risks. It has formulated the *EHS Risk Identification, Evaluation, and Control Management System* and established a comprehensive safety risk classification management and control mechanism.

集團使用固有風險評價 LEC 法，識別健康安全風險，並明確風險狀態、後果、類型及應對措施，對風險進行分級管理。各事業部、車間及工序都定期評估並持續更新風險區大門，有效降低了職業健康安全風險。

The Group uses the inherent risk evaluationLEC method to identify health and safety risks, and clarifies risk status, consequences, types, and response measures, implementing hierarchical management of risks. Each business division, workshop, and process regularly assesses and continuously updates risk area signs, effectively reducing occupational health and safety risks.

2025 年，本集團主動靠前服務，精準管控各類項目環安風險。前置風險防控關口，為集團重大項目提供環安評估賦能。強化技術賦能支撐，立足外部事故案例舉一反三，排查光伏等關鍵設備隱患；助力鉛蓄電池基地順利通過行業規範條件審查；統籌推進 88 項環安技改項目建設，有效提升集團本質安全水平。

In 2025, the Group proactively provided forward-looking services and precisely controlled environment, health and safety risks for various projects. It positioned risk prevention and control at the forefront, providing environment, health and safety assessment empowerment for major projects of the Group. It strengthened technical empowerment support, drawing inferences from external accident cases to investigate and eliminate hazards in key equipment such as photovoltaics; assisted lead-acid battery bases in successfully passing the industry standard condition reviews; coordinated the promotion of the construction of 88 environment, health and safety technological transformation projects, effectively enhancing the Group's intrinsic safety level.

工序風險識別
Process Risk Identification

應急管治
Emergency Governance

本集團聚焦環安風險，強化隱患排查，規範事故應急管理工作，提高應對突發事件的能力，不斷完善應急管理制度建設，制定《環安應急管理制度》，持續推進應急處置能力提升。

The Group focuses on EHS risks, strengthens hazard investigation, standardizes accident emergency management, improves the ability to respond to emergencies, continuously improves the construction of emergency management systems, formulates the *Environment, Health and Safety Emergency Management System*, and continuously promotes the enhancement of emergency response capabilities.

各事業部及子公司結合自身情況，建立相應的應急管理制度。2025 年，天能集團（河南）能源科技有限公司制定《生產安全事故應急預案》，並於濮陽工業園區備案。

Each business divisions and subsidiaries, under Tianneng's guidance and based on their own circumstances, have established corresponding emergency management systems. In 2025, Tianneng Group (Henan) Energy Technology Co., Ltd. formulated the *Production Safety Accident Emergency Plan* and filed it with the Puyang Industrial Park.

報告期內，各直屬單位與子公司立足自身實際，開展應急培訓與演練，提升員工應急反應與自救互救能力。同時，邀請外部專家舉辦專題講座，提升員工對安全風險的認知與防範意識。本集團圍繞產業風險防控重點，創新採用無腳本、無通知的「雙盲演練」模式，開展了 466 場次覆蓋火災、危化品洩漏、觸電、中暑、有限空間等多場景及所有高風險崗位的應急演練，參演員工達 20,038 人次。演練後嚴格評估總結，針對性修訂預案 238 項，通過「演練—評估—優化」閉環機制，實現應急能力與預案實操性雙重提升。

During the reporting period, each directly affiliated units and subsidiaries, based on their actual situations, carried out emergency training and drills to enhance employees' emergency response and self-rescue and mutual rescue capabilities. Simultaneously, external experts were invited to give special lectures to enhance employees' awareness and prevention of safety risks. Focusing on the key points of industrial risk prevention and control, the Group innovatively adopted a "double-blind drill" model without scripts or notices, conducting 466 emergency drills covering multiple scenarios such as fires, hazardous chemical leaks, electric shocks, heatstroke, confined spaces, and all high-risk positions, with 20,038 employee participants. After the drills, strict evaluations and summaries were conducted, and 238 plans were revised accordingly. Through the closed-loop mechanism of "drill-evaluation-optimization," a dual improvement in emergency response capabilities and plan practicality was achieved.

安全生產措施
Production Safety Measures

本集團堅決貫徹「全覆蓋、零容忍、重實效」的指導方針，制定安全生產目標，並督促各單位高質量完成。

The Group resolutely implements the guiding principle of "full coverage, zero tolerance, emphasis on practical results," sets production safety goals, and urges all units to complete them with high quality.

安全生產目標 Production Safety Goals	完成情況 Completion Status
工傷事故率低於 0.35% Work-related injury rate below 0.35%	完成 Completed
工傷事故人數低於 70 人 Number of work-related injuries below 70 people	完成 Completed

環安中心每月赴各地開展現場督查，同時針對鉛蓄、鋰離子電池生產和回收的關鍵環節，定期、不定期開展安全檢查。報告期內，集團高層親自掛帥，深入一線，對設備、電氣、消防、危化品管理、職業健康、作業環境及勞保防護等關鍵環節實施了全方位、無死角的安全隱患排查行動。

The Environment, Health and Safety Center conducts on-site supervision at various locations monthly, while also carrying out regular and irregular safety inspections targeting key links in the production and recycling of lead-acid and lithium-ion batteries. During the reporting period, senior Group leaders personally took charge, going deep into the frontline, implementing a comprehensive, no-blind-spot safety hazard investigation campaign covering key links such as equipment, electricity, fire protection, hazardous chemical management, occupational health, working environment, and labor protection.

報告期內本集團開具督辦單	共查處問題項	同時組織隱患排查	查出安全隱患	到期整改完成率
48 份	1,190 項	526 輪次	1,179 項	100%

During the reporting period, the Group issued 48 supervision notices, investigated and dealt with a total of 1,190 problem items, and organized 526 rounds of hazard investigations, identifying 11,795 safety hazards, with a 100% completion rate for rectification within the deadline.

2025 年天能安全數據

2025 Tianneng Safety Data

指標 Indicators	單位 Unit	2025
工傷率 Work-Related Injury Rate	%	0.30
百萬工時傷害率 Disabling Injury Frequency Rate per million hours worked	%	1.21
因工傷損失工作日數 Workdays Lost Due to Work-Related Injuries	日 Days	8,100
發生安全事故數量 Number of safety accidents	例 Cases	58
員工工傷保險覆蓋率 Employee Work Injury Insurance Coverage Rate	%	100

指標 Indicators	單位 Unit	2025	2024	2023
因公亡故數量 Number of Work-Related Deaths	人 People	0	0	0
因工亡故員工比例 Ratio of Employees Who Died at Work	%	0	0	0

鉛蓄產品事業部安全檢查

Lead-Acid Product Division Safety Inspection

貴州臺江公司安全檢查

Guizhou Taijiang Company Safety Inspection

案例 Case

數智化賦能安全管理

Digital Intelligence Empowering Safety Management

本集團突破傳統模式，以數字化、智能化賦能管理。堅持搭建智能技防體系，鉛蓄電池事業部智能巡檢機器人全面部署，累計預警 563 次，集團鉛蓄電池一基地試點火災智能監測 + 人員行為 AI 監控，構建「技防預警、人防處置」的協同防控機制。

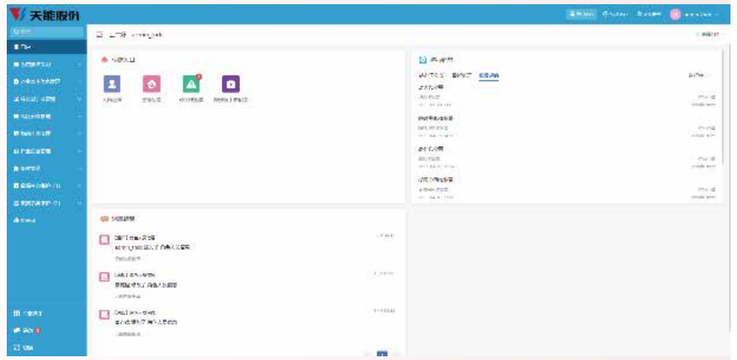
The Group broke through traditional models, empowering management with digitalization and intelligence. It persisted in building an intelligent technological prevention system. The Lead-Acid Products Division fully deployed intelligent inspection robots, issuing a total of 563 warnings. The Group piloted intelligent fire monitoring + AI personnel behavior monitoring at a lead-acid battery base, constructing a collaborative prevention and control mechanism of "technological prevention warning, human prevention disposal."

同時，推進環安信息化平臺，實現環安證照許可、風險分級管控、隱患排查、作業安全、事故管理五大核心業務線上化管理。並系統梳理環安核心數據，為後續信息化平臺升級奠定基礎，推動管理模式從「經驗驅動」向「數據驅動」的質變。

Simultaneously, it promoted the environment, health and safety information platform, achieving online management of five core businesses: environment, health and safety licenses and permits, risk hierarchical control, hazard investigation, operational safety, and accident management. It systematically sorted out core environment, health and safety data, laying the foundation for subsequent upgrades of the information platform and promoting the qualitative change of the management model from "experience-driven" to "data-driven."

智能巡檢機器人

Intelligent Inspection Robot



環安信息化平臺

EHS Information Platform

職業健康保障

Occupational Health Guarantee

天能全面落實《中華人民共和國職業病防治法》及《職業病危害項目申報管理辦法》等職業健康與安全要求，密切關注員工的身心健康。

Tianneng fully implements occupational health and safety requirements such as the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases* and the *Measures for the Administration of Declarations of Occupational Disease Hazard Projects*, paying close attention to employees' physical and mental health.

職業健康目標 Occupational Health Goals	完成情況 Completion Status
職業病確診人數為 0 Zero confirmed cases of occupational disease	完成 Completed
職業健康監護規範率 100% 100% standardized rate for occupational health monitoring	完成 Completed

職業健康保障措施：
Occupational Health Guarantee Measures:

下屬子公司均與地方醫療機構建立醫務室合作機制，配置相關簡易處置藥品、防暑應急藥品，並針對性配置 AED 急救設施。

Subsidiaries have established cooperation mechanisms with local medical institutions to set up clinics, equipped with basic treatment medicine, heatstroke emergency medicines, and AED first-aid facilities as needed.

設計專項宣傳培訓內容，提升員工對心理健康的認識，同時開展多項員工身體健康、作業環境健康的排查檢查等活動共 110 項，形成活動子方案、活動總結各 25 份。

Special publicity and training contents are designed to enhance employees' awareness of mental health. Meanwhile, carry out 110 activities including multiple inspections and checks related to employee physical health and working environment health, resulting in 25 activity sub-plans and 25 activity summaries each.

健康安全文化培育
Cultivation of Health and Safety Culture

集團高度重視員工職業健康與安全文化培養，制定了《環安教育培訓管理制度》，對培訓需求分析與計劃、培訓項目和內容設計、培訓方式及實施等環節進行規定，持續完善環安生產培訓體系。

The Group attaches great importance to the cultivation of employee occupational health and safety culture, formulating the *Environment, Health and Safety Education and Training Management System*, which stipulates links such as training needs analysis and planning, training project and content design, training methods and implementation, continuously improving the environment, health and safety production training system.

天能緊密貼合實際，為員工提供崗前、崗中職業健康、安全生產培訓，同時在特別節日、專題活動邀請地方醫療機構、主管部門、消防部門提供健康義診、專業知識培訓等健康安全培訓教育活動。

Closely combining the actual situation, Tianneng provides pre-employment and on-the-job occupational health and work safety training for employees. Simultaneously, on special holidays and for special activities, it invites local medical institutions, competent authorities, and fire departments to provide health consultations, professional knowledge training, and other health and safety training and education activities.

集團邀請外部安全生產領域的權威專家，舉辦了 24 場專題講座，培訓員工 1,978 人次，傳授前沿的安全管理理念與實操技巧；還充分挖掘內部資源，選拔優秀內訓師，組織了 2,354 場次的內部安全培訓，培訓超過 107,123 人次，形成了「人人講安全、個個會應急」的良好風尚。

The Group invited authoritative external experts in the field of work safety to hold 24 special lectures, training 1,978 employees, imparting cutting-edge safety management concepts and practical skills; it also fully tapped internal resources, selected excellent internal trainers, organized 2,354 internal safety training sessions, training over 107,123 person-time, forming a healthy trend of "everyone talks about safety, everyone knows how to respond."

集團部分單位還依託天能學堂在線教育平臺，打破時空限制，線上線下融合開展安全知識與技能培訓，使學習更加靈活便捷，有效促進了全員安全教育的普及與深化，進一步鞏固了員工的安全知識基礎，顯著提升了安全風險意識與防範技能，極大地增強了員工的風險辨識與隱患排查能力，為安全生產築起了堅實的防線。

Some units of the Group also relied on the Tianneng Academy online education platform, breaking the constraints of time and space, integrating online and offline safety knowledge and skills training, making learning more flexible and convenient, effectively promoting the popularization and deepening of all-staff safety education, further consolidating employees' safety knowledge base, significantly enhancing safety risk awareness and prevention skills, greatly strengthening employees' risk identification and hazard investigation capabilities, and building a solid defense line for work safety.

2025 年安全培訓績效
2025 Safety Training Performance

指標 Indicators	單位 Unit	2025
安全培訓次數 Number of Safety Training Sessions	次 Times	5,700
安全培訓時長 Safety Training Hours	小時 Hours	429,070
人均安全培訓時長 Average Safety Training Hours per Employee	小時 Hours	21.50
覆蓋員工 Employees Covered	人次 Person-times	117,800

案例 Case
「安全生產月」活動
"Work Safety Month" Activity

2025 年，集團聚焦「人人講安全、個個會應急」行動持續加力，堅持統籌發展和安全，樹牢全員安全紅線意識和底線思維，全國「安全生產月」活動。利用安全月與消防月契機，組織知識競賽、應急演練等活動，營造濃厚的安全文化氛圍。同時，加強消防安全知識普及，提升火災防控能力。

In 2025, the Group continued to intensify its efforts focused on the "everyone talks about safety, everyone knows how to respond" initiative, adhering to overall planning for development and safety, firmly establishing all-staff safety red-line awareness and bottom-line thinking through national "Work Safety Month" activities. Leveraging the opportunity of Safety Month and Fire Prevention Month, it organized activities such as knowledge competitions and emergency drills, creating a strong safety culture atmosphere. Simultaneously, it strengthened the popularization of fire safety knowledge to enhance fire prevention and control capabilities.

領導講「安全課」
Leaders Teaching "Safety Lessons

環保安全職業健康專項培訓
Specialized Environmental, Health, and Safety (EHS) Training

打造責任鏈條 Establishing a Responsibility Chain

天能高度重視產業鏈全生命週期責任，將供應鏈管理與產品質量與服務納入本集團可持續發展重點工作中，建立公開透明的採購環境，持續優化供應商管理制度流程，與供應商建立互惠共贏的合作關係；同時，嚴控產品質量，提供優質服務，助力實現產業鏈整體的高質量可持續發展。

Tianneng attaches great importance to the full lifecycle responsibility of the industrial chain, incorporating supply chain management and product quality and service into the Group's key sustainable development work. It establishes an open and transparent procurement environment, continuously optimizes supplier management systems and processes, and builds mutually beneficial and win-win cooperative relationships with suppliers. Simultaneously, it strictly controls product quality, provides excellent services, and contributes to achieving high-quality sustainable development of the entire industrial chain.

可持續供應鏈 Sustainable Supply Chain

天能始終將供應鏈管理視為企業可持續發展的重要組成，為防範採購風險，保障採購質量，確保供應鏈體系的安全性與穩定性，本集團堅持「公平、公正、誠信原則」「廉潔自律原則」及「監督原則」構建了科學完善的採購流程與供應商管理體系。通過嚴控準入資質審查、實施動態績效考核等方式，從源頭把控合作質量；同時優化採購策略，強化成本管控、質量監管及合規性審查，並搭建風險管理機制，實現供應鏈全鏈條閉環管理。本集團將持續深化供應鏈韌性建設，通過技術賦能與多元協同，推動上下遊高效聯動，為產品交付與客戶服務提供堅實保障。

Tianneng always regards supply chain management as an important component of corporate sustainable development. To prevent procurement risks, ensure procurement quality, and guarantee the safety and stability of the supply chain system, the Group adheres to the principles of "fairness, justice, integrity," "self-discipline and integrity," and "supervision," establishing a scientifically sound procurement process and supplier management system. By strictly controlling access qualification review and implementing dynamic performance assessment, it controls cooperation quality from the source; simultaneously optimizes procurement strategies, strengthens cost control, quality supervision, and compliance review, and establishes a risk management mechanism to achieve closed-loop management of the entire supply chain. The Group will continue to deepen supply chain resilience building, promoting efficient upstream and downstream linkage through technological empowerment and diversified collaboration, providing solid guarantees for product delivery and customer service.

供應商管理 Supplier Management

本集團持續加強供應商管理，遵從集團制定的《採購管理制度》《供應商開發與管理控制程序》《供應商分類管理標準》《供應商審核管理制度》《供應商績效管理制度》及《供應商退出與淘汰制度》等制度文件，將供應商按採購對象、採購方式、授權類型、重要程度、風險與績效等方式系統化分類管理，並從供應商準入、審核、培訓、退出等環節全面優化供應商管理，強化供應商質量管理意識和能力，打造可持續供應鏈。

The Group continuously strengthens supplier management, adhering to the Group's formulated system documents such as the *Procurement Management System, Supplier Development and Management Control Procedures, Supplier Classification Management Standards, Supplier Audit Management System, Supplier Performance Management System*, and *Supplier Exit and Elimination System*. It systematically classifies and manages suppliers based on procurement objects, procurement methods, authorization types, importance, risk, and performance, and comprehensively optimizes supplier management from links such as supplier access, audit, training, and exit, strengthening suppliers' quality management awareness and capabilities, and building a sustainable supply chain.

供應商組織架構及管理流程

Supplier Organizational Structure and Management Process

供應商尋源 Supplier Sourcing

- 需求部門對採購項目進行立項後，將採購需求提報至採購部門；

After the requesting department initiates a project for the procurement item, it submits the procurement requirements to the procurement department.

- 採購部門在確認現有供應商無法滿足採購需求的情況下，通過各種途徑開發相應的供應商資源；

When existing suppliers are unable to meet the procurement needs, the procurement department develops new supplier resources through various channels.

- 向新供應商發出《供應商調查表》，要求供應商嚴格按照表單要求客觀、準確的填寫相應的資料，提供相應的資質證明文件。

The Company issues a *Supplier Questionnaire* to new suppliers, who are required to complete the form objectively and accurately and provide relevant qualification documents.

供應商篩選 Supplier Screening

- 根據供應商提交的《供應商調查表》對供應商進行相關風險排查，填寫《新供應商合作風險評估表》，初步篩選合格後，發起《新供應商審核審批流程》，上傳供應商全部資料及風險評估表，提報到供應商管理人員；

The Company conducts risk assessments based on the submitted *Supplier Questionnaire* and completes a *New Supplier Risk Assessment Form*. After initial qualification, the Company initiates the *New Supplier Review and Approval Process*, uploads all supplier information and assessment forms, and submits them to the supplier management personnel.

- 供應商管理人員根據供應商調查表信息，通過網絡、天眼查平臺等途徑，對供應商進行初步資質及風險排查，並明確評審方式。

The supplier management personnel conduct preliminary qualification and risk screening based on the information from the "Supplier Questionnaire" and through the internet channels, Tianyancha, and other platforms, and determines the review method.

樣件（樣品）認證 Sample Certification

- 供應商按照要求提供指定數量的樣件（樣品），並附帶自檢報告單，如需第三方檢測報告，則必須提供具有相應檢測資質的第三方機構出具的檢測報告；

Suppliers provide a specified quantity of samples with self-inspection reports. If third-party testing is required, test reports from qualified testing institutions must be provided.

- 採購人員收到樣件（樣品）後，填寫《檢測委託單》送研究院測試中心進行檢測，獲取書面《檢測報告》；

After receiving the samples, the procurement personnel fill in the *Testing Entrustment Form* and submits them to the Research Institute Testing Center for testing, obtaining a written *Test Report*.

- 如供應商提供的樣品不合格，重新送樣檢測，連續 3 次檢測均不合格，一年內取消送樣資格，重新進行尋源。

If the samples provided by the supplier are unqualified, retesting is required. Three consecutive failures result in suspension of sample submission rights for one year, and the Company will re-source new suppliers.

供應商評審 Supplier Review

- 制定《供應商評審計劃》，組成審核團隊，審核團隊按計劃進行供應商評審；

The Company formulates a *Supplier Review Plan*, and assembles an audit team to conduct supplier reviews in accordance with the plan.

- 針對不同類別供應商，組織現場 / 線上評審。

For different types of suppliers, on-site or online reviews are conducted.

供應商系統 Supplier System Admission

- 根據評審結果，填寫《供應商準入審批表》和《付款條件確認函》，上傳全部供應商準入資料，經過 OA 審批後，成為合格供應商；

According to the review results, fill in the *Supplier Admission Approval Form* and *Payment Terms Confirmation Letter*, upload all supplier admission materials, and complete OA approval to become a qualified supplier.

績效評價 Performance Evaluation

- 根據不同類別供應商，依照《供應商績效管理標準》實施不同的週期性評價。

According to different categories of suppliers, conduct periodic evaluations in accordance with the *Supplier Performance Management Standards*.

供應商幫扶整改 Supplier Support and Rectification

- 採購人員根據每月供應商績效報告，對於績效較差的供應商，協同質量部門、技術部門、專業主管部門推動供應商整改；

Based on the monthly supplier performance reports, procurement personnel, together with the Quality Department, Technology Department, and relevant professional departments, shall drive rectification for underperforming suppliers.

- 對於一些同一問題多次發生，未見明顯改善的供應商，對其下發《供應商警示函》限期整改；

For suppliers with recurring issues and no obvious improvement, issue a *Supplier Warning Letter* requiring rectification within a time limit.

- 對於長期未改善，無法滿足天能要求的供應商，按照《供應商績效管理標準》進行淘汰（凍結）處理。

For suppliers that fail to improve for a long time and cannot meet Tianneng's requirements, eliminate (freeze) them according to the *Supplier Performance Management Standards*.

年度審核 Annual Audit

- 採購人員根據《供應商年度審核計劃》，按需組織質量部門、技術部門、內控法務部門等組成審核小組對供應商進行審核，輸出審核報告；

According to the *Supplier Annual Audit Plan*, procurement personnel shall organize an audit team consisting of the Quality Department, Technology Department, Internal Control and Legal Departments, etc., as needed, to conduct supplier audits and issue audit reports.

- 針對供應商整年不同的績效等級，分級進行年度審核。

Conduct annual audits based on suppliers' annual performance levels.

供應商數據

Supplier Data

指標 Indicators	單位 Unit	2025
供應商數量 Number of Suppliers	家 Nos	5,442
中國內地供應商數量 Number of Suppliers in Mainland China	家 Nos	5,432
其他地區供應商數量 Number of Suppliers in Other Regions	家 Nos	10

供應鏈風險管理 Supply Chain Risk Management

天能重視供應鏈風險管理，制定《採購風險管理制度》《採購廉潔管理辦法》及《採供行為準則》等規章制度，建立了規範、有效的採購風險控制體系，不斷提高風險防範能力，增強競爭力，保證集團安全、穩健、持續發展。

Tianneng values supply chain risk management, formulating rules and regulations such as the *Procurement Risk Management System, Procurement Integrity Management Measures*, and *Procurement and Supply Conduct Code*, establishing a standardized and effective procurement risk control system, continuously improving risk prevention capabilities, enhancing competitiveness, and ensuring the Group's safe, stable, and sustainable development.

天能各職能部門及業務單位廣泛、持久地收集與本集團風險和風險管控相關的內部、外部初始信息，採用鄧白氏風險管理等工具識別出本集團供應鏈風險類型，逐一分析，完善供應鏈風險清單。在此基礎上，堅持全面性和重要性原則，制定客觀真實且具有針對性的風險解決方案，形成風險評估報告。並及時與領導和各相關部門、各單位溝通預警，相應調整風險管控政策和管理措施。

Tianneng's various functional departments and business units extensively and persistently collect internal and external initial information related to the Group's risks and risk management, using tools such as Dun&Bradstreet risk management to identify the Group's supply chain risk types, analyze them one by one, and improve the supply chain risk inventories. On this basis, adhering to the principles of comprehensiveness and materiality, it formulates objective, truthful, and targeted risk solutions, forming risk assessment reports. It promptly communicates warnings to leaders and relevant departments and units, and adjusts risk control policies and management measures accordingly.

風險識別與分析 Risk Identification and Analysis + 風險評估報告 Risk Assessment Report + 風險預警與應對方案 Risk Early Warning and Response Plan

風險清單
Risk Inventories

外部風險 External Risks	內部風險 Internal Risks
意外風險 Unforeseeable Risks 價格風險 Price Risks 採購質量風險 Procurement Quality Risks 技術進步風險 Technological Advancement Risks 合同欺詐風險 Contract Fraud Risks	計劃風險 Planning Risks 合同風險 Contract Risks 驗收風險 Acceptance Risks 存量風險 Inventory Risks 責任風險 Responsibility Risks 信息風險 Information Risks

風險防範措
Risk Prevention Measures

措施 Measures	主要內容 Main Content
建立與完善採購中心內控制度，加強教育，提高素質 Establish and improve the internal control system of the Procurement Center, strengthen education, and enhance quality	建立與完善採購中心內部控制制度與程序，加強對採購業務人員的培訓和教育，不斷增強法律觀念，重視職業道德建設，做到依法辦事，培養團隊精神，增強內部的風險防範能力，從根本上杜絕合同風險。 Establish and improve the internal control system and procedures of the Procurement Center; strengthen the training and education of procurement personnel; continuously enhance legal awareness; emphasize professional ethics construction; act in accordance with the law; cultivate team spirit; enhance internal risk prevention capabilities; fundamentally eliminate contract risks.
加強對採購招標與簽約監督 Strengthen supervision over procurement bidding and contract signing	檢查採購招標是否按照規範的程序進行，是否存在違反規定的行為發生。 Check whether procurement bidding is carried out in accordance with standard procedures and whether there are any violations. 加強簽約監督，全面檢查合同條款。 Strengthen contract signing supervision and comprehensively inspect contract terms.
加強對採購全過程、全方位的監督 Strengthen supervision over the entire procurement process and all aspects	從計劃、審批、詢價、招標、簽約、驗收、覆算、付款等所有環節的監督。 Supervise all stages including planning, approval, inquiry, bidding, contracting, acceptance, accounting, and payment. 內控審計、財務審計、制度考核三管齊下。科學規範的採購機制，降低物資採購價格，提高物資採購質量，保護採購人員和避免外部矛盾。 Combine internal control audit, financial audit, and system assessment. A scientific and standardized procurement mechanism reduces material procurement prices, improves material procurement quality, protects procurement personnel and avoids external conflicts.

負責任供應鏈管理 Responsible Supply Chain Management

本集團將 ESG 理念貫穿供應鏈全週期，通過系統化評估與協同管理，與供應商攜手構建透明、韌性、可持續的綠色供應鏈生態。

Our group will integrate ESG concepts throughout the entire supply chain cycle, and work together with suppliers to build a transparent, resilient, and sustainable green supply chain ecosystem through systematic evaluation and collaborative management.

供應鏈 ESG 管理 Supply Chain ESG Management

本集團特別關注供應商的環境、社會及管治方面的工作，對供應商提出 ESG 管理要求及倡議。此外，本集團制定持續改進計劃和監督機制，鼓勵供應商在 ESG 方面創新，定期對採購人員、員工和供應商進行 ESG 管理培訓和審核。

The Group pays special attention to suppliers' environmental, social, and governance work, raising ESG management requirements and initiatives for suppliers. Additionally, the Group formulates continuous improvement plans and supervision mechanisms, encourages suppliers to innovate in ESG, and regularly conducts ESG management training and audits for procurement personnel, employees, and suppliers.

供應商 ESG 管理要求及倡議
Supplier ESG Management Requirements and Initiatives

環境 Environment

環境保護：供應商必須採取必要措施以盡量減少其商業活動對環境造成的不良影響，包括預防污染、資源保護、廢料回收、削減排放和正確排水等。

Environmental Protection: Suppliers must take necessary measures to minimize the adverse environmental impacts of their business activities, including pollution prevention, resource conservation, waste recycling, emission reduction, and proper drainage.

氣候變化和能源效率：供應商必須採取措施緩解氣候變化，按科學碳目標減少排放二氧化碳和其他溫室氣體，以尋求達到碳中和，包括管理氣候相關的影響和風險，使用可再生能源並開展節能降碳改造等措施。

Climate Change and Energy Efficiency: Suppliers must take measures to mitigate climate change, reduce emissions of carbon dioxide and other greenhouse gases according to science-based carbon targets, aiming to achieve carbon neutrality, including managing climate-related impacts and risks, using renewable energy, and implementing energy conservation and carbon reduction transformations.

廢棄物管理：供應商應避免廢棄物，尤其是危險廢棄物，提升運營過程以及上下遊價值鏈的回收率和資源保護，積極控制廢棄物帶來的重大影響。

Waste Management: Suppliers should avoid waste, especially hazardous waste, enhance recycling rates and resource protection in their own operations and throughout the upstream and downstream value chain, and actively control the significant impacts of waste.

水資源管理：供應商應根據可用性和質量有效用水、減少取水量、採用環境兼容方式處理水以及正確地處理廢水，尤其是在面對水緊張的地區 / 涉及當地社群。

Water Resource Management: Suppliers should use water effectively based on availability and quality, reduce water withdrawal, treat water in an environmentally compatible manner, and properly handle wastewater, especially in water-stressed areas or where local communities are involved.

生態系統與生物多樣性：供應商應致力保護生態系統與生物多樣性，建立、執行和保持相關環境政策。

Ecosystems and Biodiversity: Suppliers should commit to protecting ecosystems and biodiversity, establishing, implementing, and maintaining relevant environmental policies.

可循環性和資源效率：供應商必須採用符合循環經濟的方式管理材料，以減少提取資源和原料為目標，盡量減少廢棄物，使產品、材料和其他資源保持其最高價值。

Circularity and Resource Efficiency: Suppliers must adopt circular economy approaches to material management, aiming to reduce the extraction of resources and raw materials, minimize waste, and keep products, components, and other resources at their highest value.

社會 Society

勞工與人權：供應商必須遵從國際勞工標準，尊重勞工權利，避免使用童工和強迫勞動。

Labor and Human Rights: Suppliers must comply with international labor standards, respect labor rights, and avoid the use of child labor and forced labor.

職業健康與安全：供應商必須確保工作場所的安全和健康，定期進行職業健康與安全培訓。

Occupational Health and Safety: Suppliers must ensure a safe and healthy workplace and conduct regular occupational health and safety training.

管治 Governance

管理架構：供應商的管理架構必須透明，決策過程必須公正、透明。

Management Structure: Suppliers' management structures must be transparent, and decision-making processes must be fair and transparent.

薪酬政策：供應商必須確保薪酬政策公平、合理，避免性別和種族歧視。

Compensation Policy: Suppliers must ensure that compensation policies are fair and reasonable, avoiding gender and racial discrimination.

合規管理：供應商必須遵從所有適用的法律法規，避免違法違規行為。

Compliance Management: Suppliers must comply with all applicable laws and regulations, avoiding illegal and non-compliant behavior.

商業道德：供應商必須遵從商業道德，避免腐敗和不正當競爭行為。

Business Ethics: Suppliers must adhere to business ethics, avoiding corruption and unfair competition practices.

負責任採購管理 Responsible Procurement Management

本集團持續構建安全、合規、可持續的負責任供應鏈體系，通過系統化責任管制、風險管控與多方協作機制，對原材料中的有害物質及衝突礦產開展全面溯源管理，提升供應鏈透明度與可追溯性，推動全價值鏈人權保障與環境責任的有效落實。

The Group continuously builds a safe, compliant, and sustainable responsible supply chain system. Through systematic responsibility governance, risk control, and multi-party collaboration mechanisms, it conducts comprehensive traceability management of hazardous substances and conflict minerals in raw materials, enhances supply chain transparency and traceability, and promotes the effective implementation of human rights protection and environmental responsibility throughout the entire value chain.

本集團嚴格遵循經濟合作與發展組織（OECD）《受衝突影響和高風險區域礦石供應鏈盡職調查指南》及《中國負責任礦產供應鏈盡職調查指南》，將衝突礦產管理要求嵌入供應商管理要求，確保產銷監管鏈符合國際通行標準。

The Group strictly follows the Organisation for Economic Co-operation and Development (OECD) *Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* and the *China Due Diligence Guidelines for Responsible Mineral Supply Chains*, embedding conflict mineral management requirements into supplier management requirements to ensure that the chain of custody complies with internationally accepted standards.

報告期內，本集團未發現產品原材料中使用來自受衝突影響和高風險地區的情況。

During the reporting period, the Group did not identify any instances where raw materials used in products originated from conflict-affected and high-risk areas.

產品質量管理 Product Quality Management

天能堅持以高質量產品和服務的宗旨，秉持品質至上的原則，著力實施精細化管理策略，積極構建全面可持續的質量管理體系，在追求產效的同時保持高效運營，對每一件產品都高標準、嚴要求，通過制度措施制定、規範流程、團隊建設，系統性提升質量管理能力，築牢企業高質量發展根基。

Tianneng adheres to the purpose of high-quality products and services, upholds the principle of quality first, focuses on implementing refined management strategies, and actively builds a comprehensive and sustainable quality management system. While pursuing production efficiency, it maintains efficient operations, holding every product to high standards and strict requirements. Through the formulation of institutional measures, standardized processes, and team building, it systematically enhances quality management capabilities, solidifying the foundation for the enterprise's high-quality development.

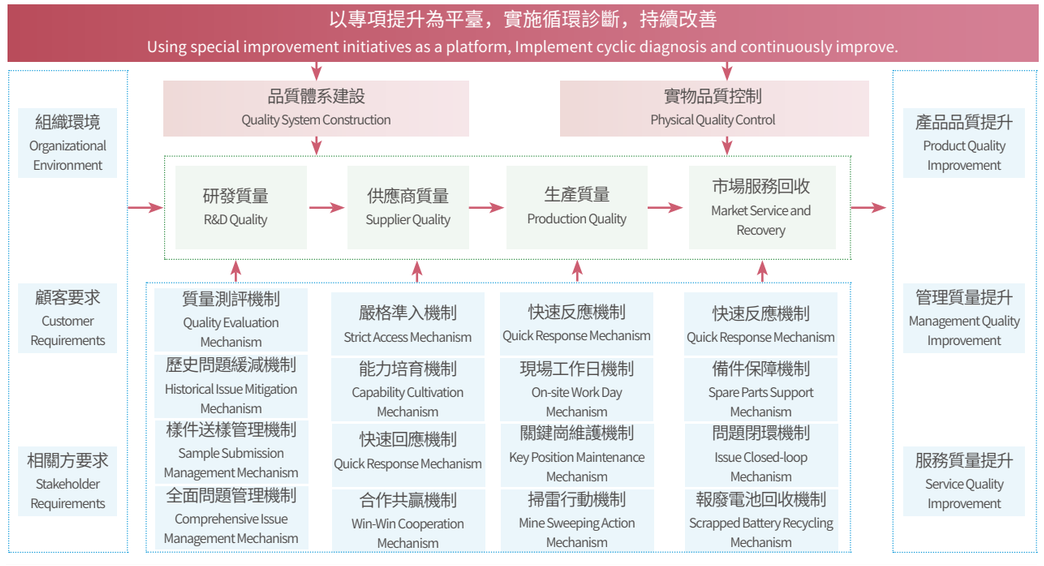
質量管理體系 Quality Management System

本集團組建以產品銷售、開發、製造為主體，以質量、供應鏈、設備儀器、檢測測試、人力資源管理為支持的組織架構，並制定完善 31 份流程文件和 48 份管理制度保障本集團質量管理體系運行。2025 年順利通過 ISO 9001 第三方監督審核和 3C、UL、中國船級社的現場監督審核，獲得 ISO 9001 質量管理體系和 IATF 16949 質量管理體系認證，並不斷完善全生命週期質量管控體系，堅守品質底線，堅持不製造缺陷、不傳遞缺陷、不接受缺陷、不放過缺陷。

The Group has established an organizational structure with product sales, development, and manufacturing as the main body, supported by quality, supply chain, equipment and instruments, testing, and human resource management. It has designated and perfected 31 process documents and 48 management systems to ensure the operation of the Group's quality management system. In 2025, it successfully passed the ISO 9001 third-party surveillance audit and on-site surveillance audits for 3C, UL, and China Classification Society, obtained ISO 9001 Quality Management System and IATF 16949 Quality Management System certifications, and continuously improves the full lifecycle quality control system, adhering to the quality bottom line, following the principles of not manufacturing defects, not passing on defects, not accepting defects, and not letting defects go.

產品全生命週期質量管控體系

Risk InventoriesProduct Full Lifecycle Quality Control System



質量管理架構 Quality Management Structure

集團質量管理工作由董事會全面統籌領導，董事會負責審議、決策集團科技創新相關重大事項。

The Group's quality management work is comprehensively coordinated and led by the Board of Directors, which is responsible for reviewing and deciding on major matters related to the Group's technological innovation.

集團管理層負責運營中質量管理工作的領導與推進。

The Group's management is responsible for leading and promoting quality management work in operations.

集團建立由研發質量、來料質量、制程質量、產品認證、體系管理、測試中心、售後服務團隊共約 600 人的質量管理團隊，負責質量管理工作的具體控制、監督等日常工作，保障項目進度全流程監督和質量評價，確保高質量交付。

The Group has established a quality management team of approximately 600 people, including teams for R&D quality, incoming material quality, process quality, product certification, system management, testing, and after-sales service. This team is responsible for the specific control, supervision, and other daily work of quality management, ensuring full-process supervision of project progress and quality evaluation, and guaranteeing high-quality delivery.

質量管理理念及方針 Quality Management Concept and Policy

以客戶為中心，質量第一，引領創新，安全可靠，持續改進產品質量。

Customer-centric, quality first, leading innovation, safe and reliable, continuous improvement of product quality.

質量定位 Quality Positioning

成為企業生命線捍衛者和價值中心。

Become a defender of the corporate lifeline and a value center.

質量規劃 Quality Planning

以全要素一次性做對為核心理念。

Core concept of getting all elements right the first time.

子公司質量管理體系認證證書（部分）

Subsidiary Quality Management System Certificates (Partial)

質量管理戰略

Quality Management Strategy

本集團以防風險、守底線、改落後、強機制為指引，從能力建設、組織建設、文化建設三個方向同時發力，以績效體系管理、深化變革、培訓體系管理、團隊建設、文化建設、能力提升為抓手，通過預防輸入風險、堅守質量底線、持續管理提升、築基質量體系，推動數智變革和質量文化來推進四端一網管控體系落地。

Guided by the principles of preventing risks, upholding the bottom line, improving outdated practices, and strengthening mechanisms, the Group e focuses on three key areas: capability building, organizational construction and cultural construction. Taking performance system management, deepening reforms, training system management, team building, cultural development, and capability enhancement as key drivers, it implements the "four ends one network" control system. This is achieved by preventing input risks, maintaining the quality bottom line, pursuing continuous management improvement, strengthening the quality system foundation, and promoting digital and intelligent transformation along with a robust quality culture.

質量控制以體系為根基，通過系統化的質量策劃與標準制定明確客戶需求導向的質量目標，將標準要求貫穿於設計、生產、檢驗等全流程，結合統計過程控制（SPC）與標準化作業（SOP）實現過程預防與穩定管控，依託科學檢驗方法與質量工具進行問題溯源改進，形成閉環的持續改進機制，確保產品性能、可靠性等滿足客戶期望，以質量滿意驅動品質生產力提升。 全面質量管理則通過構建全員參與的質量文化，落實質量責任制並開展 QC 小組活動，強化設計源頭預防與全生命週期過程管理，深度融合 PDCA 循環與質量風險管理，從售後服務保障到質量成本優化實現源頭治理，借助客戶反饋分析建立動態響應機制，以全過程信任鏈條贏得客戶信賴，從而鞏固產品競爭力優勢。

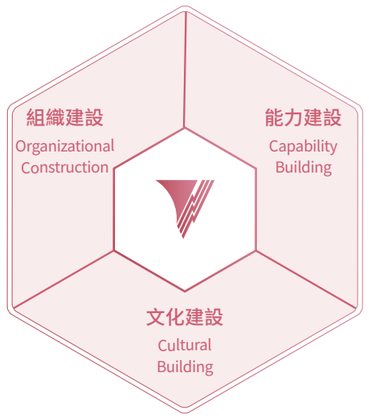
Quality control is rooted in the system. Through systematic quality planning and standard setting, clear quality objectives oriented by customer needs are defined. Standard requirements are implemented throughout the entire process from design, production, to inspection. Combined with Statistical Process Control (SPC) and Standard Operating Procedures (SOP), process prevention and stable control are achieved. Relying on scientific inspection methods and quality tools for problem tracking and improvement, a closed-loop continuous improvement mechanism is formed, ensuring that product performance, reliability, etc., meet customer expectations, driving quality productivity improvement through quality satisfaction. Total Quality Management, through the construction of a quality culture with full-staff participation, implements the quality responsibility system and carries out QC group activities, strengthens design source prevention and full lifecycle process management, deeply integrates the PDCA cycle with quality risk management, achieves source governance from after-sales service guarantee to quality cost optimization, establishes a dynamic response mechanism through customer feedback analysis, and wins customer trust with a full-process trust chain, thereby consolidating product competitiveness advantages.

數智質量與協同質量依託數字化平臺整合 ERP、MES、CRM 等數據，運用 AI 視覺檢測與大數據分析實現智能質檢與質量預測，通過供應鏈質量協同系統對上遊供應商實施分級管理與聯合改進，構建全產業鏈質量追溯體系，以戰略牽引制定質量發展規劃，結合創新模式打通產業鏈協同壁壘，最終通過持續高質量供給塑造品牌影響力，推動企業從質量合格邁向質量卓越，實現可持續發展與市場領先地位。

Digital Quality and Collaborative Quality rely on a digital platform integrating ERP, MES, CRM and other data, utilizing AI visual inspection and big data analysis to achieve intelligent quality inspection and quality prediction. Through a supply chain quality collaboration system, tiered management and joint improvement of upstream suppliers are implemented, constructing a full-industry-chain quality traceability system. Strategic guidance formulates quality development plans, combined with innovative models to break down industry chain collaboration barriers, ultimately shaping brand influence through continuous high-quality supply, promoting the enterprise's journey from quality compliance to quality excellence, and achieving sustainable development and market leadership.

策劃專業質量工具、精實六西格瑪、資料分析培訓，提升基地質量人員能力，組織開展品質體系內審活動；

Plan professional quality tools, Lean Six Sigma, and data analysis training to improve the capabilities of quality personnel at each site, and conduct internal audits of the quality system.



組織結構調整增強團隊互補能力，績效考核個性化方案，項目制運營活動激發全員士氣，推動跨部門合作。

Adjust the organizational structure to enhance team synergy; implement personalized performance appraisal schemes and project-based operations to boost morale and promote cross-departmental collaboration.

通過「請進來走出去」對標交流活動，學習先進企業品質管制水準，持續開展質量活動，用活質量專項基金，推動全員質量改善熱情。

Carry out benchmarking exchanges by inviting outstanding enterprises to visit and sending teams to learn, improve quality management practices, conduct continuous quality activities, make good use of special quality funds, and stimulate the enthusiasm of all employees for quality improvement.

質量風險管理
Quality Risk Management

本集團始終將產品質量視作企業發展的生命線，構建了覆蓋原料使用、研發設計、生產製造、供應鏈協同、售後服務等產品全生命週期的質量風險防控體系。

The Group always regards product quality as the lifeline of corporate development, and has built a quality risk prevention and control system covering the entire product life cycle, including raw material use, R&D design, production manufacturing, supply chain collaboration and after-sales service.

前瞻性風險識別
Forward-looking Risk Identification

深度運用 PEST、SWOT 等多種風險識別工具，識別潛在技術風險，確保產品設計在安全性與可靠性上的領先。

The Group deeply uses various risk identification tools such as PEST and SWOT to identify potential technical risks, ensuring product design leads in safety and reliability.

嚴苛的過程管控
Rigorous Process Control

實施嚴格的工藝標準化管理，通過監測設備與自動化品控系統，實現生產數據的實時採集與異常預警。通過關鍵工序的閉環控制，最大限度消除製造偏離。

The Group implements strict process standardization management. Through monitoring equipment and automated quality control systems, it achieves real-time collection of production data and abnormal warning. Through closed-loop control of key processes, manufacturing deviations are eliminated to the maximum extent.

供應鏈協同品質
Supply Chain Collaborative Quality

堅持供應商分級管理與常態化現場審核，將質量風險延伸至原材料端，嚴格篩選供應商，確保原材料環保無害，確保供應鏈全鏈條的品質一致性。

The Group insists on tiered management of suppliers and normalized on-site audits, extending quality risk prevention to the raw material stage, strictly screening suppliers to ensure raw materials are environmentally friendly and harmless, and guaranteeing quality consistency throughout the entire supply chain.

數字化追蹤與反饋
Digital Traceability and Feedback

依託數智平臺，建立了產品數字化溯源體系。通過收集售後反饋與實地運行數據，建立風險快速響應機制，並反哺研發與工藝改進，形成質量持續提升的良性循環。

Relying on the digital intelligence platform, the Group has established a product digital traceability system. By collecting after-sales feedback and field operation data, it establishes a rapid risk response mechanism, feeding back into R&D and process improvement, forming a virtuous cycle of continuous quality improvement.

本集團通過標準化的管理流程與先進的檢測技術，將質量不確定性降至最低，為客戶提供安全、高效、環保的動力電池及儲能系統解決方案。

Through standardized management processes and advanced detection technologies, the Group minimizes quality uncertainty, providing customers with safe, efficient, and environmentally friendly power battery and energy storage system solutions.

「質量風險控制機制」
"Quality Risk Control Mechanisms"

品質要求：提升對產品原材料的要求，確保其純度和性能符合高質量標準，從源頭保障電池品質。

Quality Requirements: Raise requirements for product raw materials, ensuring their purity and performance comply with high-quality standards, safeguarding battery quality from the source.

結構優化：不斷優化產品結構，合理設計極板活性物質、極板間距、隔板孔隙率等，降低單位面積負載，提升產品一致性，有效提高產品循環壽命和充放電效率。如採用新型板柵合金材料，增強極板的耐腐蝕性。

Structural Optimization: Continuously optimize product structure, rationally design plate active material, plate spacing, separator porosity, etc., reduce load per unit area, boost product consistency, effectively increase product cycle life and charge-discharge efficiency. For example, using new grid alloy materials to enhance plate corrosion resistance.

過程管理：採取過程管理方式，對產品或服務的各個環節進行有效控制。推行 6σ、精益生產等持續改進機制，定期開展質量分析與優化。通過制定流程和規範，確保每個環節能按照要求進行操作。採用供應商前置管理，導入 SPC 過程控制，從材料的穩定性和可靠性保證產品常規性能和壽命。採用先進生產工藝、設備群控和雲充電等智能製造升級，對生產過程中的關鍵參數，如溫度、濕度、電流密度等進行實時監控和調整，保證產品一致性和穩定性。

Process Management: Adopt a process management approach to effectively control all aspects of products or services. Implement continuous improvement mechanisms such as 6σ and lean production, and regularly conduct quality analysis and optimization. By formulating processes and specifications, ensure each link operates according to requirements. Implement supplier pre-management, introduce SPC process control, and ensure routine performance and lifespan of products through material stability and reliability. Utilize advanced production processes, equipment group control, cloud charging, and other intelligent manufacturing upgrades to monitor and adjust key parameters during production, such as temperature, humidity, and current density, in real time, ensuring product consistency and stability.

質量培訓：加強對員工的質量培訓，增強其質量意識和技能水平。培訓內容包括新技術標準，TQM 質量管理方法，6σ 統計工具的應用等，通過培訓營造全員參與質量、全員重視質量的良好氛圍。為供應商、終端用戶提供詳細的產品使用說明書和培訓服務，指導正確使用和維護電池，避免因使用不當造成電池性能下降或損壞。

Quality Training: Strengthen quality training for employees, improving their quality awareness and skill levels. Training content includes new technical standards, TQM quality management methods, application of 6σ statistical tools, etc. Through training, create a positive atmosphere where everyone participates in and values quality. Provide detailed product instructions and training services for suppliers and end-users, guiding correct battery use and maintenance to avoid performance degradation or damage due to improper use.

質量審核：遵循嚴格的質量檢測流程，對半成品和成品進行多道檢測。定期進行內部和外部的質量審核，評估質量管理體系的有效性和符合性，通過審核結果，及時發現和糾正存在的問題。

Quality Audits: Follow strict quality inspection processes, conducting multiple inspections on semi-finished and finished products. Conduct regular internal and external quality audits to evaluate the effectiveness and compliance of the quality management system. Through audit results, timely identify and rectify existing problems.

改善模型：推行持續改進的理念，以改善糾正、改善預防、改善創新為抓手，推動各事業部、子公司、基地自主改善提升。成立改善項目小組，通過分析質量數據和客戶反饋，找出問題的根本原因，並採取相應的改善措施。

Improvement Model: Promote the concept of continuous improvement, using corrective improvement, preventive improvement, and innovative improvement as starting points to drive self-driven improvement and enhancement across various business units, subsidiaries, and bases. Establish improvement project teams, analyze quality data and customer feedback to identify root causes of problems, and take corresponding improvement measures.

獎懲機制：設置質量獎項與處罰機制，對質量表現優秀的團隊和個人給予獎金激勵，對於造成重大質量事故的責任人進行嚴肅處理，包括警告、降職、停薪等。

Reward and Punishment Mechanism: Establish quality awards and punishment mechanisms. Provide bonus incentives to teams and individuals with excellent quality performance. Strictly Impose severe penalties on those responsible for major quality accidents, including warnings, demotions, suspension of pay, etc.

QMS 系統：建立全面的產品質量監控和質量信息收集平臺，通過數採設備採集質控點數據，納入線上平臺，並通過系統的運算能力進行統計分析，實現生產過程透明可視，預防批量質量風險，為退貨分析提供溯源。

QMS System: Establish a comprehensive product quality monitoring and quality information collection platform. Collect quality control point data through data acquisition equipment, incorporate it into an online platform, and perform statistical analysis through the system's computing capabilities. This achieves transparency and visibility of the production process, prevents batch quality risks, and provides traceability for return analysis.

質量管理目標與指標
Quality Management Objectives and Indicators

本集團始終將產品質量視作企業發展的生命線，構建了覆蓋原料使用、研發設計、生產製造、供應鏈協同、售後服務等產品全生命週期的質量風險防控體系。

The Group always regards product quality as the lifeline of corporate development, and has built a quality risk prevention and control system covering the entire product life cycle, including raw material use, R&D design, production manufacturing, supply chain collaboration and after-sales service.

質量管理目標 Quality Management Objectives

鉛蓄條線質量管理目標 Lead-Acid Line Quality Management Objectives

構建覆蓋設計、供方、過程、市場的全生命週期質量管控體系，通過 ISO 9001 等體系認證，堅守「四不」品質底線。具體包括：強化市場調研與設計需求評審、完善 OEM 供應商準入評審、生產過程控制與售後質量跟蹤；完善技術標準與檢測體系，落實「飛行檢查」制度；並依託庫存與呆滯品管理機制降低質量風險，最終實現從「質量滿意」到「質量領先」的長期提升。

Construct a full lifecycle quality control system covering design, suppliers, processes, and market, passing system certifications such as ISO 9001, upholding the "four no's" quality bottom line. Specifically includes: strengthening market research and design requirement review, improving OEM supplier access review, production process control, and after-sales quality tracking; improving technical standards and testing systems, implementing the "unannounced inspection" system; and relying on inventory and obsolete product management mechanisms to reduce quality risks, ultimately achieving a long-term improvement from "quality satisfaction" to "quality leadership.

鋰電條線質量管理目標 Li-ion Battery Line Quality Management Objectives

建立覆蓋研發、來料、制程、認證及售後的全流程質量管理體系，通過 ISO 9001 等認證審核。具體包括：規範供應商開發與驗證程序，強化來料質檢與留樣管理；依託市場反饋與競品分析成立專項改善小組，提升產品市場質量水平；並確保全年無產品召回案例，支撐鋰離子電池業務成為高質量發展。

Establish a full-process quality management system covering R&D, incoming materials, processes, certification, and after-sales, passing certification audits such as ISO 9001. Specifically includes: standardizing supplier development and verification procedures, strengthening incoming material quality inspection and sample retention management; relying on market feedback and competitor analysis to establish special improvement teams, enhancing product market quality levels; and ensuring zero product recalls throughout the year, supporting the Li-ion battery business to become the Company's second growth curve.

質量管理目標進度完成情況
Progress of Quality Management Objectives

鉛蓄條線質量提升措施
Lead-Acid Line Quality Improvement Measures

全流程體系管控: 構建覆蓋「設計質量、供方質量、過程質量、市場質量」的全生命週期質量管控體系，堅守「不製造缺陷、不傳遞缺陷、不接受缺陷、不放過缺陷」的品質底線，內部質量損失下降 50%，市場退貨率穩中有降。

Full-Process System Control: Construct a full lifecycle quality control system covering "design quality, supplier quality, process quality, market quality", upholding the quality bottom line of "not manufacturing defects, not passing on defects, not accepting defects, and not letting defects go", reducing internal quality losses by 50%, and steadily decreasing market return rates.

供應商與 OEM 管理：嚴格執行供應商準入評審，簽訂《質量協議》；對 OEM 產品實施生產過程控制、產品測試評價及出入庫檢驗；建立《OEM 產品庫存報表》和呆滯品處理機制，原輔材料入廠合格率提升 98.5% 以上。

Supplier and OEM Management: Strictly implement supplier access reviews, signing *Quality Agreements*; implement production process control, product testing evaluation, and inbound/outbound inspection for OEM products; establish *OEM Product Inventory Reports* and obsolete product handling mechanisms, increasing the incoming material acceptance rate by over 98.5%.

技術標準與檢測強化：由研究院制定產品工藝、質量標準及驗收標準；完善《電動車用鉛蓄電池售後服務技術標準》，細化故障電池檢測判定流程（如外觀污染、過放電、短路 0V 電池等）。

Strengthening Technical Standards and Testing: The Research Institute formulates product processes, quality standards, and acceptance criteria. Improve the *Technical Standards for After-Sales Service of Lead-Acid Batteries for Electric Vehicles*, refining the inspection and judgment process for faulty batteries (such as appearance contamination, over-discharge, short-circuit 0V batteries, etc.).

遵循檢查與整改：針對基地內控缺陷（如報檢單不規範、BOM 管理混亂、物料交接不清）開展合規性檢查，制定整改措施並落實責任人，確保流程執行到位。

Inspection and Rectification Follow-Up: Carry out compliance inspections targeting internal control deficiencies at bases (such as non-standard inspection request forms, disorganized BOM management, unclear material handovers), formulate rectification measures, and assign responsible persons to ensure processes are fully implemented.

鋰離子電池條線質量提升措施
Li-ion Battery Line Quality Improvement Measures

統一技術標準管理體系。開展了各項原材料技術標準完善的調研和驗證，對多項技術標準進行統一更新迭代；對集團檢測中心開展規範性評價，並出具整改報告。

Unify the technical standard management system. Conduct research and validation for the improvement of various raw material technical standards, centrally update and iterate multiple technical standards; perform normative evaluations on the Group's testing centers and issue rectification reports.

建立產品質量的「飛行檢查」制度，對多起質量不過關的產品提出整改，築牢研發質量防線。

Establish a "spot check" system for product quality, requiring rectification for multiple batches of substandard products to solidify the R&D quality defense line.

通過市場反饋統計分析、競品測試分析及制程問題發現、成立改善專項小組分析問題根因，制定改善對策，提升產品市場質量水平；

Through statistical analysis of market feedback, competitive product testing analysis, and identification of process issues, establish special improvement teams to analyze root causes of problems, formulate improvement countermeasures, and enhance product quality levels in the market.

4 個實驗室通過 CNAS（中國合格評定國家認可委員會）認證，保障。電芯和 PACK 系列產品進行並通過 GB、UL、IEC、BIS、CCS、泰爾通訊安全認證和 UN 運輸認證及 ROHS、REACH 有害物質檢測認證。

4 laboratories have obtained CNAS (China National Accreditation Service for Conformity Assessment) certification, providing assurance. Cells and PACK series products have passed and are certified according to GB, UL, IEC, BIS, CCS, TLC Communication Safety Certification, UN Transport Certification, and ROHS, REACH hazardous substance testing certifications.

建立 MES、PDM、LIMS 系統可系統記錄存儲查閱產品開發、驗證測試、制程數據，保障產品質量。

Establish MES, PDM, and LIMS systems capable of systematically recording, storing, and retrieving product development, verification testing, and process data, ensuring product quality.

通過全閉環管理跟蹤，本集團有效控制了產品偏離度，報告期內，產品交期的計劃達成率達到了 100%，無產品質量問題召回案例發生。

Through full closed-loop management tracking, The Group effectively controlled product deviation. During the reporting period, the planned on-time delivery rate reached 100%, and there were no product recalls due to quality issues.

CNAS 實驗室
CNAS Laboratory

CNAS 證書
CNAS Certificate

有害物質管理 Hazardous Substance Management

本集團嚴格遵循國內外相關法規（如 RoHS、REACH）及行業標準，確保產品全生命週期符合環保與安全要求。為規範本集團的有毒有害物質減免（HSF）管理流程，本集團嚴格遵從集團制定《有毒有害物質管理規定》及《有害物質識別與評價管理規定》等制度，明確禁用物質清單及限值要求。

The Group strictly complies with relevant domestic and international regulations (such as RoHS, REACH) and industry standards, ensuring that products meet environment, health and safety requirements throughout their entire lifecycle. To standardize the Group's Hazardous Substances Free (HSF) management process, the Group strictly adheres to systems formulated by the Group, including the *Management Regulations for Toxic and Hazardous Substances* and the *Management Regulations for Hazardous Substance Identification and Evaluation*, clarifying prohibited substance lists and limit requirements.

有毒有害物質減免方針
Hazardous Substance Free Policy

遵從法律法規，落實顧客要求；
Comply with laws and regulations, implement customer requirements;

建立環保制程，生產綠色產品；
Establish environmentally friendly processes, produce green products;

削減有害物質，保護地球家園。
Reduce hazardous substances, protect our planet.

有毒有害物質減免方針
Hazardous Substance Free Policy

HSF 來料合格率 100%，HSF 成品出貨合格率 100%
100% incoming material HSF qualification rate, 100% finished product shipment HSF qualification rate

集團有害物質管控分類 Group Hazardous Substance Control Classification

A 類管控物質 Category A Controlled Substances

限制使用的鉛、鎘、汞、六價鉻、多溴聯苯、多溴聯苯醚六種環境有害物質，以及四種鄰苯二甲酸酯類（DEHP、DBP、BBP、DIBP）物質。

Restricted use of six environmental hazardous substances: Lead, Cadmium, Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE), and four Phthalates (DEHP, DBP, BBP, DIBP).

B 類管控物質 Category B Controlled Substances

被認為對人體以及環境有害，且需要滿足管控物質清單中管控要求的物質。

Substances considered harmful to human health and the environment, requiring compliance with control requirements specified in the controlled substances list.

有害物質管理舉措 Hazardous Substance Management Actions

供應商管理 Supplier Management

推行綠色採購政策，要求供應商按《供應商有害物質管理規定》提供材料成分聲明（MSDS）及第三方有害物質檢測報告，保證物料持續滿足 HSF 要求。

Promote green procurement policies, requiring suppliers to provide Material Safety Data Sheets (MSDS) and third-party hazardous substance test reports according to the *Supplier Management Regulations for Hazardous Substances*, ensuring materials continuously meet HSF requirements.

產品檢測 Product Testing

對原材料、半成品及成品進行有害物質檢測，確保樣品的有毒有害物（HS）符合性信息。

Conduct hazardous substance testing on raw materials, semi-finished products, and finished products to ensure sample compliance with Hazardous Substance (HS) requirements.

生產過程管控 Production Process Control

對生產過程中的所有化學物質進行有效標識和區分，按有害物質污染源識別流程對工序進行系統性評估，同時通過工藝優化與材料替代降低有害物質使用風險。

Effectively identify and segregate all chemical substances used in the production process, systematically evaluate procedures according to hazardous substance pollution source identification processes, and reduce the risk of hazardous substance use through process optimization and material substitution.

異常處理 Non-conformance Handling

發生環境管理物質異常時，立即隔離不合格品並貼上 HS 不合格標籤，防止混用。當有害物質超標的不合格品或可疑品流入客戶端時，主動通知客戶，按照《不合格品控制流程》處理。

When abnormalities in environmental management substances occur, immediately isolate non-conforming products and label them with HS non-conforming labels to prevent mixing. When hazardous substance excessive non-conforming products or suspect products flow to the customer side, proactively notify customers and handle them according to the *Non-Conforming Product Control Process*.

有害物質培訓 Hazardous Substance Training

每年至少開展一次有害物質相關培訓，提升員工有害物質識別與管控能力，使其及時瞭解法規及標準更新情況，踐行可持續發展承諾，為客戶提供安全環保產品。

Conduct at least one hazardous substance-related training annually to enhance employees' ability to identify and control hazardous substances, enabling them to stay updated on regulations and standard changes, fulfill the commitment to sustainable development, and provide customers with safe and environmentally friendly products.

客户服務保障 Customer Service Assurance

本集團始終將客戶權益保障與全週期服務視為企業可持續發展的重要基石。持續貫徹高質量客戶服務，重視客戶體驗並將其作為衡量服務質量的核心標尺。集團建立了「集團統一窗口 + 事業部落地執行」的雙層售後服務體系，組建具有豐富經驗的客服團隊，不斷優化和完善服務體系，通過多渠道及時響應客戶咨詢反饋，快速處理問題，確保客戶訴求得到高效、專業、閉環響應，持續提升客戶滿意度。

The Group has always regarded customer rights protection and full-cycle service as important cornerstones of corporate sustainable development. It continuously implements high-quality customer service, values customer experience, and regards it as the core yardstick for measuring service quality. The Group has established a two-layer after-sales service system of "Group unified window+business division implementation," forming an experienced customer service team, continuously optimizing and improving the service system, promptly responding to customer inquiries and feedback through multiple channels, quickly handling problems, ensuring efficient, professional, and closed-loop responses to customer requirements, and continuously improving customer satisfaction.

服務宗旨 Service Purpose	精誠服務，追求卓越 Sincere Service, Pursuing Excellence
服務方針 Service Policy	讓客戶滿意，讓客戶認同 Satisfy Customers, Gain Customer Recognition
服務理念 Service Concept	以客戶為中心，快速響應；處理問題有始有終，注重細節；提高服務速度，日清日畢；規範服務標準，統一服務流程 Customer-centric, Rapid Response; Handle Problems Thoroughly, Pay Attention to Details; Improve Service Speed, Finish Tasks Daily; Standardize Service Norms, Unify Service Processes
核心策略 Core Strategy	為品牌增值、創用戶感動，打造價值共贏的全域服務生態圈 Add value to the brand, create user touching moments, and build a global service ecosystem for value co-creation.

五個中心 Five Centers	客戶信息受理與服務中心、客戶平臺構建與管理中心、信息數據驅動與閉環中心、客戶服務價值與增值中心、服務標準化打造協同中心 Customer Information Reception and Service Center, Customer Platform Construction and Management Center, Information Data-driven and Closed-loop Center, Customer Service Value and Value-added Center, Service Standardization and Collaboration Center.

客戶服務體系 Customer Service System

400 客訴平臺 400 Customer Complaint Platform

- 作為集團對外的統一服務窗口，該平臺全面覆蓋售前、售中、售後全鏈條服務，平臺制定並推行《控股集團客訴管理辦法》，通過標準化、流程化、權責清晰的客訴管理機制，實現客訴工單的自動分發、過程跟蹤與結果復核；建立跨部門協同機制，對複雜客訴啓動升級報備與聯合處理流程；將客訴處理時效、解決率、客戶滿意度納入相關部門績效考核，強化責任落實。

As the unified external service window of the Group, this platform covers the entire service chain including pre-sales, sales and after-sales services. The platform formulates and implements the *Holding Group Customer Complaint Management Method*, and realizes automatic distribution, process tracking and result review of customer complaint orders through a standardized, process-based and clearly delegated complaint management mechanism. A cross-departmental coordination mechanism is established to initiate escalation reporting and joint handling processes for complex complaints. Complaint handling timeliness, resolution rate and customer satisfaction are included in the performance appraisal of relevant departments to strengthen responsibility implementation.

事業部售後執行組織 After-sales Execution Organization of Business Division

- 各事業部作為客訴處理的第一責任單元，負責客訴即時響應與現場處理； 制定並執行本領域服務政策、保障方案與操作規範；處理結果反饋與案例歸檔，形成閉環管理。

Each business division, as the first responsible unit for complaint handling, is responsible for immediate response and on-site handling of complaints. They formulate and implement service policies, support plans and operation specifications in its field; send feedback on handling results and file cases to form closed-loop management.

通過售後數據與客戶反饋驅動產品與服務的持續優化 Continuously optimize products and services driven by after-sales data and customer feedback

- 定期分析客訴數據，識別共性問題和改進機會，反饋至研發、生產與質量部門；開展售後人員專業培訓與服務能力認證，提升一線服務團隊的專業性與響應效率；探索數字化服務工具應用，逐步實現服務過程可追溯、客戶自助查詢、智能診斷等創新服務模式。

Regularly analyze complaint data to identify common problems and improvement opportunities, and feed back to R&D, production and quality departments; conduct professional training and service capability certification for after-sales personnel to improve the professionalism and response efficiency of front-line service teams; explore the application of digital service tools to gradually realize innovative service models such as traceable service processes, customer self-service queries and intelligent diagnosis.

客戶信息保密 Customer Information Confidentiality

- 在服務全過程中，我們嚴格遵循客戶信息保密制度，所有服務記錄與客戶數據均按集團信息安全規範進行管理，確保客戶私隱不受侵犯 。

Throughout the service process, we strictly follow the customer information confidentiality system, and all service records and customer data are managed in accordance with the Group's information security specifications to ensure customer privacy is protected.

客戶服務模式
Customer Service Model

以產品說明書實現產品正確使用：增加產品在各種極端場景的試用和模擬，定期進行說明書的細化，通過說明書電子信息推送、微信視頻講解、線下培訓等方式幫助客戶正確使用產品。

Achieve correct product use through product manuals: Increase product trials and simulations under various extreme scenarios, regularly refine manuals, and help customers use products correctly through electronic manual push notifications, WeChat video explanations, offline training, and other methods.

以定制化服務滿足客戶需求：以客戶需求為中心，提供滿足其不同車型的電池產品，並根據客戶在不同階段的獨特需求，通過聯合研發、定制開發的模式，提供深度的產品定制服務。

Meet customer needs with customized services: Centered on customer needs, provide battery products suitable for their different vehicle models, and offer in-depth product customization services through joint R&D and customized development models based on customers' unique needs at different stages.

以資源共享推動價值共創：與客戶的合作從產品供求關係轉向價值共創關係，通過高鐵聯合冠名、市場聯合推廣、品牌聯合傳播等形式，深度運營客戶關係，彼此形成資源共享、價值共創的命運共同體。

Promote value co-creation through resource sharing: Shift cooperation with customers from product supply-demand relationships to value co-creation relationships. Through forms such as joint high-speed rail naming, joint market promotion, and joint brand communication, deeply operate customer relationships, forming a community of shared destiny for resource sharing and value co-creation.

以駐場服務解決特殊問題：售後技術工程師提供駐場服務，針對客戶特殊工況，及時進行系統優化和維保策略調整，全力以赴解決系統及零部件故障，為產品安全平穩運行保駕護航。

Solve special problems with on-site services: After-sales technical engineers provide on-site services, promptly perform system optimization and maintenance strategy adjustments for customers' special operating conditions, spare no effort to solve system and component failures, and escort the safe and stable operation of products.

以回收網絡提供回收服務：依託本集團完善的回收網絡，與經銷商、售後服務中心等合作，方便用戶將廢舊電池交回，提高回收率，減少環境污染風險。

Provide recycling services through the recycling network: Relying on the Group's comprehensive recycling network, cooperate with distributors and after-sales service centers to facilitate users in returning waste batteries, improve the recycling rate, and reduce environmental pollution risks.

指標 Indicators	單位 Unit	2025
客戶反饋響應率 Customer Feedback Response Rate	%	100
客戶投訴次數 Number of Customer Complaints	次 Times	4,075
累計客戶服務次數 Total Number of Customer Services	次 Times	96,772
客戶滿意度 Customer Satisfaction	%	98.9，此僅為掛機滿意度 98.9, this is only the installation satisfaction rate

根據實際市場情況，安排走訪計劃，實地考察客戶滿意度，最終輸出走訪報告。

Arranged visit plans are implemented according to actual market conditions to conduct on-site investigation of customer satisfaction, and finally submit visit reports.

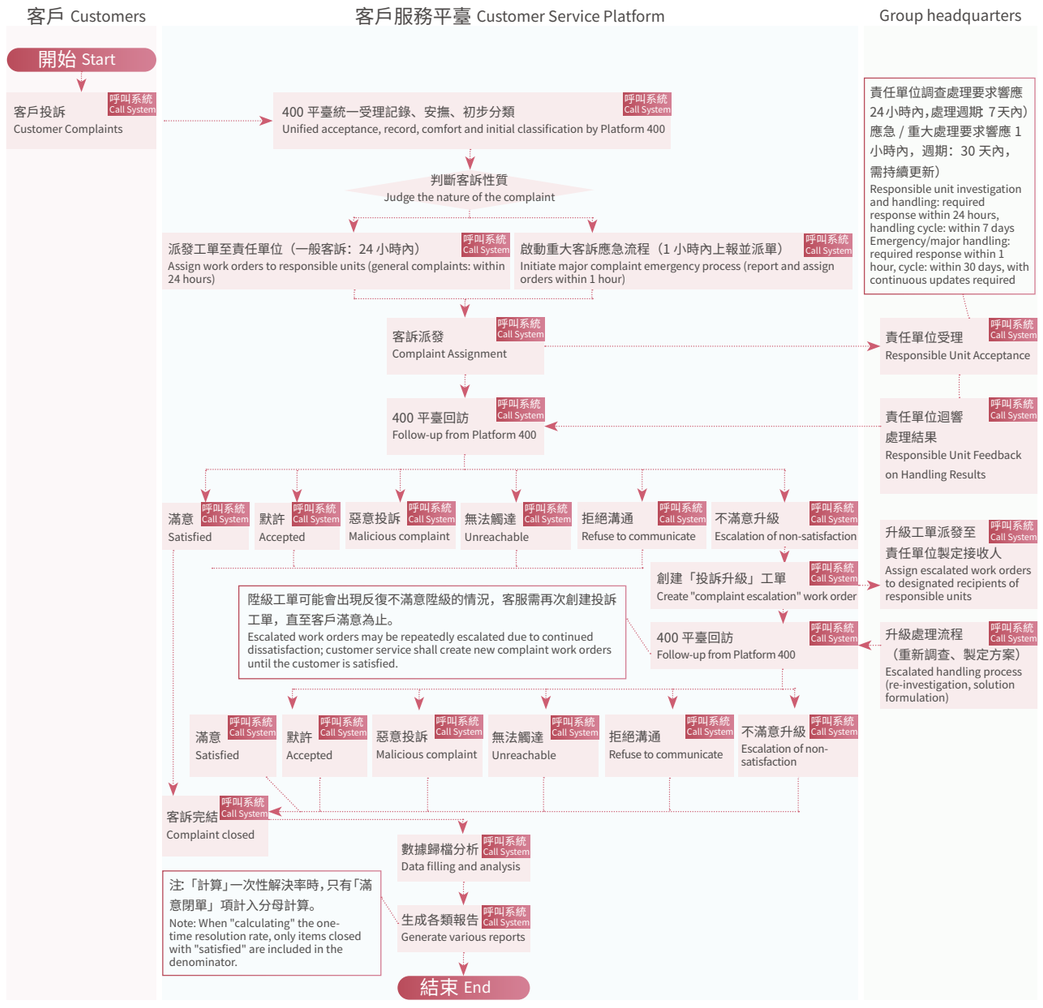
每次話務服務結束後實時觸發滿意度情況回訪，2025 年度全年掛機滿意度為 98.9%。

A satisfaction follow-up is triggered in real time after each call service. The overall hang-up satisfaction rate for 2025 was 98.9%.

每次會根據實際情況設定不同的話術或調研問卷，以集團簽約的共贏商為主推進電話回訪，保持客戶互動黏性。

Each time, different scripts or questionnaires are set according to the actual situation, focusing on the Group's win-win partners to conduct telephone follow-up and maintain customer interaction.

客訴處理流程圖
Customer Complaint Handling Flowchart



信息安全與私隱保護 Information Security and Privacy Protection

天能始終將數據安全與客戶私隱保護視為重要議題，持續推動信息安全及數據安全建設工作。2025 年集團更新了《信息安全管理制度》，並同步更新《安全事件管理制度》《計算機病毒防範管理制度》等 19 項管理制度，發佈 10 項《天能信息系統安全管理基線》配置標準，完成 ISO 27001 信息安全管理體系認證新版換證。

Tianneng has always regarded data security and customer privacy protection as important issues, continuously promoting the development of information security and data security. In 2025, the Group updated the *Information Security Management System*, and simultaneously updated 19 management systems including the *Security Incident Management System* and *Computer Virus Prevention Management System*, issued 10 *Tianneng Information System Security Management Baseline* configuration standards, and completed the renewal of the latest version of the ISO 27001 Information Security Management System certification.

此外，本集團建立信息安全內部審查制度，由信息安全小組各成員監督信息安全管理活動的日常執行，持續推動網絡與信息安全重大事項的決策和協調，明確信息安全管理、數據庫管理等崗位，調整組織架構並適配集團及各分支機構信息安全相關工作，對發現的問題及時向小組成員彙報並處理。同時，本集團與相關技術人員簽署了保密協議，確保數據及客戶信息得到全面、有效的保護。

Additionally, the Group established an internal information security review system. Members of the information security team supervise the daily execution of information security management activities, continuously promote the decision-making and coordination of major network and information security matters, clarify information security management and database management positions, adjust the organizational structure and adapt to information security-related work of the Group and its branches, and promptly report and handle discovered issues to team members. Simultaneously, the Group signed confidentiality agreements with relevant technical personnel to ensure comprehensive and effective protection of data and customer information.

報告期內，未發生數據安全、客戶私隱洩露事件。

During the reporting period, no data security or customer privacy leakage incidents occurred.

ISO 27001 信息安全管理體系認證證

ISO 27001 Information Security Management System Certificate

2025 年，集團推動「主機安全防護項目」「統一安全項目」「數據庫安全管理項目」，持續加強技術防護，包括防火牆監控、態勢感知、數據庫審計、日記審計等。完成文檔加密軟件舊版升級，完善權限申請流程，並對接釘釘及業務系統智能加密、移動手機端、終端數據防洩漏等多個模塊及相關功能，提升了信息安全防護能力，並在下半年「2025 浙江省護網行動」中取得良好成績。

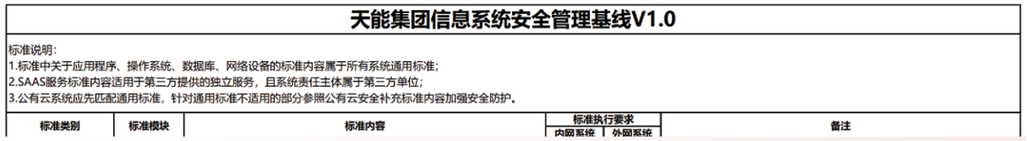
In 2025, the Group promoted the "Host Security Protection Project," "Unified Security Project," and "Database Security Management Project," continuously strengthening technical protection, including firewall monitoring, situation awareness, database auditing, and log auditing. It completed the upgrade of the old version of document encryption software, improved the permission application process, and integrated multiple modules and related functions such as intelligent encryption with DingTalk and business systems, mobile terminals, and terminal data leakage prevention, enhancing information security protection capabilities, and achieved good results in the "2025 Zhejiang Province Network Protection Exercise" in the second half of the year.

案例 Case

天能信息系統安全管理基線 Tianneng Information System Security Management Baseline

集團針對暴露在互聯網的網絡資產進行專業安全漏洞掃描，並依據掃描結果展開相應預防和改善。針對操作系統及常用工具軟件配置，發佈了《天能信息系統安全管理基線》配置標準。針對各業務系統服務器主機，推行「主機安全防護項目」，在主要系統主機上安裝防毒軟件、更新系統補丁等措施。

The Group conducted professional security vulnerability scans for network assets exposed to the internet, and implemented corresponding prevention and improvement measures based on the scan results. For operating system and common tool software configurations, it issued the *Tianneng Information System Security Management Baseline* configuration standards. For business system server hosts, it promoted the "Host Security Protection Project," installing antivirus software on major system hosts and updating system patches.



天能集团信息系统安全管理基线V1.0

标准说明：
1.标准中关于应用程序、操作系统、数据库、网络设备的标准内容属于所有系统通用标准；
2.SAAS服务标准内容适用于第三方提供的独立服务，且系统责任主体属于第三方单位；
3.公有云系统应先匹配通用标准，针对通用标准不适用的部分参照公有云安全补充标准内容加强安全防护。

标准类别	标准模块	标准内容	标准执行要求 内网系统	标准执行要求 外网系统	备注

天能信息系統安全管理基線

Tianneng Information System Security Management Baseline

天能信息系統安全管理基線 V1.0	Tianneng Information System Security Management Baseline V1.0
標準說明：	Standard Description:
1. 標準中關於應用程序、操作系統、數據庫、網絡設備的標準內容屬於所有系統通用標準；	1. The standard content regarding applications, operating systems, databases, and network equipment in this standard is a general standard applicable to all systems.
2. SAAS 服務標準內容適用於第三方提供的獨立服務，且系統責任主體屬於第三方單位；	2. SAAS service standards apply to independent services provided by third parties, where the system responsibility lies with the third party.
3. 公有雲系統應先匹配通用標準，針對通用標準不適用的部分參照公有雲安全補充標準內容加強安全防護。	3. Public cloud systems shall first comply with the general standards, and strengthen security protection for parts not covered by the general standards by referring to the public cloud security supplementary standards.
標準類別	Standard Category
標準模塊	Standard Module
標準內容	Standard Content
標準執行要求	Standard Implementation Requirements
備注	Remarks
內網系統	Intranet System
外網系統	Extranet System

案例 Case

天能網絡安全成果受到浙江省湖州市委網信辦 / 公安部門肯定

Tianneng's Cybersecurity Achievements Recognized by Zhejiang Province Huzhou Municipal Cyberspace Administration/Public Security Department

天能在 2025 年護網行動上取得的良好成績受到了浙江省湖州市委網信辦 / 公安部門肯定，並與湖州市委網信辦 / 公安部門探討了銀狐病毒事件案例及防範建議，分析網絡資產安全漏洞掃描現狀和未來的新變化，並建議增加 AI 模型分析、系統上線前用等保要求進行檢測、增加態勢感系統等舉措，確保系統和數據穩定、安全。

The good results achieved by Tianneng in the 2025 network protection exercise were recognized by the Zhejiang Province Huzhou Municipal Cyberspace Administration and Public Security Department. Discussions were held with the Huzhou Municipal Cyberspace Administration and Public Security Department on the Silver Fox virus case and prevention suggestions, analyzing the current situation and future trends of network asset security vulnerability scanning. Proposals were put forward to strengthen AI model analysis, conduct tests in accordance with classified protection requirements before system launch, and add situation awareness systems to ensure the stability and security of systems and data.

本集團與浙江省湖州市委網信辦及公安部門座談會現場

The Group Symposium Site with Zhejiang Province Huzhou Municipal Cyberspace Administration and Public Security Department

案例 Case

數據安全培訓

Data Security Training

天能針對相關部門的新老員工，定期開展信息安全培訓、應急演練，提升員工的信息安全專業意識與技能。依據人力部門統一安排，共完成 2 次新員工信息安全課程培訓。依據年度規劃及項目要求，完成 2 次集團全員信息安全培訓、2 次防範銀狐病毒 / 勒索事件專題案例講座、1 次釣魚防範演練。針對業務系統可能暴露的漏洞，上線了「網絡安全服務項目」，掃描各類系統漏洞並完成漏洞修復工作。

Tianneng regularly conducts information security training and emergency drills for new and old employees in relevant departments to enhance their professional information security awareness and skills. According to the unified arrangement of the human resources department, it completed 2 information security course trainings for new employees. According to the annual plan and project requirements, it completed 2 information security trainings for all Group employees, 2 special case lectures on preventing Silver Fox virus/ransomware incidents, and 1 phishing prevention drill. Targeting potential vulnerabilities exposed by business systems, it launched the "Network Security Service Project," scanning various system vulnerabilities and completing vulnerability remediation work.

信息安全意識培訓

Information Security Awareness Training

安全開發規範專題培訓

Special Training on Security Development Standards

踐行社會公益 Implementing Social Welfare Initiatives

天能堅持「共享，有愛」的方式，積極承擔「企業公民」的角色，以實際行動回報社會關心。深度聚焦鄉村經濟、生態、文化等多領域發展需求，憑借自身產業優勢與創新實踐，積極投身鄉村振興實踐，全力打造村企共建典範，並廣泛開展形式多樣的公益志願活動，以鄉村振興和社會貢獻為支點，以實際行動踐行企業社會公益，詮釋以感恩之心奉獻社會的初心使命，推動企業與社會的可持續發展同頻共振。2025 年，本集團公益慈善捐贈金額達人民幣 125.8 萬元。

Tianneng adheres to the principle of "Sharing, Caring," actively assumes the role of a "corporate citizen," and repays social care with practical actions. It deeply focuses on the development needs of rural economy, ecology, culture, and other fields. Leveraging its industrial advantages and innovative practices, it actively engages in rural revitalization practices, strives to create a model of village-enterprise co-construction, and extensively carries out various forms of public welfare and volunteer activities. Using rural revitalization and social contribution as leverage, it practices corporate social welfare with practical actions, interpreting the original intention and mission of contributing to society with gratitude, and promoting the synchronous resonance of sustainable development between the enterprise and society. In 2025, the Group's charitable donations amounted to RMB1.258 million.

鄉村振興 Rural Revitalization

天能牢記「根植人民，回饋社會」的理念，切實履行社會責任，以村企共建為基石，深度挖掘鄉村內生動力，發揮龍頭優勢帶動鄉村產業生態構建與模式創新，促進鄉村經濟、社會、生態的全面協調發展。集團堅持多措並舉，以產業佈局為依託，發揮「鏈主」作用促進區域經濟協同發展，拓寬就業渠道，助力縮小城鄉及區域間差距，全方位築牢鄉村發展的根基。

Tianneng keeps in mind the concept of "rooted in the people, giving back to society" and earnestly fulfills its social responsibilities. With village-enterprise co-construction as the cornerstone, it deeply taps into the endogenous driving force of rural areas, leverages its leading advantages to drive the construction of rural industrial ecology and model innovation, and promotes the comprehensive and coordinated development of rural economy, society, and ecology. The Group insists on multiple measures simultaneously, relying on industrial layout, plays the role of "chain leader" to promote the coordinated development of regional economies, broadens employment channels, helps narrow the gap between urban and rural areas and regions, and comprehensively consolidates the foundation for rural development.

案例 Case

模式創新，拓寬增收渠道
Model Innovation, Broadening Income Channels

天能不斷探索創新村企共建模式，為新川村民增收開闢新途徑。將現代股權基金模式引入鄉村振興，鼓勵村民以資金、土地、技術等形式入股「強村公司」，讓村民成為股東，共享鄉村發展紅利。並通過線上線下相結合的銷售模式，拓寬了農產品銷售渠道，提高了農產品附加值，增加了農民收入。此外，天能還利用自身品牌影響力和市場渠道，為鄉村旅遊、民宿等產業進行宣傳推廣，帶動了鄉村服務業的發展，進一步拓寬了村民增收渠道。截至目前，已解決本村及周邊村民就業 6,000 多名。

Tianneng continuously explores and innovates the village-enterprise co-construction model, opening up new ways for Xinchuan villagers to increase income. It introduces modern equity fund models into rural revitalization, encouraging villagers to invest in "strong village companies" in the form of capital, land, technology, etc., making villagers shareholders and sharing in rural development dividends. Through a combined online and offline sales model, it broadens agricultural product sales channels, increases the added value of agricultural products, and raises farmers' income. Additionally, Tianneng uses its brand influence and market channels to promote and advertise industries such as rural tourism and homestays, driving the development of rural service industries and further broadening channels for villagers to increase income. To date, it has provided employment for over 6,000 people from the village and surrounding areas.

2025 年 7 月 1 日，黨建聯建助力美麗鄉村建設大會在煤山鎮新鄉村舉行

On July 1, 2025, the Conference on Party Building and Joint Construction to Support the Construction of Beautiful Rural Areas was held in Xinxiang Village, Meishan Town.

案例 Case

「村企共建，新川模式」
"Village-Enterprise Co-construction, Xinchuan Model"

天能與新川村推廣「新川模式」，聯合發起「跨省聯建」行動，與貴州臺江臺盤村、安徽鳳陽小崗村等全國 32 個民族村建立對口幫扶，將新能源產業鏈延伸至中西部地區，帶動少數民族地區高質量就業。在河南、江蘇等地複製「村企共建」模式，輸出浙江「千萬工程」經驗，形成「東部示範、全國聯動」的共富網絡。

Tianneng promotes the "Xinchuan Model" in partnership with Xinchuan Village and jointly initiates an "Inter-provincial Alliance" action. It establishes one-to-one assistance with 32 ethnic villages across the country, including Taipan Village in Taijiang County, Guizhou Province, and Xiaogang Village in Fengyang County, Anhui Province, extending the new energy industry chain to the central and western regions and driving high-quality employment in ethnic minority areas. The "village-enterprise co-construction" model is replicated in Henan, Jiangsu, and other places, sharing the experience of Zhejiang's "Ten Million Project" and forming a common prosperity network characterized by "demonstration in the East, national linkage."

中國式鄉村現代化「新川模式」暨共同富裕「企業單元」建設案例論壇
Forum on the "Xinchuan Model" of Chinese-style Rural Modernization and the Construction of "Enterprise Units" for Common Prosperity

2025 年 6 月，集團走進臺盤鄉中心小學，開展六一兒童節捐贈活動，以實際行動踐行企業社會責任，助力鄉村教育發展。

In June 2025, the Group visited Taipan Township Central Primary School to conduct a donation event for International Children's Day, fulfilling our corporate social responsibility through concrete actions and supporting the development of rural education.

2025 年 9 月，長興縣首個全國科普月主場活動在新川村舉行，與天能文化展館、鄉村振興案例館共同組成三大核心展館。。

In September 2025, the inaugural National Science Popularization Month main event for Changxing County was held in Xinchuan Village, which, together with the Tianneng Culture Exhibition Hall and the Rural Revitalization Case Exhibition Hall, formed three core exhibition venues.

社區參與 Community Engagement

天能始終遵循「奉獻、友愛、互助、進步」的精神，以回報社會為使命，持續開展社區志願服務活動，堅持參與組織員工參與社會公益，努力實現本集團與社區共同發展的可持續目標。

Tianneng has always followed the spirit of "dedication, friendship, mutual assistance, and progress," with the mission of giving back to society. It continuously carries out community volunteer service activities, insists on organizing employees to participate in social welfare, and strives to achieve the sustainable goal of common development between the Group and the community.

案例 Case

天能公益基金
Tianneng Public Welfare Fund

天能成立以「傳遞陽光關愛，構建和諧社會」為宗旨的天能公益基金，號召員工廣泛投身「助夢貧困大學生」「好人有好報」等社會慈善公益事業，著力打造有責任、有溫度、有情懷的典範民企。

Tianneng established the Tianneng Public Welfare Fund with the purpose of "transmitting sunshine care and building a harmonious society," calling on employees to extensively participate in social charitable and public welfare causes such as "helping poor college students realize their dreams" and "good people have good rewards," striving to build a responsible, warm, and caring model private enterprise.

附錄：ESG 數據表和附注 Appendix: ESG Data Table and Notes

經濟績效 Economic Performanc

指標 Indicators	單位 Unit	2024	2025
營業收入 Operating Revenue	人民幣萬元 RMB 10,000	7,666,881	5,379,890
歸母淨利潤 Net Profit Attributable to	人民幣萬元 RMB 10,000	114,241	143,676
總資產 Total Assets	人民幣萬元 RMB 10,000	5,528,056	5,513,942
納稅總額 Total Taxes Paid	人民幣億元 RMB 100 million	36.9	38.24

環境績效 Environmental Performance

指標 Indicators	單位 Unit	2024	2025
環保投入 Environmental Protection Investment	人民幣萬元 RMB 10,000	-	5,334.00
總耗水量 Total Water Consumption	萬噸 10,000 Ton	906.31	722.82
廢氣 Waste Gas			
硫氧化物排放量 Sulfur Oxides (SOx) Emissions	噸 Ton	-	23.08
氮氧化物排放量 Nitrogen Oxides (NOx) Emissions	噸 Ton	-	59.24
懸浮粒子與顆粒物 (PM) 排放量 Suspended Particulates/Particulate Matter (PM) Emissions	噸 Ton	-	49.49
揮發性有機化合物（VOCs）排放量 Volatile Organic Compounds (VOCs) Emissions	噸 Ton	-	13.36
廢水 Wastewater			
化學需氧量（COD） Chemical Oxygen Demand (COD)	噸 Ton	-	70.74
總磷排放量 Total Phosphorus Emissions	噸 Ton	-	3.02
總氮排放量 Total Nitrogen Emissions	噸 Ton	-	14.28
氨氮排放量 Ammonia Nitrogen Emissions	噸 Ton	-	5.17

指標 Indicators	單位 Unit	2024	2025
固體廢棄物 Solid Waste			
有害廢棄物總量 Total Hazardous Waste	噸 Ton	-	190,379.46
有害廢棄物密度 Hazardous Waste Intensity	千克 / 人民幣萬元營收 kg / RMB 10,000 revenue	-	35.39
無害廢棄物總量 Total Non-Hazardous Waste	噸 Ton	-	69,693.19
無害廢棄物密度 Non-Hazardous Waste Intensity	千克 / 人民幣萬元營收 kg / RMB 10,000 revenue	-	12.95
一般固體廢物總量 Total General Solid Waste	噸 Ton	-	69,693.19
危險廢物合規處置量 Hazardous Waste Compliant Disposal Volume	噸 Ton	-	190,379.46
溫室氣體 Greenhouse Gases			
範圍一溫室氣體排放量 Scope 1 GHG Emissions	噸二氧化碳當量 Ton CO_2e	344,636	288,018.95
範圍二溫室氣體排放量 Scope 2 GHG Emissions	噸二氧化碳當量 Ton CO_2e	1,908,055	2,035,268.22
溫室氣體排放總量（範圍一 + 範圍二） Total GHG Emissions (Scope 1 + Scope 2)	噸二氧化碳當量 Ton CO_2e	2,252,691	2,323,287.17
溫室氣體排放強度（範圍一 + 範圍二） GHG Intensity (Scope 1 + Scope 2)	千克二氧化碳當量 / 人民幣萬元營收 kg CO_2e / Revenue in RMB 10,000	-	431.85
能源 Energy			
能源消耗總量 Total Energy Consumption	噸標準煤 Ton of standard coal	-	583,843.75
汽油消耗量 Gasoline Consumption	噸標準煤 Ton of standard coal	420.83	195.23
柴油消耗量 Diesel Consumption	噸標準煤 Ton of standard coal	1082.91	768.98
天然氣使用量 Natural Gas Consumption	噸標準煤 Ton of standard coal	73,121.75	70,647.37
外購電力使用量 Purchased Electricity Consumption	噸標準煤 Ton of standard coal	421,509.70	421,448.36
蒸汽消耗總量 Total Steam Consumption	噸標準煤 Ton of standard coal	-	66,556.10
清潔能源消耗量 Clean Energy Consumption	噸標準煤 Ton of standard coal	9,537.75	13,489.38
清潔能源電力消耗量佔總能耗比例 Proportion of clean energy power consumption in total energy consumption	%	-	2.31
能源消耗強度 Energy Consumption Intensity	千克標準煤 / 人民幣萬元營收 kg standard coal / Revenue in RMB 10,000	-	108.52
循環經濟 Greenhouse Gases			
生產物料回收率（鉛蓄電池事業部） Production Material Recovery Rate Lead-acid Battery Division	%	-	90
包裝材料回收率（鉛蓄電池事業部） Packaging Material Recovery Rate Lead-acid Battery Division	%	-	60

社會績效 Social Performance

指標 Indicators	單位 Unit	2024	2025
產品和服務安全與質量 Product & Service Safety and Quality			
客戶回饋回應率 Customer Feedback Response Rate	%	100	100
客戶投訴次數 Number of Customer Complaints	次 times	1,520	4,075
累計客戶服務次數 Cumulative Customer Service Interactions	次 times	100,775	96,772
客戶滿意度 Customer Satisfaction Rate	分 score	98.7	98.9
製成品包裝材料總量 Total Packaging Materials for Finished Goods	噸 Ton	26,400	26,400
職業健康與安全 Occupational Health and Safety			
工傷率 Injury Rate	%	-	0.30
百萬工時傷害率 Injury Rate per Million Hours Worked	%	-	1.21
因工傷損失工作日數 Work Days Lost Due to Work-related Injuries	日 days	-	8,100
員工工傷保險覆蓋率 Employee Work-related Injury Insurance Coverage Rate	%	-	100
工傷事故數量 Number of Work-related Injury Incidents	次 incidents	-	58
因工死亡人數 Number of Work-related Fatalities	人 People	0	0
職業病發生率 Occupational Disease Incidence Rate	%	0	0
安全培訓次數 Number of Safety Training Sessions	次 sessions	-	5,700
安全培訓時長 Safety Training Hours	小時 hours	-	429,070
人均安全培訓時長 Average Safety Training Hours per Employee	小時 hours	-	21.5
覆蓋員工 Employees Covered	人次 People-times	-	117,800

指標 Indicators	單位 Unit	2024	2025
科創數據 Injury RateScience, Technology & Innovation Data			
研發投入金額 R&D Investment Amount	萬元	203,321	201,313
研發投入金額佔營業收入比例 R&D Investment as % of Operating Revenue	%	2.65%	3.74%
發明專利申請新增數 New Invention Patent Applications	項 items	324	373
發明專利授權新增數 New Invention Patent Grants	項 items	124	167
新增專利申請 New Patent Applications	項 items	837	840
新增專利授權 New Patent Grants	項 items	490	599
有效專利總數 Total Valid Patents	項 items	3919	4,192
累計實用新型數量 Cumulative Utility Model Patents	項 items	2920	3,030
軟體著作權登記總數 Total Software Copyright Registrations	項 items	85	104
員工 Employees			
員工總數 Total Number of Employees	人 People	20,676	20,698
女性員工數量 Number of Female Employees	人 People	7,318	7,113
女性員工佔比 Percentage of Female Employees	%	35.39	34.37
男性員工數量 Number of Male Employees	人 People	13,358	13,585
男性員工佔比 Percentage of Male Employees	%	64.61	65.63
30 歲及以下員工人數 Number of Employees Aged 30 & Under	人 People	3,013	3,117
31-40 歲員工人數 Number of Employees Aged 31-40	人 People	8,252	7,858
41-50 歲員工人數 Number of Employees Aged 41-50	人 People	6,666	6,826
51 歲及以上員工人數 Number of Employees Aged 51 & Above	人 People	2,745	2,897

指標 Indicators	單位 Unit	2024	2025
兼職員工人數 Number of Part-time Employees	人 People	0	0
中國內地員工人數 Number of Employees in Mainland China	人 People	20,666	20,551
港澳臺地區員工人數 Number of Employees in Hong Kong, Macau & Taiwan Regions	人 People	2	2
其他地區員工人數 Number of Employees in Other Regions	人 People	8	145
員工總流失率 Total Employee Turnover Rate	%	28.08	19.53
女性員工流失率 Female Employee Turnover Rate	%	27.68	16.27
男性員工流失率 Male Employee Turnover Rate	%	28.23	20.61
30 歲及以下員工人數流失率 Turnover Rate for Employees Aged 30 & Under	%	36.36	26.28
31-40 歲員工人數流失率 Turnover Rate for Employees Aged 31-40	%	22.81	17.98
41-50 歲員工人數流失率 Turnover Rate for Employees Aged 41-50	%	23.79	14.38
51 歲及以上員工人數流失率 Turnover Rate for Employees Aged 51 & Above	%	23.96	13.80
全職員工流失率 Full-time Employee Turnover Rate	%	28.08	19.53
兼職員工流失率 Part-time Employee Turnover Rate	%	0.00	0.00
中國內地員工流失率 Employee Turnover Rate in Mainland China	%	28.09	19.51
港澳臺地區員工流失率 Employee Turnover Rate in Hong Kong, Macau & Taiwan	%	25.00	0.00
其他地區員工流失率 mployee Turnover Rate in Other Regions	%	20.00	25.00
員工培訓總時長 Total Employee Training Hours	小時 hours	-	525,873.98
人均培訓時長 Average Training Hours per Employee	小時 hours	-	25.42
人均培訓時長（線上） Average Online Training Hours per Employee	小時 hours	-	12.38
男性員工人均培訓時長（線上） Average Online Training Hours for Male Employees	小時 hours	-	11.44
女性員工人均培訓時長（線上） Average Online Training Hours for Female Employees	小時 hours	-	15.16
基層員工人均培訓時長（線上） Average Online Training Hours for Frontline Employees	小時 hours	-	10.42
中層員工人均培訓時長（線上） Average Online Training Hours for Middle Management	小時 hours	-	26.85
高級管理層員工人均培訓時長（線上） Average Online Training Hours for Senior Management	小時 hours	-	13.11
年度培訓支出金額 Annual Training Expenditure	人民幣萬元 RMB 10,000	-	394.50
員工培訓覆蓋率（線上） Employee Online Training Coverage Rate	%	-	47.41
男性員工培訓覆蓋率（線上） Male Employee Online Training Coverage Rate	%	-	54.37
女性員工培訓覆蓋率（線上） Female Employee Online Training Coverage Rate	%	-	34.41
基層員工培訓覆蓋率（線上） Frontline Employee Online Training Coverage Rate	%	-	43.96
中層員工培訓覆蓋率（線上） Middle Management Online Training Coverage Rate	%	-	100.00
高級管理層培訓覆蓋率（線上） Senior Management Online Training Coverage Rate	%	-	98.98
可持續供應鏈 Sustainable Supply Chain			
供應商總數 Total Number of Suppliers	家 suppliers	-	5,442
中國內地供應商數量 Number of Suppliers in Mainland China	家 suppliers	-	5,432
其他地區供應商數量 Number of Suppliers in Other Regions	家 suppliers	-	10
通過供應商準入審核的新增供應商數量 The number of new suppliers that have passed the supplier admission review.	家 suppliers	-	212
社區公益 Community & Public Welfare			
慈善捐贈投入金額 Charitable Donation Amount	人民幣萬元 RMB 10,000	-	125.80

治理績效 Governance Performance

指標 Indicators	單位 Unit	2024	2025
獨立董事數量 Number of Independent Directors	人 People	4	4
獨立董事佔比 Percentage of Independent Directors	%	44.44	44.44
女性董事數量 Number of Female Directors	人 People	1	1
女性董事佔比 Percentage of Female Directors	%	11.11	11.11
董事會成員數量 Total Number of Board Members	人 People	9	9
30-50 歲董事人數 Number of Directors Aged 30-50	人 People	1	1
50 歲以上董事人數 Number of Directors Aged 50 & Above	人 People	8	8
反商業賄賂與反貪污培訓次數 Number of Anti-Commercial Bribery & Anti-Corruption Training Sessions	次 sessions	-	42
反商業賄賂與反貪污培訓參與人次 Number of Participants in Anti-Commercial Bribery & Anti-Corruption Training	人次 People-times	-	11,900
反商業賄賂及反貪污培訓覆蓋的關鍵崗位及管理人員佔比 Percentage of Key Positions & Management Covered by Anti-Commercial Bribery	%	-	100

附錄：對標索引表 Appendix: Content Index Table

香港聯合交易所有限公司《環境、社會及管治報告守則》（附錄 C2）索引表

Hong Kong Exchanges and Clearing Limited *Environmental, Social and Governance Reporting Code* (Appendix C2) Index Table

環境 Environment			
主要範疇、層面、一般披露及關鍵績效指標 Aspects, General Disclosures and KPIs			章節 Section
層面 A1：排放物 Aspect A1: Emissions			
一般披露 General Disclosure		有關廢氣及溫室氣體排放、向水及土地的排污、有害及無害廢棄物的產生等的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	排放物管理 Emissions Management
關鍵績效指標 Key Performance Indicators	A1.1	排放物種類及相關排放數據。 Types of emissions and related emission data.	排放物管理 Emissions Management
	A1.3	所產生有害廢棄物總量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。 Total hazardous waste produced (in tonnes) and, where applicable, intensity (e.g., per unit of production, per facility).	排放物管理 Emissions Management
	A1.4	所產生無害廢棄物總量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。 Total non-hazardous waste produced (in tonnes) and, where applicable, intensity (e.g., per unit of production, per facility).	排放物管理 Emissions Management
	A1.5	描述所訂立的排放量目標及為達到這些目標所採取的步驟。 Total non-hazardous waste produced (in tonnes) and, where applicable, intensity (e.g., per unit of production, per facility).	排放物管理 Emissions Management
	A1.6	描述處理有害及無害廢棄物的方法，及描述所訂立的減廢目標及為達到這些目標所採取的步驟。 Description of how hazardous and non-hazardous wastes are handled, and a description of waste reduction targets set and steps taken to achieve them.	排放物管理 Emissions Management

環境 Environment

主要範疇、層面、一般披露及關鍵績效指標 Aspects, General Disclosures and KPIs			章節 Section
層面 A2：資源使用 Aspect A2: Use of Resources			
一般披露 General Disclosure		有效使用資源（包括能源、水及其他原材料）的政策。 the policies; andPolicy on the efficient use of resources, including energy, water and other raw materials.	資源節約與能源利用 Resource Conservation and Energy Utilization
關鍵績效指標 Key Performance Indicators	A2.1	按類型劃分的直接及 / 或間接能源（如電、氣或油）總耗量（以千個千瓦時計算）及密度（如以每產量單位、每項設施計算）。 Direct and/or indirect energy consumption by type (e.g., electricity, gas, or oil) in total (kWh in thousands) and intensity (e.g., per unit of production, per facility).	資源節約與能源利用 Resource Conservation and Energy Utilization
	A2.2	總耗水量及密度（如以每產量單位、每項設施計算）。 Total water consumption and intensity (e.g., per unit of production, per facility).	資源節約與能源利用 Resource Conservation and Energy Utilization
	A2.3	描述所訂立的能源使用效益目標及為達到這些目標所採取的步驟。 Description of energy use efficiency targets set and steps taken to achieve them.	資源節約與能源利用 Resource Conservation and Energy Utilization
	A2.4	描述求取適用水源上可有任何問題，以及所訂立的用水效益目標及為達到這些目標所採取的步驟。 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency targets set and steps taken to achieve them.	資源節約與能源利用 Resource Conservation and Energy Utilization
	A2.5	制成品所用包裝材料的總量（以噸計算）及（如適用）每生產單位佔量。 Total packaging materials used for finished products (in tonnes) and, if applicable, per unit of production.	資源節約與能源利用 Resource Conservation and Energy Utilization
層面 A3：環境及天然資源 Aspect A3: Environment and Natural Resources			
一般披露 General Disclosure		減低發行人對環境及天然資源造成重大影響的政策。 Policy on minimizing the issuer's significant impact on the environment and natural resources.	環境合規管理、生態系統和生物多樣性保護 Environmental Compliance Management, Ecosystem and Biodiversity Conservation
關鍵績效指標 Key Performance Indicators	A3.1	描述業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動。 Description of the significant impacts of business activities on the environment and natural resources and the actions taken to manage them.	環境合規管理、生態系統與生物多樣性保護 Environmental Compliance Management, Ecosystem and Biodiversity Conservation

社會 Social

主要範疇、層面、一般披露及關鍵績效指標 Aspects, General Disclosures and KPIs			章節 Section
層面 B1：僱傭 Aspect B1: Employment			
一般披露 General Disclosure		有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, leave, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	合規僱傭 Compliance in Employment
關鍵績效指標 Key Performance Indicators	B1.1	按性別、僱傭類型、年齡組別及地區劃分的僱員總數。 Total workforce by gender, employment type, age group and geographical region.	合規僱傭 Compliance in Employment
	B1.2	按性別、年齡組別及地區劃分的僱員流失比率。 Employee turnover rate by gender, age group and geographical region.	合規僱傭 Compliance in Employment
層面 B2：健康與安全 Aspect B2: Health and Safety			
一般披露 General Disclosure		有關提供安全工作環境及保障僱員避免職業性危害的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	職業健康與安全 Occupational Health and Safety
關鍵績效指標 Key Performance Indicators	B2.1	過去三年（包括滙報年度）每年因工亡故的人數及比率。 Number and rate of work-related fatalities for each of the past three years including the reporting year.	職業健康與安全 Occupational Health and Safety
	B2.2	因工傷損失工作日數。 Workdays lost due to work injury.	職業健康與安全 Occupational Health and Safety
	B2.3	描述所採納的職業健康與安全措施，以及相關執行及監察方法。 Description of occupational health and safety measures adopted, and how they are implemented and monitored.	職業健康與安全 Occupational Health and Safety
層面 B3：發展及培訓 Aspect B3: Development and Training			
一般披露 General Disclosure		有關提升僱員履行工作職責的知識及技能的政策。描述培訓活動。 Policy on improving employees' knowledge and skills for discharging their job responsibilities. Description of training activities.	員工培訓與發展 Employee Training and Development
關鍵績效指標 Key Performance Indicators	B3.1	按性別及僱員類別（如高級管理層、中級管理層等）劃分的受訓僱員百分比。 Percentage of employees trained by gender and employee category (e.g., senior management, middle management).	員工培訓與發展 Employee Training and Development
	B3.2	按性別及僱員類別劃分，每名僱員完成受訓的平均時數。 Average training hours completed per employee by gender and employee category.	員工培訓與發展 Employee Training and Development

社會 Social

層面 B4：勞工準則 Aspect B4: Labour Standards

一般披露 General Disclosure		有關防止童工或強制勞工的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child labour and forced labour.	勞工權益保障 Labour Rights Protection
關鍵績效指標 Key Performance Indicators	B4.1	描述檢討招聘慣例的措施以避免童工及強制勞工。 Description of measures to review employment practices to avoid child labour and forced labour.	勞工權益保障 Labour Rights Protection
	B4.2	描述在發現違規情況時消除有關情況所採取的步驟。 Description of steps taken to eliminate such practices when discovered.	勞工權益保障 Labour Rights Protection

層面 B5：供應鏈管理 Aspect B5: Supply Chain Management

一般披露 General Disclosure		管理供應鏈的環境及社會風險政策。 Policy on managing environmental and social risks of the supply chain.	可持續供應鏈 Sustainable Supply Chain
關鍵績效指標 Key Performance Indicators	B5.1	按地區劃分的供應商數目。 Number of suppliers by geographical region.	可持續供應鏈 Sustainable Supply Chain
	B5.2	描述有關聘用供應商的慣例，向其執行有關慣例的供應商數目、以及有關慣例的執行及監察方法。 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	可持續供應鏈 Sustainable Supply Chain
	B5.3	描述有關識別供應鏈每個環節的環境及社會風險的慣例，以及相關執行及監察方法。 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	可持續供應鏈 Sustainable Supply Chain
	B5.4	描述在揀選供應商時促使多用環保產品及服務的慣例，以及相關執行及監察方法。 Description of practices used to promote the use of environmentally friendly products and services when selecting suppliers, and how they are implemented and monitored.	可持續供應鏈 Sustainable Supply Chain

層面 B6：產品責任 Aspect B6: Product Responsibility

一般披露 General Disclosure		有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided, and remedial measures.	產品質量管理 Product Quality Management
關鍵績效指標 Key Performance Indicators	B6.1	已售或已運送產品總數中因安全與健康理由而須回收的百分比。 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	產品質量管理 Product Quality Management
	B6.2	接獲關於產品及服務的投訴數目以及應對方法。 Number of complaints received regarding products and services and how they are addressed.	客戶服務保障 Customer Service Assurance
	B6.3	描述與維護及保障知識產權有關的慣例。 Description of practices relating to maintaining and protecting intellectual property rights.	客戶服務保障 Customer Service Assurance
	B6.4	描述質量檢定過程及產品回收程序。 Description of quality assurance processes and product recall procedures.	產品質量管理 Product Quality Management
	B6.5	描述消費者資料保障及私隱政策，以及相關執行及監察方法。 Description of consumer data protection and privacy policies, and how they are implemented and monitored.	信息安全與私隱保護 Information Security and Privacy Protection

層面 B7：反貪污 Aspect B7: Anti-corruption

一般披露 General Disclosure		有關防止賄賂、勒索、欺詐及洗黑錢的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	合規管理架構、商業道德與反貪污 Compliance Management Framework, Business Ethics and Anti-corruption
關鍵績效指標 Key Performance Indicators	B7.1	於匯報期內對發行人或其僱員提出並已審結的貪污訴訟案件的數目及訴訟結果。 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	商業道德與反貪污 Business Ethics and Anti-corruption
	B7.2	描述防範措施及舉報程序，以及相關執行及監察方法。 Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	舉報製度 Whistleblowing System
	B7.3	描述向董事及員工提供的反貪污培訓。 Description of anti-corruption training provided to directors and staff.	商業道德與反貪污 Business Ethics and Anti-corruption

層面 B8：社區投資 Aspect B8: Community Investment

一般披露 General Disclosure		有關以社區參與來了解營運所在社區需要和確保其業務活動會考慮社區利益的政策。 Policy on community engagement to understand the needs of the communities where the issuer operates and to ensure its business activities consider community interests.	鄉村振興、社區參與 Rural Revitalization, Community Engagement
關鍵績效指標 Key Performance Indicators	B8.1	專注貢獻範疇（如教育、環境事宜、勞工需求、健康、文化、體育）。 Focus areas of contribution (e.g., education, environmental concerns, labour needs, health, culture, sports).	鄉村振興、社區參與 Rural Revitalization, Community Engagement
	B8.2	在專注範疇所動用資源（如金錢或時間）。 Resources used in the focus areas (e.g., money or time).	鄉村振興、社區參與 Rural Revitalization, Community Engagement

D 部分：氣候相關披露 Part D: Climate-related Disclosures

披露指標 Disclosure indicators	章節 Section
管治 Governance	
董事會及管理層在氣候相關風險管理中的角色和作用 The role of the board and management in climate-related risks and management.	應對氣候變化 Addressing Climate Change
策略 Strategy	
氣候相關風險和機遇 Climate-related risks and opportunities	應對氣候變化 Addressing Climate Change
業務模式和價值鏈 Business model and value chain	應對氣候變化 Addressing Climate Change
策略和決策 Strategy and decision-making	應對氣候變化 Addressing Climate Change
財務狀況、財務表現及現金流量 Financial position, financial performance, and cash flow	應對氣候變化 Addressing Climate Change
氣候韌性 Climate resilience	應對氣候變化 Addressing Climate Change
風險管理 Risk Management	
氣候相關風險識別與評估流程 Process for identifying and assessing climate-related risks	應對氣候變化 Addressing Climate Change
氣候相關風險管理流程 Process for managing climate-related risks	應對氣候變化 Addressing Climate Change
指標和目標 Metrics and Targets	
溫室氣體排放量 Greenhouse gas emissions	應對氣候變化 Addressing Climate Change
氣候相關目標及進展 Climate-related targets and progress	應對氣候變化 Addressing Climate Change

讀者反饋表 Reader Feedback Form

尊敬的讀者：
您好！感謝您閱讀《天能動力國際有限公司 2025 年度環境、社會與管治（ESG）報告》，我們在此誠摯地邀請您對本報告提出寶貴的意見和建議，以幫助改善我們的工作。

針對下列問題，請在適當處勾選您的選擇：

Dear Reader,
Thank you for reading the *Tianneng Power International Co., Ltd. 2025 Environmental, Social and Governance (ESG) Report*. We sincerely invite you to provide valuable comments and suggestions to help us improve our work.

Please tick the appropriate box for the following questions

選項 Question	打分 Rating
1. 您對本報告的總體滿意度評價 What is your overall satisfaction with this report?	□非常差 Very Poor □較差 Poor □一般 Average □較好 Good □非常好 report
2. 本報告完整地回應、披露了重要性議題 Does this report completely respond to and disclose material issues?	□非常差 Very Poor □較差 Poor □一般 Average □較好 Good □非常好 report
3. 本報告披露的信息及資料清晰、準確、完整 Is the information and data disclosed in this report clear, accurate, and complete?	□非常差 Very Poor □較差 Poor □一般 Average □較好 Good □非常好 report
4. 本報告全面、準確地反映了中天能對社會與環境的重大影響 Does this report comprehensively and accurately reflect Tianneng's significant impacts on society and the environment?	□非常差 Very Poor □較差 Poor □一般 Average □較好 Good □非常好 report
5. 本報告的邏輯主線、語言文字、版式設計條理清晰、可讀性強 Is the report's logical flow, language, text, and layout design clear and readable?	□非常差 Very Poor □較差 Poor □一般 Average □較好 Good □非常好 report

請您對以下問題作出簡要回答

1. 在本報告披露的內容中，您最關心或最滿意的部分有哪些？

Please provide brief answers to the following questions

What parts of the content disclosed in this report are you most concerned about or satisfied with?

2. 本報告是否存在您所關注卻尚未披露的內容？

Is there any content that you are concerned about but has not been disclosed in this report?

3. 針對本報告，您是否有其他意見或建議？

3.Do you have any other comments or suggestions regarding this report?

您可以通過郵寄、電子郵件或傳真的方式對問卷進行回饋，亦可直接來電說明。我們將充分考慮您的意見和建議。

You can provide feedback on this questionnaire by mail, email, or fax, or you may call us directly. We will give full consideration to your comments and suggestions.

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