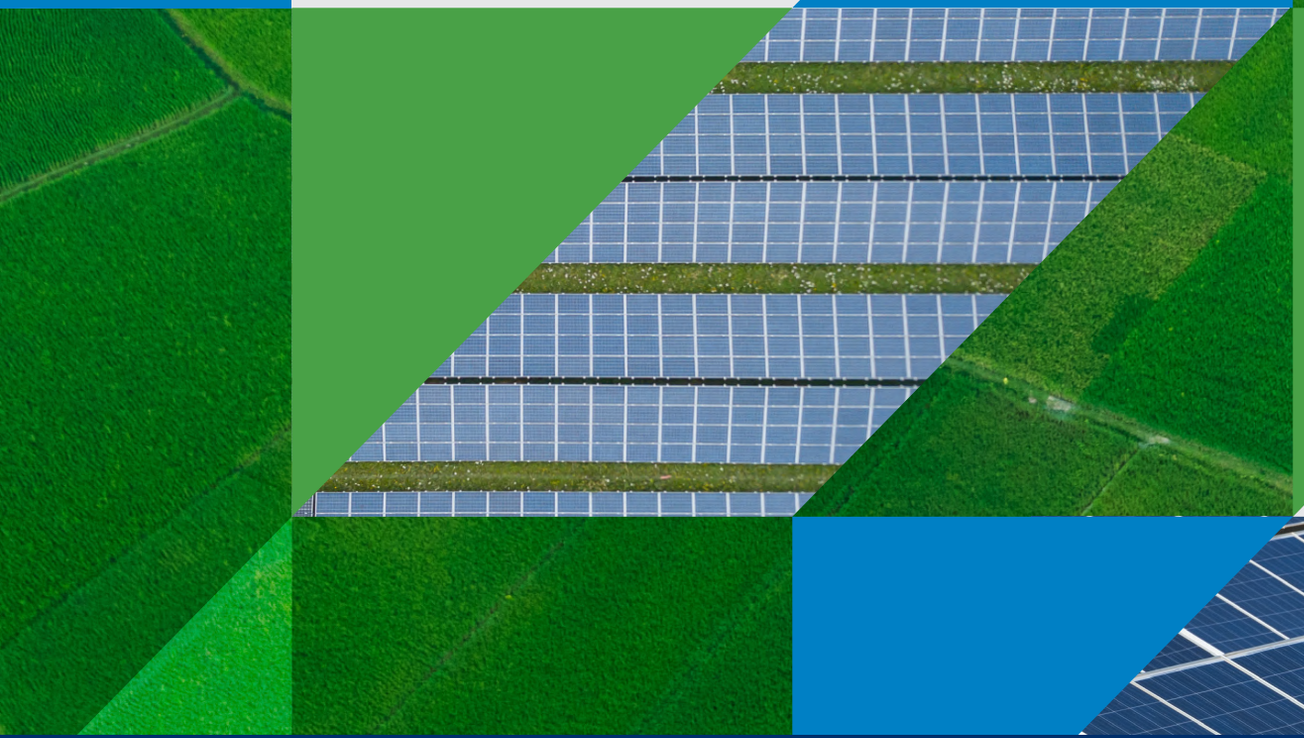
2024 SUSTAINABILITY REPORT



HDRE

HD Renewable Energy Co., Ltd.

SUSTAINABILITY REPORT

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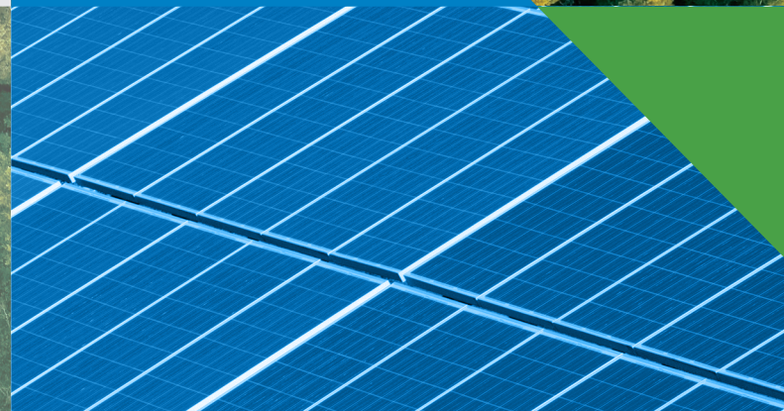


About this Report GRI 2-14

HD Renewable Energy, as a company dedicated to providing sustainable development solutions, leads by example in valuing and supporting sustainability. For four consecutive years, we have proactively published sustainability reports, actively engaging with stakeholders. Through the disclosure of information in these reports, we continue to strengthen our internal sustainability management and move toward a sustainable future.

Principles in Preparation GRI 1

This report discloses the management policy and performance of HD Renewable Energy Co., Ltd. (referred to as “HDRE”) in the main aspects of governance, economy, society and environment, etc. This report is made in accordance with GRI Standards 2021, Task Force on Climate-Related Financial Disclosures (TCFD) , Taskforce on Nature-related Financial Disclosures(TNFD), and Sustainability Accounting Standards Board (SASB).

Scope GRI 2-1 GRI 2-2

This report primarily covers business operations and offices of HD Renewable Energy Co., Ltd. (the parent company) in Taiwan. To provide a more comprehensive overview of the company's sustainability performance, the report also includes information from certain subsidiaries—such as Star Charger Co., Ltd., Star Energy Storage Solutions Co., Ltd., Star Trade Co., Ltd., Star Aquaculture Co., Ltd., and HB O&M Co., Ltd.—as well as selected overseas sites in countries such as Japan and Australia. The scope of disclosure for each entity or location is specified in the relevant sections of the report.

Period GRI 2-3

The Chinese report and English summary report are released annually and are available through enquiring and downloading from the company's sustainability website.

Report Period: January 1, 2024 to December 31, 2024

This edition: August 2025

Next edition: August 2026

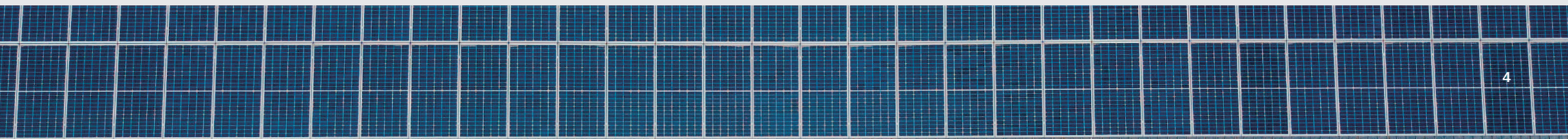
In addition, ensure comparability of information, certain sections also include disclosures of subsidiaries and overseas locations, which are clearly indicated within this report.

Management Method GRI 3

The preparation of this report follows a rigorous process consisting of the following steps:

01	Understanding the Organizational Context and Stakeholder Engagement	The company engages key stakeholders through surveys and dialogue to identify sustainability issues of concern. At the same time, it takes into account the organization's operational activities, value chain, sustainability background, and industry characteristics.
02	Identifying Actual and Potential Impacts	Based on the organization's operations and value chain, the company identifies actual and potential positive and negative impacts on the economy, environment, and people (including human rights), in accordance with the GRI 3: Material Topics standard and the double materiality principle proposed in the EU ESRS framework.
03	Assessing Impact Significance and Determining Material Topics	The significance of each impact is assessed by evaluating both stakeholder concerns and the level of impact on the company. Material topics for disclosure are determined based on the prioritization of significant impacts, considering their relevance to both business operations and stakeholder interests.
04	Report Compilation	The Sustainability Development Office compiles relevant information and prepares the report in accordance with the reporting principles outlined in the GRI Standards 2021, including: (1)Accuracy (2)Balance (3)Clarity (4)Comparability (5)Completeness (6)Sustainability Context (7)Timeliness (8)Verifiability
05	Report Review and Assurance	The report undergoes the following review process to ensure accuracy and completeness: (1)Data accuracy is confirmed by responsible departments (2)The Sustainability Development Office and the Chairman review, finalize, and approve the report for disclosure (3)A third-party assurance provider verifies the data (4)The final version is submitted to the Board of Directors for confirmation

HDRE conducts materiality assessments annually to monitor changes in stakeholder concerns and to effectively manage internal and external impacts and challenges.



Quality GRI 2-5

• External Assurance

To enhance the reliability and credibility of the information disclosed in this report, HDRE commissioned Ernst & Young (EY) Taiwan, an independent and credible accounting firm, to perform Limited Assurance on selected sustainability performance information,.It is in accordance with GRI Standards and the provision of "Assurance Case of Non-historical Financial Information Audited or Reviewed" of TWSAE 3000 standard.

Relevant results have been fully communicated with the governance unit upon completion of the assurance process. Please refer to the third-party assurance statement in Appendix 6 of this report.

• Data Quality Management

Information disclosed in this report — including financial data, quality, occupational safety and health, environmental and energy management, and greenhouse gas emissions — has been verified by an independent third party.

Financial Data	KPMG
Quality Management System ISO 9001	BSI
Occupational Safety and Health Management System ISO 45001	BSI
Greenhouse Gases ISO 14064-1	BSI
Environmental Management System ISO 14001	BSI
The third party certificate	

• Contact Information GRI 2-3

Should you have any questions or feedback regarding this report, please contact us:

HD Renewable Energy Co., Ltd.	
Unit	Sustainable Development Office
TEL	+886-2-2832-8057
Mailbox	hd.esg@hdrenewables.com
Address	5F, No. 35, Dexing W. Rd., Shilin Dist., Taipei City
Company Website	https://www.hdrenewables.com/

For other sustainability information, please refer to the following sources:

HDRE Website | HDRE Facebook | HDRE Instagram | HDRE YouTube

Message from the management team GRI 2-22

Message from the Chairman

In 2024, the impacts of global climate change continued to intensify. According to the World Meteorological Organization, global average temperatures exceeded 1.5° C above pre-industrial levels for the first time this year, signifying that climate risks to the environment and human life have become a daily reality. The formal launch of the EU's Carbon Border Adjustment Mechanism (CBAM) has also prompted enterprises to rethink their roles and responsibilities in sustainable transformation.

As a member of the green energy industry, HD Renewable Energy has always adhered to the principle of "balancing development with ecology, achieving mutual prosperity between enterprise and society," progressing steadily. This year, we continued to promote corporate sustainability governance, following international initiatives and implementing the Task Force on Climate-related Financial Disclosures (TCFD) and Task Force on Nature-related Financial Disclosures (TNFD) frameworks. Starting from risk management, we have constructed a more transparent and responsible business system. Meanwhile, we continue collaborating with supply chain partners to implement green procurement and sustainability principles, gradually extending our influence upstream and downstream to build a more resilient sustainable value chain.

In terms of corporate social responsibility, we have continued our long-term support for the "Formosa 3D" extending energy education to more rural areas and deepening the spirit of sustainability. HD Renewable Energy's sustainability governance and social participation have received international recognition. This year, we were not only awarded the "APEA Excellence in Corporate Leadership Award" by the Asia Pacific Enterprise Awards but also received dual honors in "Green Leadership" and "Corporate Sustainability Reporting" from the AREA Asia Responsible Enterprise Awards.

We also continue to monitor international energy transition trends and expand our strategic footprint across the Asia-Pacific region. In Australia, we established the ZEBRE platform in a joint venture with ZEN Energy to invest in renewable energy and energy storage assets. In Japan, we have established partnerships with Tokyu Land Corporation, Mitsubishi Electric, and other partners to jointly explore implementation models for smart energy applications. Through cross-border experience exchange and practice, we hope to contribute green energy solutions to local communities while showcasing the capabilities of Taiwanese enterprises to a wider audience.

Sustainability is not a sprint but a long-term journey toward the future. HD Renewable Energy will continue to uphold the spirit of integrity, professionalism, and innovation, working hand-in-hand with all stakeholders to build a future of mutual benefit, shared prosperity, and co-prosperity.

CHAIRMAN

謝源一

Message from the management team GRI 2-22

Message from the President

HD Renewable Energy positions itself as a smart power company at its core, providing carbon reduction solutions spanning power generation, energy storage, and electricity sales, driving the realization of our vision "Smarter Energy, Accessible Green" and helping businesses and society transition toward a net-zero future.

In 2024, facing the dual challenges of climate change and energy structure adjustment, we continued to strengthen our technological R&D and product integration capabilities while steadily expanding our Asia-Pacific market presence. In Australia, we established the ZEBRE asset platform with local energy company ZEN Energy, planning to invest in large-scale green power and energy storage projects. We are committed to supporting local energy transition with Taiwan's independently developed solar-storage-charging technology, aiming to build an energy system with regional resilience and renewable energy supply capabilities. In the Japanese market, we focused on smart energy applications and energy storage, continuously promoting smart power trading technology, enhancing visibility and cooperation opportunities in local markets, and launching charging station construction plans to expand local renewable energy infrastructure through concrete actions.

To help corporate users effectively achieve sustainable transformation, HD Renewable Energy continues to deepen green electricity wheeling services, striving to lower the barriers to green electricity usage through technological and institutional innovation. By the end of 2024, we had cumulatively signed green electricity wheeling contracts for 16.1 billion kWh, with wheeling locations exceeding 2,084 sites, helping enterprises generate over 99,392 renewable energy certificates, concretely supporting enterprises in achieving RE100 and net-zero emissions goals.

Sustainable management comes not only from service and product innovation but is also rooted in governance and responsibility implementation. We continue to promote supply chain partners to sign the "Supplier Code of Conduct," implement green procurement policies, and strengthen environmental assessment and ecological conservation actions during site operations. In Taiwan, we optimize site management processes with the concept of "Eco-Social-Economic Harmony," striving to minimize landscape disturbance during construction while balancing regional development and environmental protection.

Facing the long-term challenges of energy transition, HD Renewable Energy will continue to strengthen core technologies, optimize service processes, and embed sustainability into every product and project. In the future, we will continue to monitor market trends and user needs, refining the flexibility and application scenarios of smart power systems to help more enterprises move more steadily and further along the path of energy transition.

CH1 Sustainable Communication, Dialogue and Engagement

Core Vision and Commitment

HDRE, an international smart power company, upholds the brand philosophy of “Smarter Energy, Accessible Green” and is dedicated to advancing the widespread adoption of renewable energy. Our vision, “Green Energy for Every Home, Carbon Neutrality for Every Household,” drives us to continually innovate and establish a comprehensive business ecosystem that spans power generation, energy storage, and electricity retailing. By integrating the AI Smart Energy IoT Platform, we provide integrated green energy solutions to meet rapidly growing market demand.

HD Renewable Energy Group has built a complete green energy value chain. Its subsidiaries include Star Trade Co., Ltd. (green power consultancy and energy trading), Star Charger Co., Ltd. (EV charging solutions), Star Energy Storage Solutions Co., Ltd. (energy aggregation), Star Aquaculture Co., Ltd. (aquaculture under solar-fishery symbiosis), and HB O&M Co., Ltd. (operation and maintenance services). Guided by our core values of professionalism, innovation, passion, and transparency, we are committed to advancing the full lifecycle of green technology—from development, EPC, and R&D to operations, maintenance, and smart monitoring. In all that we do, we strive to minimize our ecological impact, uphold the highest standards of environmental health and safety, and contribute to the sustainable development of our company and society.

As the world moves toward the collective goal of net zero carbon emissions by 2050, HDRE will continue to innovate in both technology and business models. Our mission is to ensure that green electricity becomes more stable, smarter, and more accessible—contributing to Taiwan’s 2050 Net Zero Transformation and to the global pursuit of a sustainable energy future.

Overview of Sustainability Performance in 2024

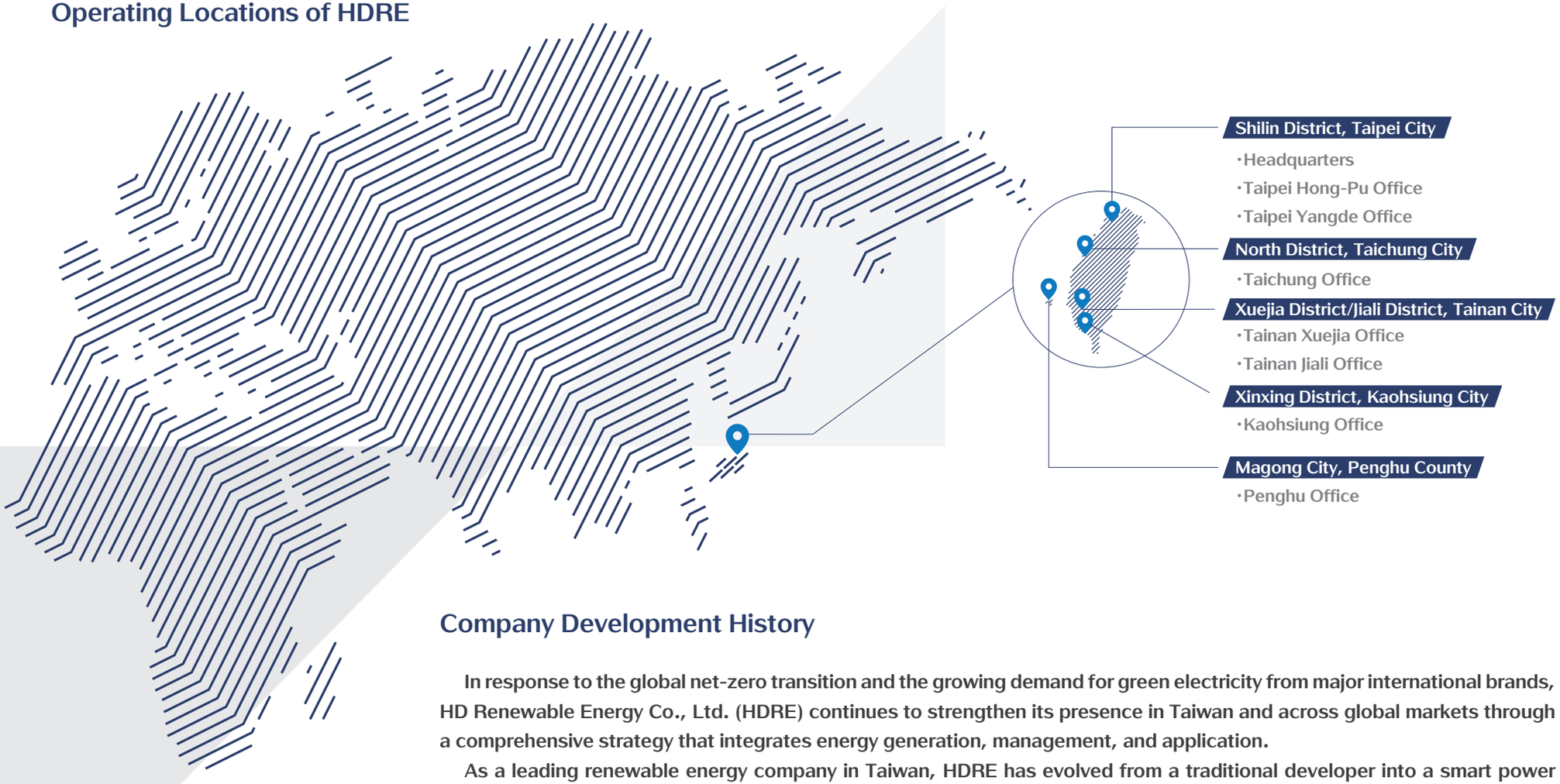
01	In 2024, HD Renewable Energy's cumulative revenue surpassed NT$10 billion for the first time, reaching NT$10.125 billion, representing a remarkable year-on-year growth of 73%.
02	Achieved ISO 27001:2022 Information Security Management System Certification, strengthening information system protection and advancing both smart energy and sustainable operations.
03	International recognition for sustainability achievements — Honored with Asia Responsible Enterprise Awards (AREA) including Green Leadership Award, Corporate Sustainability Reporting Award, and the Responsible Business Leadership Award.
04	Local sustainability recognition — Awarded TCSA Corporate Sustainability Reporting Awards (Silver Award), Taiwan’s Excellent Sustainable Companies Award, TAISE Net Zero Label – Green Level Certification, and obtained ISO 14064-1:2018 Greenhouse Gas Inventory Verification.
05	Biodiversity conservation — Established a Biodiversity Policy in accordance with the Taskforce on Nature-related Financial Disclosures (TNFD) framework.
06	Excellence in O&M technology — Subsidiary HB O&M Co., Ltd. received TÜV NORD’s highest-level AAA O&M Certification.

1.1 About HD Renewable Energy (HDRE) GRI 2-1

1.1.1 Introduction of HDRE

Full Name of Company	HD Renewable Energy Co., Ltd.
Stock Symbol (TWSE)	6,873
Number of Official Employees	385
Capital	NTD 1,171,552,060
Ordinary Shares Outstanding	117,155,206 shares
Date of Establishment	May 16, 2016
Chairman	Edward Hsieh
President	Jason Chou
Services	Development and construction of electrical power, power station asset management, smart power services
Location of Headquarters	5F, No. 35, Dexing W. Rd., Shilin Dist., Taipei City
Company Website	https://www.hdrenewables.com/

Operating Locations of HDRE



Company Development History

In response to the global net-zero transition and the growing demand for green electricity from major international brands, HD Renewable Energy Co., Ltd. (HDRE) continues to strengthen its presence in Taiwan and across global markets through a comprehensive strategy that integrates energy generation, management, and application.

As a leading renewable energy company in Taiwan, HDRE has evolved from a traditional developer into a smart power enterprise. By continuously enhancing its Smart Energy IoT Platform and leveraging AI algorithms to analyze energy generation and consumption patterns, HDRE enables more efficient power allocation and intelligent energy management.

In 2024, HDRE further expanded into the Australian and Japanese markets, establishing strategic partnerships with leading global companies. Through diversified wholesale and retail electricity operations, the Company has deepened its participation in energy trading, supporting both Taiwan’ s and the global pursuit of net-zero emissions.

HDRE's Key Milestones

Foundation and Initial Development

2016

- HD Renewable Energy Co., Ltd. was founded, marking the beginning of a new chapter in Taiwan’s green energy development.

2018

- Completed the first floating solar photovoltaic system(4MW), demonstrating technical leadership.
- Signed an MOU with SHIN KONG CHAO FENG CO., LTD., securing development rights for 375 hectares of land at Chao Feng Ranch to plan Taiwan's largest single-site solar PV project (400MW).
- Established HB O&M Co., Ltd. to expand maintenance and operations capabilities and strengthen vertical integration in the solar industry.

2019

- Pioneered the fishery-solar symbiosis model by establishing a dedicated aquaculture subsidiary, integrating renewable energy with sustainable fishery operations.

Business Diversification

2020

- Formed Star Power Energy Corporation as a joint venture with Taiwan Life Insurance Co., Ltd., TransGlobe Life Insurance Inc, and AcBel Polytech Inc to expand generation asset scale.
- Established Star Trade Co., Ltd. to lay the foundation for the green power wheeling business.

2021

- Star Trade Co., Ltd. obtained an electricity license issued by the Ministry of Economic Affairs, officially entering the power retail market.
- Signed green power wheeling contracts with corporate clients such as Taiwan Mobile and E.SUN Bank.
- Established Star Charger Co., Ltd. to enter the rapidly growing EV charging infrastructure market.
- Approved for public issuance and listing on the Taipei Exchange (TPEx) Emerging Market, enhancing visibility and financing capacity.

Transformation and Expansion

2022

- Formed Aqua Star Energy Corporation with three major insurance groups to scale up fishery-solar symbiosis projects and promote industry sustainability.
- Established the HDRE Intelligence Center at its Taipei headquarters to centralize management and enable smart energy dispatching.
- The Board of Directors approved the stock listing application and completed a capital increase of 15 million shares to strengthen financial structure and working capital.
- Published the first Corporate Sustainability Report, reinforcing the company's commitment to transparency and ESG governance.
- Founded Star Aquaculture Co., Ltd. to develop a “National Taiwan Fishery Team” and promote ecological aquaculture in fishery-energy integration.
- Launched the Smart Energy IoT Platform, using AI technology to optimize energy supply-demand management and enhance client value.
- Ri Yun Green Energy Co., Ltd. secured a syndicated loan of NT$2.089 billion to support development of the Qigu solar project in Tainan.
- Passed the listing review for the TWSE Innovation Board, becoming the first energy company approved to list on the board with a market value of NT$8.5 billion.

Internationalization and Smart Transformation

2023

- Listed on the Taiwan Stock Exchange Innovation Board.
- Established Star Energy Storage Co., Ltd., a joint venture with four institutions, accelerating commercialization of energy storage solutions.
- Acquired BESEYE CLOUD SECURITY CO., LTD. to integrate AI security technology into the Smart Energy IoT Platform, advancing toward the "smart power company" vision.
- Sungrounder Co., Ltd. completed a NT$4.1 billion syndicated loan with nine participating banks, reflecting strong financial sector confidence.
- Star Charger Co., Ltd. won the Taiwan Railways Administration's Public EV Charging Station Operation Lease Project for eastern Taiwan, completing a nationwide EV charging network.
- Formed Fubon Energy with Fubon Group to jointly develop 700MW of solar and energy storage projects, expanding market reach.

2024

- Officially reclassified to general board listing and included as a constituent stock of the MSCI Global Small Cap Index, becoming the first company in history to apply for transfer from the innovation board to the general board listing.
- Secured a 73MW long-term decarbonization energy storage contract in Japan, becoming the first Taiwanese firm to enter Japan's storage market.
- Signed an investment term sheet with the power group of San Miguel Corporation to develop a 1GW capacity pipeline in the Philippines, advancing Southeast Asia expansion.
- Deepened cooperation with ZEN Energy in Australia by acquiring a 9.7% equity stake and co-founding ZEBRE Pty Ltd (BESS platform), targeting 1.4GW of renewable capacity.
- Signed green power contracts with ASE Technology Holding, Cathay Life Insurance, and MediaTek to support corporate decarbonization goals.
- HB O&M Co., Ltd. received TÜV NORD Classic AAA Certification for O&M Management Service, validating its technical excellence.
- Received dual honors at the Asia Responsible Enterprise Awards (AREA) for Green Leadership and Sustainability Reporting, earning international ESG recognition.

Global Expansion and Integrated Energy Services

2025

- Mitsubishi Electric invested through private placement and acquired a 3.07% equity stake in HDRE.

2024 Sustainability Performance

In 2024, HDRE received widespread recognition in sustainability leadership, reporting excellence, environmental management, and operational safety, reflecting its firm commitment to sustainable development and responsible governance.

Categories	Description	Award name	Award	Photos
01 Sustainability Leadership & Corporate Social Responsibility	Recognizes HDRE's leadership in sustainability and CSR, highlighting the company's commitment to environmental responsibility and setting industry benchmarks.	BSI Awards	Sustainable Development Practice Award	
02 Excellence in Sustainability Reporting & Disclosure	Acknowledges HDRE's transparency and integrity in sustainability information, helping stakeholders better understand the Company's strategy and performance.	Asia Responsible Enterprise Awards (AREA)	Corporate Sustainability Reporting Award	
		Taiwan Corporate Sustainability Awards (TCSA)	Corporate Sustainability Reporting – Silver Award & Taiwan Sustainability Model Award	 

Categories	Description	Award name	Award	Photos
03 Individual Achievement in Sustainability Leadership	Highlights the vision and leadership of HDRE's executive team, which plays a vital role in advancing the Company's sustainability agenda.	Asia Responsible Enterprise Awards (AREA)	Green Leadership Award	
		Asia Pacific Enterprise Awards (APEA)	Chairman Edward Hsieh awarded MASTER ENTREPRENEUR CATEGORY	
04 Environmental & GHG Management Certifications	Demonstrates HDRE's strong foundation and proactive action in environmental protection and climate response.	Taiwan Alliance for Net Zero Emission	Green-Level Net Zero Label	 
		Greenhouse Gas Inventory	ISO 14064-3:2019 Certification (including categories 3.3, 3.5)	

Categories	Description	Award name	Award	Photos
05 Operational Excellence & Safety Certifications	Affirms HDRE's adherence to international standards in service quality and stakeholder protection.	O&M Services	TÜV NORD Classic AAA Certification for O&M Management Service	
		Information Security	ISO 27001: 2022 Information Security Management System Certification	

Future Vision

Sustainability Initiative	Commitment
RE100	HDRE, in line with the spirit of RE100, has committed to achieving 100% renewable electricity use across all offices in Taiwan by 2030.

RE100
CLIMATE GROUP

Philosophy and Vision

HD Renewable Energy (HDRE) is guided by the vision of "Green Energy for Every Home, Carbon Neutrality for Every Household," developing a comprehensive portfolio covering solar, wind, and energy storage systems, while actively expanding into fishery – solar symbiosis and the ultra-fast EV charging sector.

Through its three core business units — Power Development, Asset Management, and Smart Power Services — HDRE aims to become an international smart power company delivering integrated and customized green energy solutions. In line with the liberalization of electricity markets, HDRE continues to expand the green energy ecosystem, accelerating the energy transition in Taiwan and beyond.

While pursuing business growth, the company upholds the principles of transparent governance, proactively discloses its sustainability performance, and honors its commitments to environmental and social responsibility.

Core Philosophy of HDRE :

Sustainability:	Sustainability is HDRE's unwavering belief. Every colleague is encouraged to embody it in both work and daily life, ensuring it permeates corporate operations and every detail of our actions.
Innovation:	Innovation is the driving force of HDRE's growth. It comes not only from technology, but also from each colleague's pursuit of refinement and excellence, nurturing the company's continuous advancement.
Sharing:	Sharing is a core value we uphold. From information-sharing among colleagues and departments, to resource-sharing with local communities, to the wider sharing of green energy, HDRE remains committed to building connections through collaboration.
Kindness:	Kindness is the principle behind our decision-making. We believe that life influences life. By nurturing care among colleagues, strengthening teamwork, and fostering community relationships, we create a cycle of goodwill that ultimately gives back to society.
Energy:	Energy reflects HDRE's spirit. Electricity is energy; giving is energy; kindness is energy. Every contribution we make is intended to deliver positive energy, meaningful results, and warmth to those in need.

Strategic Objectives

HDRE is on track to become a fully integrated international smart power company.

Building on its strong foundation in solar, energy storage, and EV charging established in Taiwan, the company is actively expanding its presence in overseas markets, focusing on Australia and Japan in 2024. Driven by four major growth engines — Project Development, Equipment Sales, Power Retailing, and Power Trading — HDRE is driving revenue and profitability through diversified strategies.

Looking ahead, HDRE will continue to enhance the analytical and application capabilities of its Smart Energy IoT Platform, integrating data across the entire energy value chain — from generation to consumption. This will not only strengthen its position as a global green energy brand but also prepare the company for the next era of smart grid innovation.

Progress in Smart Grid Deployment				
1.0 Generation	2.0 Storage	3.0 Charging	4.0 Consumption	5.0 Consumption
1.0 Renewable Energy Generation	2.0 Green Energy Retail	3.0 Resource Aggregation	4.0 Charging Station Operation	5.0 Power Trading
・Promote renewable energy through government subsidies ・Reduce reliance on fossil fuels	・Build green supply chains ・Increase corporate demand for renewable energy ・Introduce RE100 initiatives	・Increase share of renewable energy ・Introduce distributed generation systems ・Liberalize electricity trading markets	・Global electrification of vehicles by 2035 ・Transportation electrification ・Time-of-use pricing	・Net Zero commitment by 2050 ・Arrival of the circular economy era
・Rooftop PV systems ・660 zoning regulation amendments ・Small farmland (xiaoliangjia) land-use adjustments	・Floating solar (water-based) ・Salt field solar ・Large-scale ground -mounted solar ・Large-scale tender	・Fishery and electricity symbiosis ・Offshore/onshore wind power ・Photovoltaic energy storage system ・Dynamic Regulation Reserve(Dreg)	・Biomass energy ・Agrovoltaics and diverse energy sources ・Enhancement dynamic Regulation (E-Dreg) ・Virtual Power Plant (VPP)	・Green hydrogen ・Low-carbon steel, zero -carbon steel ・Green carbon ・Biodiesel

HDRE Business Scope

Renewable Energy Development and Construction

HDRE provides services in project development and engineering, procurement, and construction (EPC). Our professional team designs and tailors customized solutions for various project types. As the ecological environment in Taiwan is complicated and diverse, in addition to the conventional roof and ground type projects, our engineering team is also equipped with exclusive and special techniques and technologies for special terrains, such as land subsidence areas, salt pans, floating platforms on water surfaces etc. We also possess expertise in high-voltage system construction, integrating design, civil engineering, and electromechanical systems to reduce project risks and costs.

Project Type	Service Description	Project Locations	Technical Features & Advantages	Representative Projects & Photos
Roof Type Solar PV Projects	Installation of solar photovoltaic (PV) modules on building rooftops, either laid flat or mounted on shed frames. Applicable for schools, government institutions, corporate factories, and commercial buildings.	Taoyuan City, Changhua County, Yunlin County, Yilan County	• Customized design solutions tailored to different building structures • Zero land occupation, maximizing the utilization of existing spaces • Ideal for RE100 enterprises and major electricity users seeking green power self-sufficiency	Yilan Yuasa Battery – Roof Type PV Project 
Ground Type Solar PV Projects	Installation of solar PV modules on open land or designated sites, including flatlands, farmland, and special terrains.	Tainan City, Pingtung County, Hualien County, Penghu County	• Large-scale development capability, with single projects exceeding 30 hectares • Specialized construction methods for subsidence zones and salt pan sites • Active participation in public sector tenders to help achieve national renewable energy targets	Ground type field, Sheng-Feng, Hualien 
Water Surface Type Solar PV Projects	Deployment of floating PV systems on reservoirs, detention basins, ponds, and other water bodies.	Taoyuan City, Hsinchu County, Changhua County, Chiayi County	• Advanced water-resistant and weather-resistant float technology ensuring system stability • Specialized anchoring technology to enhance wind and wave resistance • Maintaining ecological balance of water bodies while creating multiple surface-use values	Water surface type field, Hsinchu 
Fishery-Solar Symbiosis Projects	Integrated development of aquaculture and solar PV systems, in line with the policy of "Fishery as the foundation, Green Power as added value."	Chiayi County, Tainan City	• Professional team providing holistic planning and design from aquaculture to power generation • Proven track record of operational projects demonstrating technological maturity • Development experience covering 12,533 hectares of designated zones in Changhua, Yunlin, and Chiayi	Tainan Qigu – Ri Yun Fishery and Electricity Symbiosis Site 
Ultra High Voltage (UHV) Projects	Construction of power transmission systems above 25,000 volts and substations serving PV plants of 20MW or larger.	Changhua County, Chiayi County, Tainan City	• In-house construction capability managing key power infrastructure • Comprehensive consideration of all aspects of power systems to provide integrated solutions • Mitigates grid-connection risks for large-scale power plants while enhancing overall grid stability	Tainan Beimen – Ground type and UHV field 

2.Power Station Asset Management

HDRE's asset management consulting service emphasizes providing financial and legal advisory services. Leveraging HDRE's solid expertise in project development, assessment, solar power station system construction, operation and maintenance management, and extensive experience, we aim to provide professional and comprehensive services to customers for the period from their early development stage to the in-service operation of twenty years to maximize the asset value.

Project Type	Service Description	Technical Features & Advantages	Representative Projects & Photos
Power Station Operation and Maintenance	Comprehensive maintenance of solar power stations, including module cleaning, system inspection, equipment repair, and troubleshooting.	• AI-based monitoring to detect potential issues in advance • Big data analysis for optimal plant performance recommendations • Customized O&M solutions tailored to project-specific needs	Star Power Energy Corporation's first joint venture project, Beimen, Tainan 
Smart Asset Management	Integrated asset advisory services covering financial, legal, and technical aspects, ensuring a full life-cycle management plan for 20 years of power station operation.	• Comprehensive contract and financial management system to mitigate operational risks • Strategic planning to maximize asset value • Professional team ensuring compliance at all levels to enhance long-term return stability	
Fishery Management	Dedicated ecological and production management services for fishery and electricity symbiosis projects.	• Biodiversity conservation technologies and intensive aquaculture management • Application of natural water circulation and bioengineering methods • Smart sensing and cloud integration for precision aquaculture	Aquaculture Experimental Station, Qigu, Tainan 

3.Smart power Services

Project Type	Service Description	Technical Features & Advantages	Representative Projects & Photos
Smart charging system	Planning and construction of EV charging solutions across public spaces, commercial buildings, and residential communities.	• “Full-zone planning” concept to overcome infrastructure challenges in existing buildings • Integrating green electricity supply to realize a truly zero-carbon mobility solution • Comprehensive operation management system to optimize user experience	Implementation record: Best practice solution for a medium-sized community in Northern Taiwan 
Energy storage integration solution	Construction of commercial- and utility-scale energy storage systems to optimize power dispatch and application.	• Professional participation in Taipower's Enhancement Dynamic Regulation (E-dReg) ancillary services market • Fast charge/discharge technology for effective frequency regulation • Improved renewable energy utilization and reduced energy waste	Deployment Achievements: Energy Storage Projects 
Green electricity supply service	Comprehensive green electricity solutions for corporate clients, covering evaluation, procurement, and certification management.	• One-stop integrated green electricity service • Corporate green power group-purchase program to reduce entry barriers and costs Carbon management and net-zero strategic planning • Integrated PV-storage-charging services to help clients achieve net-zero carbon goals	
Green Power Supply Services	Optimization of energy usage through data analytics and AI algorithms.	• Proprietary green electricity matching platform “Star Intelligence Green Power” with an optimized allocation ratio and matching rate exceeding 90% • Proprietary green electricity membership platform “Green Power Square” for real-time energy monitoring and visualized analytics	

2024 Operational Highlights and Future Plans

Category	Business Achievements	Future Plans
Solar Power Projects	• HDRE's self-owned power plants in operation exceeded 490,000 kW in total capacity • Cumulative project development in Taiwan exceeded 1.5 GW • Project development in Japan exceeded 100 MW • Project development in Australia exceeded 300 MW • Successfully completed the Qigu Demonstration Project with an installed capacity of 42.8 MW	• Strengthen solar power project development technology and further expand presence in Taiwan and overseas markets • Accelerate the construction of the Wendeng fishery and electricity symbiosis project, targeted for phased completion during 2025 – 2026 • Diversify development of projects including fishery-solar and industrial/commercial solar plants • Integrate photovoltaic energy storage systems to create comprehensive smart power solutions
Power Plant O&M Management	• Signed O&M contracts covering power generation facilities with a total capacity of over 300 MW • Enhanced the performance of smart monitoring systems to optimize O&M efficiency • Integrated next-generation data analytics to improve power generation efficiency	• Targeting O&M contracts covering 1 GW of power generation facilities by 2025 • Develop AI-driven predictive maintenance technologies to improve equipment reliability • Continuously enhance the expertise of the O&M team to increase customer satisfaction • Promote standardization and modularization of O&M services
Investment Management (Asset Management Division)	• Established four joint venture platforms, managing assets exceeding NTD 65 billion • Formed an investment platform in collaboration with Fubon Green Power Co., Ltd., successfully initiating three energy storage projects in 2024 • Completed follow-up and management of the Aqua Star Energy Corporation Phase II investment project • Two energy storage projects completed in 2024 and scheduled for settlement in March 2025	• Fubon Green Power platform plans to propose development of 730 MW in storage and solar projects • Actively expand domestic and international green energy investment opportunities to enlarge asset management scale • Innovate financing models to reduce project development risks • Strengthen operational performance of joint venture platforms to ensure timely achievement of financial targets

Category	Business Achievements	Future Plans
Fishery Management (Star Aquaculture Co., Ltd.)	• Completed development of over 1,000 hectares of projects • Successfully constructed the Qigu Demonstration Project with an installed capacity of 42.8 MW • Obtained multiple patents for fishery and electricity symbiosis aquaculture technologies • Enhanced aquaculture techniques to improve yield and product quality	• By 2025, target management of 300 hectares and 10 patents filed for aquaculture technologies • Complete carbon footprint certification for aquaculture products and obtain production traceability and supply chain certification • Develop intelligent aquaculture monitoring technology to enhance the economic value of fishery-solar symbiosis
Renewable Energy Retail (Star Trade Co.,Ltd.)	• In 2024, power wheeling volume exceeded 90 million kWh; cumulative wheeled green power contracts exceeded 16.1 billion kWh, with 99,392 RECs obtained • Partnered enterprises accounted for over 156 MW of capacity, with more than 2,084 supply points • Launched Star Intelligence Green Power and Green Power Square management platforms	• Overseas expansion: Participate in the Japanese market in 2025 • Continue expanding renewable energy procurement and sales to increase market share • By 2025, expected procurement capacity of 1 GW and green power sales of 330 million kWh • Further enhance green power management platform functions to deliver more comprehensive one-stop services
Carbon Management Services (Star Trade Co.,Ltd.)	• Published the 2024 White Paper on Low-Carbon Transition Market and Services • Provided clients with comprehensive carbon management solutions • Developed smart power application strategies to optimize corporate energy dispatch • Promoted Green Leasing 2.0, an innovative model for enhancing ESG value of buildings	• Complete the first solar-storage site collaboration in 2025 • Strengthen AI-driven power management technologies to increase carbon reduction effectiveness • Continue developing innovative carbon management solutions to support clients in achieving net zero targets • Expand the scope of Green Leasing collaborations to enhance market coverage
Charging Piles (Star Charger Co., Ltd.)	• Expanded into the Japanese market in 2024 with the SHUUSTAR brand • By the end of 2024, installed 248 charging piles at 117 sites • Currently, 175 sites under construction and 250 sites in development • Established partnerships with major corporations including FamilyMart, PX Mart, E-Life Mall, Chiba Hot Pot, Shin Kong Mitsukoshi, and City Car Travel	• Japan SHUUSTAR aims to implement commercial charging solutions for 10 corporate clients within two years. • By 2025, build 23 DC charging stations in Japan, followed by 100 stations annually starting in 2026 • Launch a roaming platform in 2025 enabling interconnection among different CPOs • Target installation of 1,000 charging points within three years

Category	Business Achievements	Future Plans
Energy Storage	• Successfully completed construction of the Chaozhou, Pingtung 99 MW and Heping, Hualien 10+10 MW storage systems • Obtained land-use permit for the Longjing, Taichung 100 MW storage system • The Heping, Hualien 10+10 MW system successfully grid-connected and began service	• 2025 online targets: Heping, Hualien 40 MW (by end of July 2025) • Mid- to long-term plan: Longjing, Taichung 100 MW grid-connected by Q2 2026; Fenggong, Taitung 100 MW grid-connected by Q3 2026 • Liuying 100 MW and Chaozhou 99 MW grid-connected by Q1 2026 • Continue expanding storage system capacity to establish a comprehensive storage network
Energy Aggregator	• Smart Services Division integrated software development resources, overseeing both Planning and R&D Departments • Assisted Star Charger Co., Ltd. and Star Trade Co., Ltd. in planning and developing software service products • Completed planning of the Star Charger eMSP traffic platform • Completed development of the Green Power Square membership platform for Star Trade Co., Ltd., enhancing enterprise client services	• Invest at least NTD 50 million annually in R&D • Expand HDRE’ s Green Energy Management Platform to markets in the Asia-Pacific region, Japan, the Philippines, and Australia • Enhance the green power trading service platform of Star Trade Co., Ltd. to optimize wheeling efficiency analysis • Advance power trading technologies in coordination with business units to expand into green power, carbon credit, and energy-saving markets

1.1.2 Industry Value Chain GRI 2-6

Countries worldwide are actively addressing climate change and driving a green energy revolution. Taiwan has joined this global movement by setting the goal of achieving carbon neutrality by 2050 and establishing key energy transition targets for 2025. The development of renewable energy and the policy of phasing out nuclear power have been designated as central directions of Taiwan's energy transition.

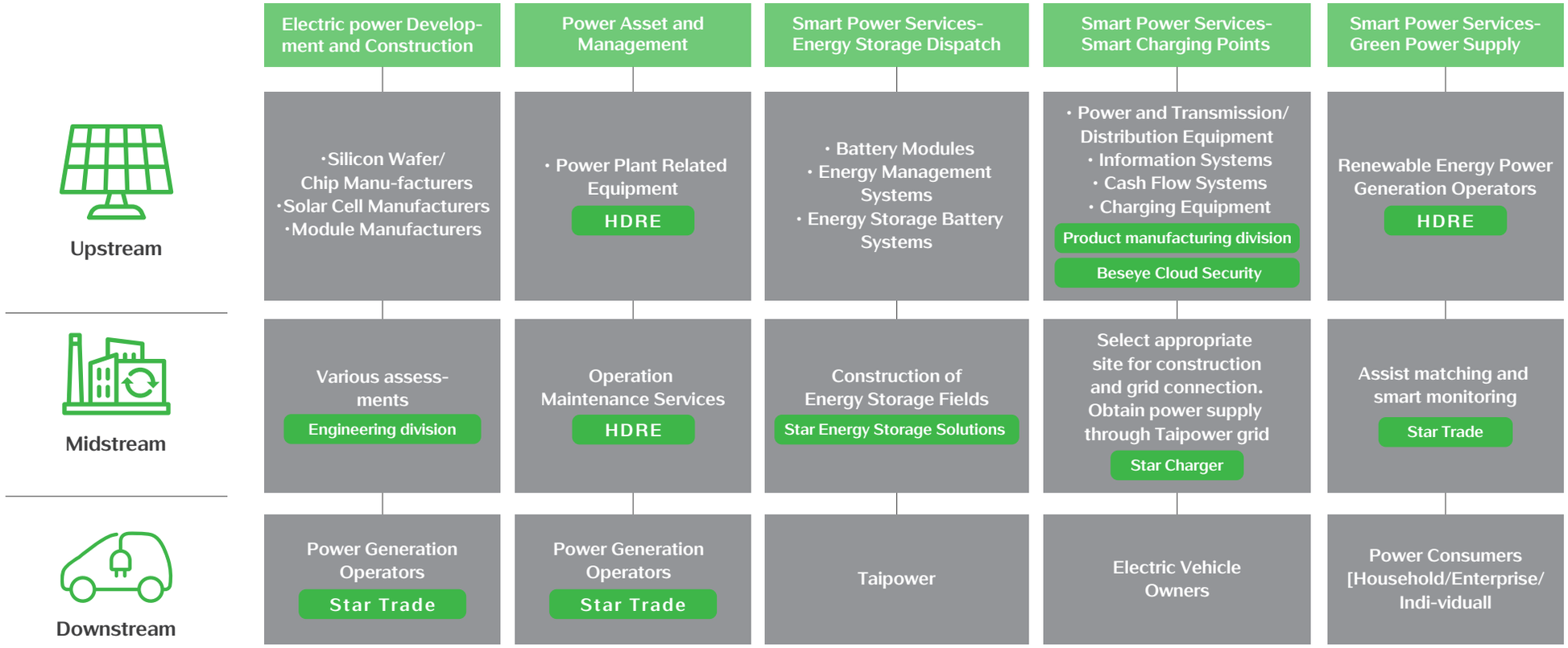
As a green energy aggregator, HDRE operates across three major business segments: project development, engineering and construction, power generation and retail, and smart energy applications.

In the electric vehicle charging sector, HDRE collaborates with power generation, transmission, and distribution operators, as well as providers of charging equipment, information services, and payment solutions, to deliver charging services for EV owners. We are dedicated to supporting industries in adopting clean, renewable energy and providing operational support to foster collaboration across the value chain and advance sustainability while reducing carbon emissions.

HDRE Value Chain

HDRE places great importance on stakeholder engagement and upholds openness and transparency by offering diverse channels for two-way dialogue. Through regular communication and interaction, the company discloses key information, gathers feedback, and proactively seeks stakeholder input to ensure continuous improvement and alignment with public expectations.

By integrating stakeholder engagement with materiality analysis, HDRE identifies the issues most critical to both stakeholders and the company, while strengthening sustainability management through enhanced disclosure and continuous improvement.



1.1.3 Business Development Group

HDRE engages in investment to support green power business development. The financial and business management policies of investee companies are primarily based on HDRE's internal management regulations. Nevertheless, we have established the “Procedures for Subsidiary Supervision and Management” as a guideline for investees’ investing in the subsidiary.

Five Core Business Divisions of HRDE

1.2 Stakeholder Engagement GRI 3

1.2.1 Stakeholder Identification

The starting point of stakeholder identification is based on the daily business partnership within each unit of HDRE. Through analyzing numerous stakeholders, HDRE identifies the stakeholders with the greatest influence. Following the AA1000 Stakeholder Engagement Standard (SES), HDRE assesses stakeholders based on five dimensions: dependency, responsibility, tension, influence, and frequency. Eight major stakeholder groups are identified based on the significance of their relationship with HDRE. These stakeholders are ranked in order of importance: employees rank first, followed by suppliers and contractors, customers, government agencies, shareholders and investors, communities and non-profit organizations, unions and associations, and media.

Five assessment dimensions

DEPENDENCY

01 Stakeholders who directly or indirectly rely on HDRE's products, activities, or services.

RESPONSIBILITY

02 Stakeholders of HDRE who have legal, commercial, operational, or ethical responsibilities towards it.

TENSION

03 Stakeholders who are concerned about HDRE’ s financial performance, economic, social, and environmental issues.

INFLUENCE

04 Stakeholders who have influence over HDRE’ s strategies and business decisions.

DIVERSE PERSPECTIVES

05 HDRE communicates with all stakeholders and explores diverse perspectives and aspects.

1.2.2 Stakeholder Engagement and Outcomes GRI 2-29

HDRE has established diverse communication channels for stakeholders to actively understand the attitudes, thoughts and concerns of stakeholders. In addition, the company's business strategy is regularly reviewed and adjusted as needed. thus to achieve mutual benefits for sustainable corporate operations and stakeholder interests.

Key Stakeholders	Meanings to HDRE	Issues of Concern	Ways of Communication and Frequency	The Major Communication Results in 2024
 Employees	We value our employees' opinions and consider them as important assets of HDRE. Together, we create a "Diverse, Inclusive, and Happy Workplace," ensuring employee care, a safe and secure work environment, and mutual growth.	• Product quality and responsibility • Local community communication and participation • Water resources management • Employee compensation and benefits	**Regularly** • Labor-management meetings [quarterly] • Safety and Health Committee [quarterly] • Sustainability Newsletter [monthly] • Employee Ecological Tours [semiannually] **Occasionally** • Multiple communication and grievance channels • Care meetings • Internal announcements and email notifications	**Strengthening Communication and Talent Development** • Issued 37 Sustainability Newsletters; held 4 labor-management meetings to address compensation and benefits issues. • Safety and Health Committee with 13 members (5 worker representatives, exceeding the legal 1/3 ratio). • Provided 4,756 hours of professional training for employees and management to strengthen quality management capabilities. **Safe Working Environment** • Achieved 438,538 accident-free working hours through regular safety meetings. • Maintained effective grievance mechanisms; no major employee complaints reported.
 Governmental Authorities	We are committed to complying with government and local laws and regulations. All products and services actively follow regulations and supervisory requirements.	• Local community communication and participation • Occupational health and safety • Biodiversity • Public policy and influence • Product quality and responsibility	**Regularly** • Updates on latest regulations [monthly] • Regulatory compliance audits [annually] • Government reporting platform [annually] **Occasionally** • Written reports / official correspondence • In-person discussions, on-site inspections, or meetings • Participation in government public information activities	**Regulatory Compliance and Project Advancement** • No major penalty incidents reported through regular regulatory reviews. • Tainan Ri-Yun project site passed reviews by the Council of Agriculture, Bureau of Energy, and Tainan City Government. • Chiayi Yizhu aquaculture-solar project received agricultural permit approval and submitted establishment amendment. • Held Hualien 40MW grid connection negotiation meeting and obtained Taichung City land permits.

Key Stakeholders	Meanings to HDRE	Issues of Concern	Ways of Communication and Frequency	The Major Communication Results in 2024
Industrial Unions / Associations	In addition to participating in government public events, we actively join union-announced activities, including training and site visits, to exchange on occupational safety management and promote industry maturity in health and safety practices.	• Climate change adaptation strategies • Waste management • Ethical business and legal compliance • Labor relations • Product safety management	Regularly • Public training courses [quarterly] • Counseling activities [quarterly] • Annual general meetings, banquets [annually] Occasionally • Participation in government events • External seminars and workshops	Industrial Knowledge Exchange • Participated in 20 sustainability-related courses and activities held by government and associations. • Actively joined multiple associations and unions for policy communication and discussions (see section 2.2.3 External Participation). • Shared industry safety management experiences through regular counseling sessions.
Shareholders / Investors	Achieving the best construction quality and maximizing profits are our long-term goals, enhancing shareholder and employee trust and cohesion. These are key factors in sustainable development and corporate management.	• Greenhouse gas management • Corporate governance • Energy management • Waste management • Water resources management	Regularly • Shareholders' meeting [annually] • Annual Report [annually] • Sustainability Report Occasionally • Earnings calls	Corporate Governance and Investor Relations • Held 1 shareholder meeting, 19 board meetings, and 4 shareholder committee meetings. • Delivered 4 ESG training sessions for the Board (45 hours), strengthening sustainable governance. • Conducted shareholder meetings and hosted 5 financial industry visiting groups to report on GHG and energy management performance. • Established a Sustainability Section on the official website to provide ESG information, with no negative investor feedback.

Key Stakeholders	Meanings to HDRE	Issues of Concern	Ways of Communication and Frequency	The Major Communication Results in 2024
 Suppliers	Suppliers are crucial partners in HDRE's mission to deliver high-quality services and products. We work closely with them toward building a sustainable supply chain.	• Biodiversity • Product safety management • Ethical business and legal compliance • Talent attraction and retention • Information security and privacy protection	Regularly • Supplier and contractor evaluations [annually] • Project meetings [monthly] • Regulatory compliance audits [quarterly] • Organizational coordination meetings [before start of small projects / monthly for medium- to large-scale projects] • Toolbox talks [daily] Occasionally • Occupational safety training • On-site inspections of key materials • Supplier and contractor management procedures	Supply Chain Management and Collaboration • Completed evaluations of 77 suppliers (24 initial, 53 regular), with 18 on-site inspections. • Delivered 1,716 hours of safety training to contractors (286 participants). • Organized 15 aquaculture site visits to promote biodiversity awareness. • Strengthened suppliers' EHS awareness through monthly meetings and daily toolbox talks.
 Media	Through media exposure, press conferences, branding activities, and media luncheons, HDRE conveys key information to stakeholders and the public, serving as a vital communication channel.	• Product safety management • Climate change adaptation strategies • Product quality and responsibility • Innovation research and management • Public policy and influence	Regularly • Media luncheons [1 – 2 times annually] • Press releases [3 – 4 per month] Occasionally • Press conferences • Interviews • Media tours	Media Communication and Branding • Issued 36 press releases on innovation and R&D topics. • Hosted 2 media events (47 media outlets participated), enhancing product safety communication. • Participated in domestic and international smart energy expos, resulting in 226 media reports. • Organized Taiwan and Japan Energy Week media tours, improving industry public awareness.

Key Stakeholders	Meanings to HDRE	Issues of Concern	Ways of Communication and Frequency	The Major Communication Results in 2024
Communities / Nonprofit Organizations / NGOs	We uphold our responsibility to contribute to society with core technologies and capabilities while minimizing ecological impacts. Our goal is to foster a better life through green electricity and innovation, while promoting green energy awareness and organizing multiple public welfare activities to share positive energy.	• Occupational health and safety • Water resources management • Local community communication and participation • Greenhouse gas management • Social participation	Regularly • Environmental and Social Impact Assessments [annually] • Environmental Due Diligence Investigations [annually] • Water and soil evaluations [quarterly] Occasionally • Local briefings and town hall meetings • Public welfare activities • External seminars • On-site visits	Environmental Sustainability and Community Engagement • Conducted environmental due diligence for energy storage projects addressing GHG and water resources. • Commissioned external ecological consultants for quarterly water and soil assessments to minimize environmental impacts. • Held community briefing for Tainan aquaculture-solar project to respond to local concerns. • Engaged third-party environmental groups for assessments, enhancing credibility of environmental and social issues.

Stakeholder Contacts and Communication Channels

Spokesman President Jason Chou	Tel.:+886-2-2832-8057
Deputy Spokesman Finance and Accounting Division CFO Yen-Kai Liao	Tel. : +886-2-2832-8057
Direct Customer Service Line Sales Division	Tel. : +886-2-2832-8057 Email: hd.sales@hdrenewables.com
Employee Complaint Channels Human Resource and Administration Department	Tel. : +886-2 2832 8057 Email: equality@hdrenewables.com
Fraud Report Section Audit Department	Tel.: +886-4-2255-8858 Email: hd.ac@hdrenewables.com
Integrity Management Reporting Channel Audit Department	Tel.: +886-4-2255-8858 # 220 Email: hd.ac@hdrenewables.com
Investor Section Investor relations	Tel.: +886-2-2832-8057 Email: ir@hdrenewables.com
ESG Section Sustainable Development Office	Tel.: +886-2-2832-8057 Email: esg@hdrenewables.com

1.3 Analysis of Material Topics GRI 3

1.3.1 Material Process Analysis GRI 3-1

HDRE values communication with stakeholders and adheres to the principles of transparency and openness.We provide multiple channels to facilitate effective two-way communication. Through regular dialogue with stakeholders, HDRE is able to disclose relevant information and gather stakeholder feedback. We also proactively solicit stakeholder opinions on our operations to ensure timely adjustments and continuous improvements along the path of sustainable management, while responding to the expectations of society at large.

HDRE communicates with stakeholders through various channels and integrates these engagements with materiality analysis to identify issues that matter most to both stakeholders and the company. In addition, HDRE is committed to establishing a strong foundation for sustainable operations, continuously improving areas for improvement, and enhancing information disclosure.

Step 1
Stakeholder Identification

We identify internal and external groups or individuals who have significant influence on, or are affected by, the Company in accordance with the five major principles of the AA1000 Stakeholder Engagement Standards (SES). Based on this standard, stakeholder questionnaires were distributed to department heads for completion.

35 stakeholder questionnaires were distributed, identifying 8 categories of stakeholders.

Step 2
Topic Selection

We collect sustainability topics through international standards and frameworks (GRI, TCFD, SASB), industry-specific issues, the DJSI Corporate Sustainability Assessment (CSA), MSCI ESG rating standards, and global sustainability trends, with a focus on issues relevant to HDRE's business operations. A total of 29 sustainability topics were selected for impact assessment.

8 cross-departmental sustainability interviews were conducted, and 29 sustainability topics were selected for impact assessment.

Step 3
Assess Impact Level

Based on the importance stakeholders place on each topic and the level of impact on the Company, HDRE mapped the assessment results into a Materiality Matrix. Topics were classified as high, medium, or low, serving as a reference for materiality determination.

32 internal questionnaires and 105 stakeholder questionnaires on material topics were collected.

Step 4
Determine Material Topics

Through surveys of internal staff and external stakeholders, horizontal communication among departments, and advice from external consultants and experts, HDRE evaluated the relevance and impact level of each topic on business operations. After comprehensive analysis, 10 key material topics were confirmed.

10 key material topics were confirmed

Step 5
Develop Management Policies and Conduct Regular Reviews

The results of the materiality assessment are reviewed annually and compared with the previous year's material topics. Based on this evaluation, HDRE establishes management policies and objectives for each material issue. These policies are reviewed annually to ensure alignment with sustainability context and integrity requirements.

All material topics are 100% compliant with sustainability and integrity requirements.

1.3.2 Material Topics Analysis and Matrix GRI 3-2

Sources of Sustainability Issues

HDRE identifies potential material topics the United Nations Sustainable Development Goals (SDGs), the Principles for Responsible Investment (PRI), industry trends, and stakeholder engagement. From these sources, we identified 29 sustainability topics for further impact assessment.

International sustainability standards and frameworks	Reference to standards such as the GRI Sustainability Reporting Standards, SASB (Sustainability Accounting Standards Board), Responsible Business Alliance (RBA), TCFD (Task Force on Climate-related Financial Disclosures), and TNFD (Taskforce on Nature-related Financial Disclosures).
Sustainable Development Goals (SDGs)	Evaluation of the 17 SDGs and their 169 targets, and identification of how HDRE' s actions contribute to these goals.
International sustainability ratings	Reference to indicators such as the MSCI ESG Leaders Indexes, Carbon Disclosure Project (CDP), and the Dow Jones Sustainability Index (DJSI) Corporate Sustainability Assessment (CSA).
Industry development trends	Global sustainability trends and issues of concern to industry peers.
Stakeholder concerns	Issues raised by stakeholders including employees, suppliers, customers, government agencies, shareholders/investors, communities/non-profit organizations/NGOs, industry associations/unions, and media.

Sustainability Topics

Following internal discussions within HDRE's Sustainability Development Office and engagement with stakeholders, we conducted an analysis from four dimensions: Governance, Environment, Social, and Products & Services. A total of 29 sustainability topics were identified. These topics guide HDRE in refining governance policies and advancing corporate sustainability.

Governance

- Corporate governance
- Operational performance
- Risk management
- Integrity management & legal compliance
- Information security & privacy protection
- Tax strategy
- Public policy & influence

Environmental

- Biodiversity
- Climate change adaptation
- Waste management
- Energy management
- Greenhouse gas (GHG) management
- Water resources management
- Supplier environmental assessment

Social

- Talent attraction and retention
- Employee compensation and benefits
- Talent development and training
- Labor-management relations
- Human rights protection & diversity
- Local community communication & participation
- Occupational health and safety
- Social engagement
- Supplier social assessment

Products & Services

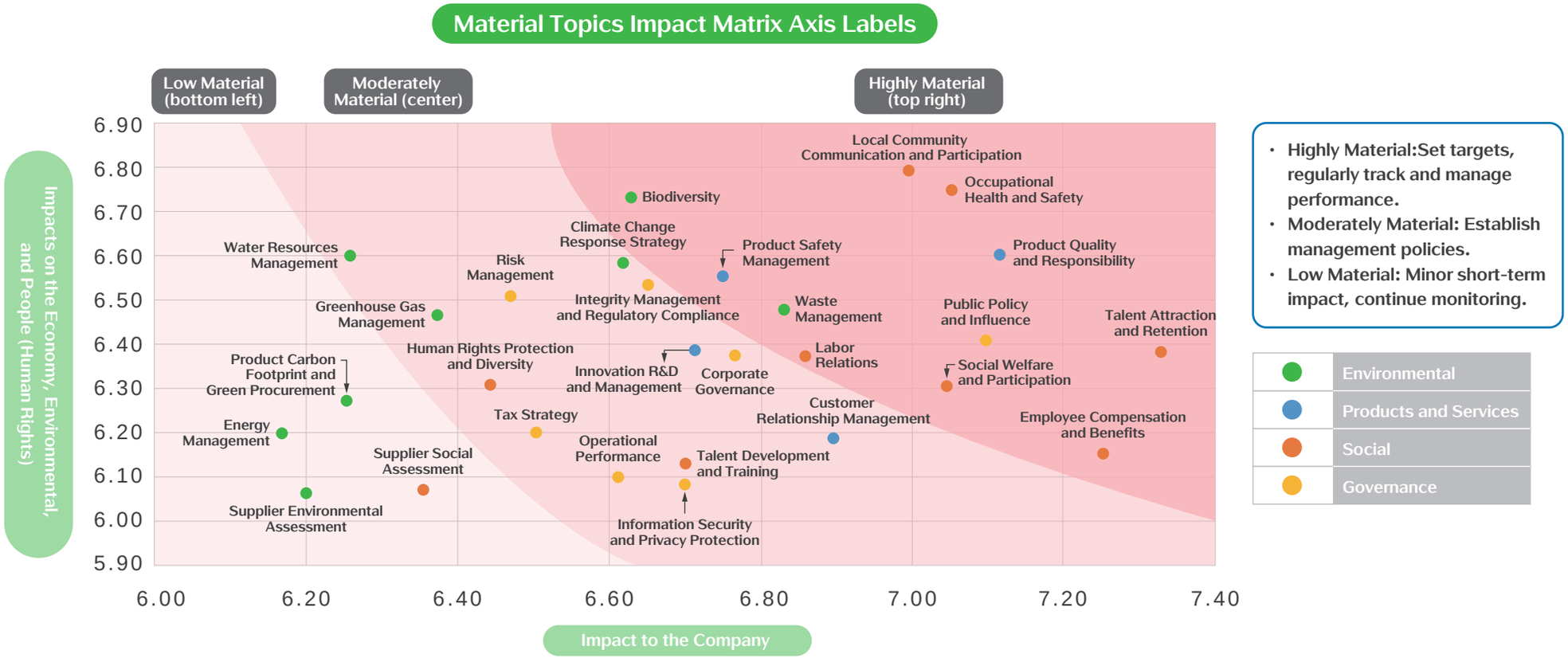
- Product quality and responsibility
- Product safety management
- Customer relationship management
- Green products and services
- Product carbon footprint & green procurement
- Innovation R&D and management

Material Topic Matrix

HDRE conducted a materiality analysis of the 29 sustainability topics, assessing their impact on the economy, environment, and people (including human rights), as well as their impact on company operations. Using cross-matrix analysis, HDRE developed a Materiality Matrix to visualize results.

Based on this analysis, HDRE develops sustainability strategies, regularly reviews performance and goal progress, and enhances credibility through internal validation and independent third-party assurance.

Performance management indicators are established in line with material topics to track progress and verify consistency with sustainability principles. Topics that have significant impact on both operations and the economy, environment, and society are identified as "Highly Material Issues."



2024 Material Topics

After completing the identification of material topics in 2024, HDRE's Sustainability Department conducted internal discussions and made adjustments based on three key factors: issue integration, industry trends, and business development strategies.

First, we merged Product Safety Management into Product Quality and Responsibility, and consolidated Employee Compensation and Welfare with Labor Relations into Talent Attraction and Retention, thereby enhancing topic diversity. Second, in view of the government's upcoming carbon fee policy and the decarbonization trends across the supply chain, Greenhouse Gas Management was added as a material topic. In addition, since most construction waste is handled by external contractors and project sites have not yet reached the decommissioning stage, Waste Management is temporarily excluded. Lastly, as innovation and R&D serve as key drivers of HDRE's revenue growth, they were added to the material topics to fully reflect the Company's sustainability priorities.

Each material topic has certain impacts on the economy, environment, people, and the Company, These topics require HDRE to respond with appropriate policies. These material topics have significant managerial implications: through evaluation and management, HDRE can enhance risk management capabilities, strengthen positive social reputation, improve competitiveness, and reinforce long-term sustainability.

For each material topic, HDRE has planned short-, mid-, and long-term management approaches and response measures. Specific action plans are established for each issue, with regular performance tracking and rolling adjustments of targets. Detailed management approaches for each material topic are outlined at the beginning of each chapter.

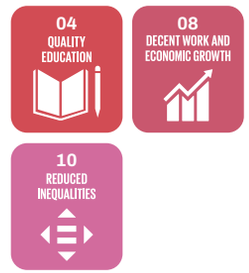
No	Material Topic	Comparison With the Previous year	Explanation	Significance to HDRE
1	Product Quality and Responsibility	Ranking ↑	Expansion into international markets increases customer requirements for quality; strengthening quality management systems is essential to ensure global competitiveness.	Product quality forms the foundation of corporate competitiveness. A sound quality management system supports international market expansion, fulfills customer expectations, and creates sustained value.
2	Talent Attraction and Retention	Ranking ↑	Rising demand for green electricity makes professional talent a critical resource, and high-quality talent determines market competitiveness strategies.	Treating talent as key assets, HDRE strives to create a diverse workplace, strengthen incentive mechanisms, and provide clear career development paths to attract and retain top talent.
3	Local Community Communication and Engagement	Ranking ↓	Effective community engagement mechanisms have already been established, reducing potential impacts.	Respect local land use and lifestyles, strengthen dialogue to understand community needs, provide job opportunities, and foster mutual benefits between the photovoltaic industry and local communities.
4	Occupational Safety and Health	Ranking ↑	Extreme weather increases workplace safety risks; the Company has strengthened EHS policies, protective measures, and emergency response plans.	Ensuring employee safety and health through comprehensive OHS systems, risk assessments, training, and protective equipment safeguards employee well-being.

No	Material Topic	Comparison With the Previous year	Explanation	Significance to HDRE
5	Public Policy and Influence	New Topics	Renewable energy is highly policy-driven; with business expansion, policy participation becomes key to sustainable operations and risk management.	Closely monitor energy policy trends, participate in industry discussions, contribute expertise, and collaborate with government to manage risks while creating a favorable policy environment.
6	Social Welfare and Participation	Ranking ↑	Actively engaging in social welfare activities enhances brand image, strengthens community ties, and promotes coexistence and shared prosperity.	Strategic involvement in education, environmental protection, and community development activities creates shared value, improves corporate image, and fosters constructive stakeholder interactions.
7	Biodiversity	Ranking ↓	Long-term biodiversity expansion and TNFD assessments have been conducted, striking a balance between development and conservation.	Incorporate ecological conservation into core development considerations, execute environmental and social impact assessments, conduct ecological surveys, and adopt TNFD frameworks to ensure biodiversity is not harmed by business development.
8	Integrity Management and Legal Compliance	Ranking ↑	As corporate development progresses, integrity remains fundamental.	Integrity is the cornerstone of corporate culture, embedded throughout transparent governance structures and internal controls to ensure compliance, protect stakeholder interests, and establish corporate credibility.
9	Greenhouse Gas Management	Ranking ↑	The rise of international carbon pricing mechanisms and corporate carbon footprint requirements drives improvements in internal carbon management, helping clients achieve carbon neutrality.	HDRE implements GHG management through carbon inventories and reduction strategies to lower operational costs, improve energy efficiency, and support clients in achieving carbon neutrality.
10	Innovation R&D and Management	Ranking (slight) ↓	Continued investment in green energy technology and AI power scheduling systems; however, ranking declined slightly due to emerging issues.	Innovation drives growth. HDRE develops green technologies and smart energy management systems to enhance efficiency, lead industry advancement, and strengthen competitiveness.

1.3.3 Material Topics Value Chain

Through internal and external impact assessments and the integration of stakeholder perspectives, HDRE identified ten material topics. We will continue engaging with stakeholders to monitor positive and negative impacts and align our actions with stakeholder expectations. By setting goals and reviewing performance for each material issue, HDRE ensures business continuity while enhancing ESG performance.

Alignment with the UN Sustainable Development Goals (SDGs)

Material Topics	SDGs	2024 Performance	Future Goals
Product Quality and Responsibility		**1.Quality Management System** • Conducted supplier quality and environmental health & safety meetings to ensure construction quality • Implemented ISO 9001 quality management system and obtained certification • Established standardized management and refined O&M solutions **2.Supply Chain Management** • Annual supplier visits: 18 times to confirm raw material quality • Reviewed contractors' "Construction Safety and Quality Management Plans" • Conducted pre-shipment inspections for materials and equipment **3.On-site Supervision** • Established "Engineering Quality Key Inspection Checklist" monitoring mechanism • Implemented daily log recording and progress quality control • Monitored and analyzed site data through AI systems **4.International Certification** • Obtained TÜV NORD AAA highest level certification	**Short-term Goals** • System Development: Construct electronic quality management platform integrating training, certification, and document management • Data Optimization: Enhance data analysis and real-time monitoring capabilities **Long-term Goals** • Certification Enhancement: Expand ISO 9001 certification scope, guide subsidiaries to obtain certification • Risk Management: Establish comprehensive quality risk management mechanism, improve contractor risk assessment capabilities • Site Management: Strengthen self-owned site management efficiency and safety monitoring, solidify cooperation with power generators • Technology R&D: Enhance equipment weather resistance research, launch new equipment adapted to extreme weather
Talent Retention and Attraction		**1.Workforce Planning** • Total employees grew to 385, with 148 new hires • Turnover rate decreased from 27.76% to 14.81% **2.International Expansion** • Completed overseas recruitment of 16 people in Japan, 2 in Australia **3.Industry-Academia Collaboration** • Partnered with National Pingtung University of Science and Technology and National Penghu University to cultivate practical talents, 4 students obtained internships, 2 converted to full-time positions **4.Employee Care** • Conducted 58 stress adjustment and nurse/psychologist care activities • All 50 manager-level and above supervisors participated in training **5.Performance and Compensation** • Established clear performance objectives and evaluation mechanisms • Female non-managerial average salary increased by 3.48% **6.Employee Health** • Completed 15 person-times of maternal health assessments and interviews • Established lactation rooms and corporate childcare services	**Short-term Goals** • Compensation Strategy: Provide industry-leading compensation and incentives, establish motivating environment • Talent Development: Improve training system, provide diverse learning opportunities **Long-term Goals** • Corporate Culture: Deepen inclusive, innovative, and collaborative work environment • Talent Pipeline: Increase cross-disciplinary integrated project workforce, cultivate future leaders • Sustainable Development: Ensure mutual growth of employees and company, achieve long-term stable development

Material Topics	SDGs	2024 Performance	Future Goals
Local Community Communication and Participation		**1.Environmental Education** • Invited Chang Jung Christian University and Kunchen Elementary School teachers and students to visit Qigu "Jih-Yun Fishery-Electricity Symbiosis Site" • Employees Teaching in Schools: Employees personally entered classrooms to teach 10 energy and sustainability courses, reaching approximately 300 students • Invested over NT$100,000 to produce 100 sets of disaster prevention education board games for elementary schools, conducting two educational courses to enhance public resilience and energy knowledge **2.Cultural Promotion** • Collaborated with Beautiful Taiwan to promote cultural and energy education, conducting nearly 60 campus tours, reaching over 5,000 students, raising awareness of environment and climate change among rural students **3.Community Participation** • Invested NT$100,000 for two consecutive years in Heshun Elementary School walking activities • Participated in Qigu District community watch teams	**Tourism Cooperation** • Plan to collaborate with sites and local communities to develop tourism packages, becoming local tourism highlights, promoting local economic development and community identity **Agri-Solar Co-creation** • Plan to engage with young farmers, production and marketing teams, cooperatives, and agricultural enterprises across counties. Starting from planting environment needs, combining greenhouse design and light transmission ratio adjustments to develop agriculture and photovoltaic coexistence models
Occupational Health and Safety		**1.Safety Achievements** • Achieved 438,538 incident-free work hours, obtained incident-free certification • Received Ministry of Labor's Excellence Enterprise Award for Occupational Health and Safety Indicators **2.Safety Management** • Reviewed contractors' "Construction Safety and Quality Management Plans" • Completed workplace violence risk assessments for 28 departments • Executed operational safety management for contractors in 11 regions, with 26,510 contractors complying **3.System Certification** • Implemented ISO 14001, ISO 45001, ISO 9001 three major systems, expanded certification scope to photovoltaic and energy storage sites **4.Health Promotion** • Obtained Ministry of Health and Welfare's Health Workplace Certification/Health Promotion Badge • Employee health check subsidy of NT$3,000 per person, 309 people across the group completed checks, on-site health service costs reached NT$227,990, 20% increase from last year • Installed 4 AED units, conducted first aid training for 45 person-times	**Short-term Goals** • Digital management: Develop an electronic EHS management platform integrating training, certifications, and document management; planning to launch in 2025 and complete integration by 2027 • First aid training: Install additional AED devices and provide ongoing training to enhance emergency response capabilities **Long-term Goals** • Certification expansion: Extend the scope of ISO 45001 management system certification and assist subsidiaries in implementing the system • Contractor capability: Enhance contractors' EHS risk assessment skills and promote a safety and health culture

Material Topics	SDGs	2024 Performance	Future Goals
Public Policy and Influence		**1.Association Participation** • Participated in 25 industry associations covering renewable energy, electric vehicles, semiconductors, and other fields **2.Industry Insights** • Star Trade published "2024 Low-Carbon Transition Market and Service White Paper" **3.Industry Exchange** • Participated in 2024 Renewable Energy Summit, 2024 Shalun Green Energy International Forum and Exhibition, Taiwan International Smart Mobility Show and other industry forums	**Policy Participation** • Actively participate in industry associations, strengthen communication with government and policy makers, promote optimization of industrial policy formulation and implementation **International Vision** • Learn from foreign market experience, understand domestic market needs in advance, develop more comprehensive systems, enhance international competitiveness **Trend Leadership** • Continue monitoring international situations and government sustainability policies, guide industries toward more sustainable directions
Social Welfare and Participation		**1.Charitable Investment** • Invested nearly NT$17,916,391 in social welfare and sustainability-related activities in 2024 **2.Vulnerable Group Care** • Guangming Temple Winter Warmth: Invested NT$300,000, donated supplies and consolation funds to vulnerable families • GiveCircle Gift Network Material Matching: Invested over NT$80,000 **3.Education Support** • Donated over NT$10 million to Beautiful Taiwan 3D Association, supporting rural tour programs with nearly 60 campus tours, reaching over 5,000 students • Trees for Soccer Project: Invested NT$144,000, promoting environmental and sports integration project, planted nearly 100 native trees in 2024 and promoted rural soccer education and secondary employment opportunities **4.Health Promotion** • Olympic Athlete Sponsorship: Invested NT$1,100,000 to support training and competition • Remote Health Promotion for Rural Elderly Public Welfare Project: Invested NT$200,000, served 3,026 person-times	**Education Promotion** • Combine campus photovoltaic facility construction with energy education promotion, continue conducting site visits to help the public understand company's sustainable development philosophy **Community Connection** • Increase neighborhood exchanges, establish long-term stable community interaction mechanisms **Charitable Participation** • Expand social influence, encourage employee volunteer participation, enhance corporate social responsibility awareness

Material Topics	SDGs	2024 Performance	Future Goals
Biodiversity		**1.Risk Management** • Implemented TNFD (Task Force on Nature-related Financial Disclosures) principles, incorporating biodiversity risks into ESG management indicators **2.Environmental Assessment** • 100% of site developments passed environmental impact assessments, regularly reviewed ecological monitoring reports, and 100% of soil quality tests met standards **3.Ecological Conservation** • Supported Green Charity Foundation tree planting program: Invested NT$1,500,000 • Planted 1,500 native tree species between 2023-2024 • Tainan Salt Marsh Wetland Restoration Action: Invested NT$200,000 in habitat restoration work **4.Practical Actions** • Prohibited use of chemical agents for module cleaning to ensure no impact on biodiversity, deepened employee environmental education, strengthened conservation consensus	**Habitat Maintenance** • Invest in marine and terrestrial habitat conservation programs, expand native aquatic species restoration in aquaculture **Ecological Creation** • Actively develop ecological creation projects, cooperate with agricultural experts based on biodiversity survey results, enrich surrounding insect and plant biodiversity ecosystem, plan to collaborate with Digital Guppy Technology in 2025 to launch Hualien biodiversity project **Sustainable Development** • Continue deepening biodiversity protection actions, preserve original ecology as much as possible, advance toward 100% green energy ecosystem, implement ecological and environmental conservation
Integrity Management and Legal Compliance		**1.Internal Advocacy** • Assigned personnel to promote company integrity management policies during internal training, strengthened employee anti-corruption and legal compliance awareness **2.System Establishment** • Incorporated sustainability information management into internal control system, implemented as mandatory annual audit item starting 2025	• Implement integrity management policies and actively comply with government regulations, establish trust relationships with regulatory authorities and investors • Continue maintaining good corporate image, maintain investor trust

Material Topics	SDGs	2024 Performance	Future Goals
Greenhouse Gas Management		**1.Green Power Development** • Established independent green power supply chain, strengthened self-owned site power generation capacity, 2024 self-generation and self-use green power reached 144,024 kWh **2.Management System** • Implemented Energy Management System (EMS) and scientific inventory tools, promoted transparency and real-time energy data for office locations and sites **3.Green Workplace** • Provided commuting subsidies, low-carbon transportation incentives and sustainable travel guidelines, encouraged employees to adopt carbon reduction behaviors, promoting overall corporate carbon footprint reduction **4.Mechanism Establishment** • Explored carbon pricing and internal incentive mechanisms, conducted continuous internal advocacy and training for climate strategies, established regular supply chain carbon emission audit mechanisms	**Short-term Goals** • Green Power Enhancement: Fully implement self-owned and Taipower-purchased green power by 2025, increase Taipei headquarters green power usage to over 90% • System Certification: Obtain ISO 50001 system management and pass BSI certification in Q4 2025 **Long-term Goals** • System Rollout: Fully implement Energy Management System (EMS) to all office locations and sites by 2028 • Carbon Neutrality Goal: Complete corporate operational carbon neutrality by 2030, covering main offices, major transportation, and business travel activities
Innovation R&D and Management		**1.Platform Development** • Developed Green Power Star Square and Green Power Star Smart Hub cloud platforms in response to Star Charger fast charging needs, assisting customers with contract management and green power matching **2.Marketing Innovation** • Developed LINE OA marketing groups in response to Star Charger fast charging needs, increasing interaction between car owners and Star Charger	**Absorption Assessment** • Based on viable business models, invest more resources in technology R&D and innovation **Research and Development** • Continue related R&D, support proof of concept and basic research, strive to become an international-class smart power company

Material Topics and Stakeholder Engagement

Following internal and external impact assessments and integration of stakeholder perspectives, HD Renewable Energy has identified 10 material topics. The following explains the relationships between each material topic and stakeholders, as well as communication methods with stakeholders on various issues.

Aspect	Material Topic	Relationship Between Material Topics and Stakeholders	MethodsCorresponding Section
Product	Product Quality and Responsibility	1. Conduct regular satisfaction surveys and stakeholder questionnaires to survey customer satisfaction with product quality 2. Conduct independent inspections and sampling of suppliers/contractors to ensure material quality and service; establish supplier/contractor evaluation system to improve product quality 3. Develop internal construction safety and quality management plan to ensure construction quality and reduce environmental impact 4. Monitor sites and analyze data through AI management system to propose and implement customized operations for different customers' power plants 5. Comply with government-established power generation equipment inspection standards to ensure product safety 6. Implement ISO 9001 quality management system and obtain third-party certification 7. Obtain TÜV NORD AAA highest level certification from international third-party certification organization to confirm service quality and technical capabilities 8. Require suppliers to provide quality certificates or material reports with shipments to enhance product competitiveness	3.3 Deepening Sustainable Value Chain
Social	Talent Retention and Attraction	1. Hold quarterly labor-management meetings to discuss working conditions and benefits 2. Conduct irregular employee care conversations to provide work support 3. Explain changes in employee recruitment and turnover rates to government agencies during annual corporate governance evaluations 4. Conduct performance reviews twice yearly, hold regular quarterly labor-management meetings and employee welfare committee meetings to establish regular communication platforms 5. Analyze retention rates, turnover rates, and resignation reasons quarterly, report and discuss in quarterly management meetings 6. Shareholders/investors learn about talent status through annual reports, investor conferences, shareholder meetings and sustainability reports, and understand talent mobility and retention strategies 7. Develop industry-academia collaboration programs to cultivate practical talents	5.1 Human Resources Management 5.2 Talent Development 5.3 Achieving a Friendly Workplace

Aspect	Material Topic	Relationship Between Material Topics and Stakeholders	MethodsCorresponding Section
Social	Local Community Communication and Participation	1. Regularly organize employee ecological tours, communicate local community information through sustainability newsletters to enhance employee understanding of local community issues 2. Confirm policies and guidelines with local communities through supplier/contractor evaluations and safety inspections 3. Actively communicate with local environmental groups or community development non-profits to discuss community benefit solutions, incorporating resident opinions into site development planning 4. Publish press releases on local community participation and community prosperity achievements to communicate with society 5. Communicate site application establishment and obtain policy permits with government through written reports and correspondence	6.1 Local Community
Social	Occupational Health and Safety	1. Communicate occupational health and safety information to employees through Occupational Safety and Health Committee, complaint mailbox and hotline, labor-management meetings, stakeholder questionnaire surveys, and electronic message 2. Conduct occupational safety policy and regulation advocacy with suppliers through supplier (contractor) EHS management questionnaire, pre-operation hazard notification forms, and regular supplier evaluation form 3. Confirm latest safety regulations with government agencies and industry associations through regular emails, correspondence, written documents, seminars, and education training	5.3 Achieving a Friendly Workplace
Governance	Public Policy and Influence	1. Participate in multiple industry associations and communicate industry policy regulations with government through associations 2. Actively participate in important domestic and international industry forums and exhibitions to promote industry exchange 3. Maintain good communication with government departments, monitor and respond to energy policy developments 4. Learn from foreign market experience to understand domestic market needs in advance and develop more comprehensive systems 5. Let media understand company insights on domestic and international industry policies and trends through press releases and irregular media gatherings, establishing industry influence	2.3 Public Policy and Advocacy
Social	Social Welfare and Participation	1. Respond to government policies by sponsoring films and exhibitions, supporting local arts and cultural activities, and promoting culture to rural areas 2. Collaborate with social organizations and NGOs to jointly support vulnerable groups and local ecological restoration 3. Lead employees to actively participate in community activities, such as Qigu District community watch teams, enhancing neighborhood relationships	6.1 Local Community

Aspect	Material Topic	Relationship Between Material Topics and Stakeholders	MethodsCorresponding Section
Environment	Biodiversity	1. Ensure colleagues fully understand HD Renewable Energy's biodiversity policies and actions through irregular sustainability newsletters and environmental education 2. Communicate with shareholders/investors through annual reports, website and sustainability reports 3. Let media understand company's emphasis on biodiversity with actual actions and results through press releases, media gatherings and site visits 4. In community communication, start from ecological green energy co-prosperity cooperation to let communities and NGOs understand HD Renewable Energy values biodiversity and is willing to invest resources for support	4.3 Biodiversity
Governance	Business Integrity and Legal Compliance	1. Strengthen colleagues' legal compliance awareness through new employee training, internal announcements and communication 2. Transmit company information to customers and suppliers through regular communication meetings and company information releases 3. Communicate integrity management and legal compliance effectiveness and future plans with shareholders, investors and media through website, investor conferences and press releases	2.4 Business Integrity and Legal Compliance
Environment	Greenhouse Gas Management	1. Conduct internal education training and ESG newsletters and announcements for all employees, regularly updating company carbon management progress and effectiveness 2. Disclose carbon inventory and green power data through company website and sustainability reports to enhance carbon management effectiveness 3. Include ESG, carbon reduction and green procurement requirements in supplier cooperation terms, actively invite suppliers to respond to ESG initiatives, establishing green supply chain 4. Regularly hold investor conferences and shareholder meetings to update carbon neutrality progress, accept investor ESG questionnaires or third-party rating agency visits to enhance company competitiveness	4.2 Energy Policy and Management
Product	Innovation R&D and Management	Communicate company development goals with colleagues through internal employee meetings Transmit corporate business philosophy and cooperation plans to customers through regular communication meetings and company information releases Communicate company R&D strategies to shareholders and investors through website and investor conferences	3.1 Green Energy Aggregator

02

Sustainable Governance, Integrity, and Transparency

CH2 Sustainable Governance, Integrity, and Transparency

Core Vision and Commitment

As HDRE moves toward listing, we are progressively refining our policies on corporate governance, sustainable development, integrity management, and risk management. While achieving operational growth, we are systematically enhancing our corporate governance performance and achievements, fostering ecological and environmental co-prosperity through sustainable development, and creating opportunities and value through risk management.

2024 Achievements and Performance

01 2024 cumulative revenue exceeded NT$10 billion for the first time, with annual growth rate surpassing **73%.**

02 R&D investment in 2024 exceeded **NT$ 100 million**, with a growth rate of **48%.**

03 Successfully secured nearly **NT$ 260** million in subsidies from Tokyo Metropolitan Government's "Large-scale Energy Storage Support Program" in 2024.

04 Invested over **NT$ 8 million** in information security management in 2024.

05 No significant legal violations or information security incidents occurred in 2024.

2.1 Corporate Governance

2.1.1 Governance Structure GRI 2-9

Corporate Governance Rooted in Sustainable Development

HDRE continues to expand its corporate landscape, adjusting the governance structure as business develops. HDRE has expanded its business from power development and engineering to power plant asset management, and subsequently to smart power services. we continue to expand our corporate reach, striving to realize the vision of electricity market liberalization.

To better respond to changes in the domestic market, HDRE established the Sustainable Development Office to strengthen sustainable governance. While capturing more business opportunities, we fulfill our corporate sustainability responsibilities and contribute to society and the environment, hoping to create more value through sustainable development.

HDRE establishes its corporate governance system in compliance with laws and regulations, the company charter, contracts signed with the stock exchange or over-the-counter market, and related regulatory matters, and upholds the following principles:

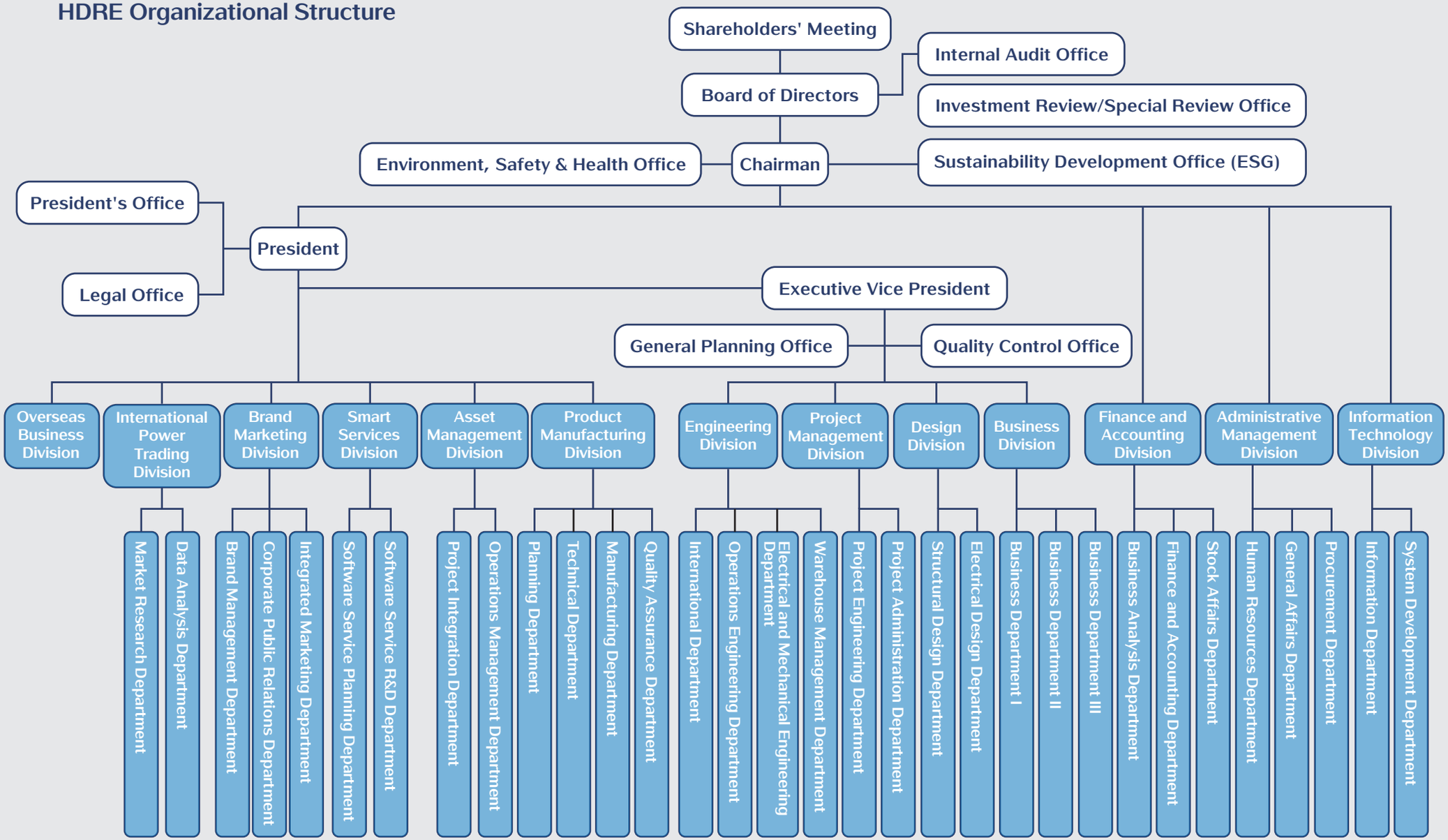
1.Protect shareholder rights

2.Strengthen board functions

3.Respect stakeholder rights

4.Enhance information transparency

HDRE Organizational Structure



2.1.2 Board

GRI 2-1 GRI 2-2 GRI 2-10 GRI 2-11 GRI 2-15 GRI 2-17 GRI 2-18 GRI 2-19 GRI 405-1

HDRE adheres to the principles of integrity governance, committed to establishing an honest and transparent corporate culture, improving corporate governance systems, and continuously deepening governance effectiveness.HDRE's Board of Directors serves as the company's highest decision-making and governance body, responsible for overall operations and supervising management's policy implementation. Board members are nominated and selected according to company charter provisions, ensuring sound board functions and operations, while complying with the "Corporate Governance Best Practice Principles" to ensure member diversity and independence. The "Board Performance Evaluation Procedures" are used to review and assess board performance. All board resolutions are documented in detail, including voting methods, to protect shareholder rights.

- **Board Diversity :** According to the company's "Director Election Regulations," we advocate and uphold board diversity policies. To strengthen corporate governance and promote sound board composition and structure development, we believe diversity policies help enhance overall company performance. Board member selection is based on merit, enhancing board diversity through gender, age, professional knowledge and skills to enable cross-industry complementary capabilities.
- **Board Independence :** All independent directors comply with FSC Securities and Futures Bureau regulations regarding independent directors.

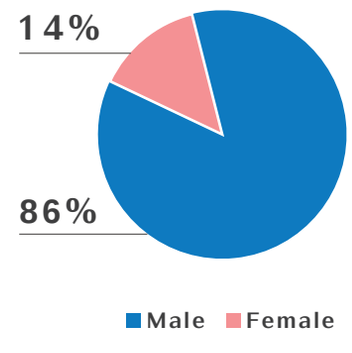
Board Composition

HDRE 2024 board comprises 7 directors, including 3 independent directors, 1 female director, and 1 employee director. Directors span a wide age range, with 5 directors under 50 years old, demonstrating the vitality and youthfulness of our governance.

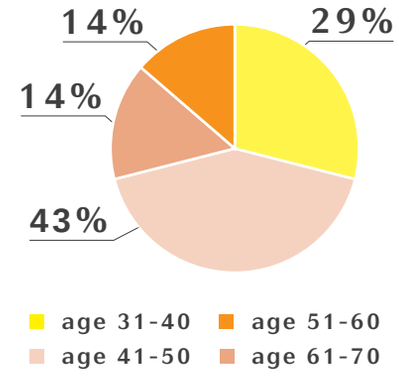
Diverse Composition / Director Name	Gender	Age	Seniority	Industry Experience				Professional Competencies	
			More than 3 year	Business Management	Venture Capital	Green Energy Application and Registration	Construc-tion Development	Finance and Accounting	Securities Finance
Edward Hsieh	Male	41-50	●	●	●	●	●	●	
Jason Chou	Male	41-50	●	●	●	●	●	●	
Yi-Neng Hsu	Male	41-50	●	●	●		●		
Han Cheng	Female	31-40	●	●	●			●	
Liang-Yu Chang	Male	31-40		●	●				●
Feng-Sheng Wu	Male	61-70		●	●			●	
Ren-Hao Deng	Male	51-60				●	●		

Key Characteristics of the Board

Gender Distribution of Board Members



Age Distribution of Board Members



Prevention of Insider Trading

The company strictly implements insider trading prevention mechanisms, regularly conducts training on the "Internal Material Information Handling Procedures" and "Insider Trading Prevention Management" training for directors, managers, and employees.

New directors and managers receive professional briefings within 3 months of appointment, providing complete regulatory information including insider reporting obligations, prohibition of insider trading, and trading restrictions during quiet periods prior to financial announcements. Relevant materials are available in internal systems, with reminders sent before financial announcements to ensure compliance and effective governance. The company reminds directors during annual insider trading prevention courses not to trade shares during the 30-day quiet period before annual financial report announcements and 15-day period before quarterly announcements.

For other insider trading prevention measures, please refer to HDRE website - Corporate Governance section:

Corporate Governance Officer

On December 23, 2024, the Board resolved to appoint the CFO of the Finance and Accounting Department, Yen-Kai Liao to concurrently serve as Corporate Governance Officer. The main responsibilities include providing information to support directors in performing their duties, assisting directors with regulatory compliance, reviewing and revising governance codes and procedures, and regularly reporting governance operations to the Board.

Functional Committees[1] GRI 2-20

Committee Composition and Operations

Committee Name	Audit Committee	Remuneration Committee
Selection Process and Principles	Established per "Regulations Governing the Exercise of Powers by Audit Committees of Public Companies": Composed entirely of independent directors, minimum three members, with one convener, at least one member with accounting or financial expertise	Established per "Regulations Governing Appointment and Exercise of Powers by Remuneration Committees": Minimum three members appointed by Board resolution, with majority being independent directors
Committee Composition	Composed of all HDRE independent directors (3 seats), with Independent Director Liang-Yu Chang as convener	Composed of all HDRE independent directors (3 seats), with Independent Director Liang-Yu Chang as convener
Committee Responsibilities	Assists the Board in supervising quality and integrity of accounting, auditing, financial reporting processes, and financial controls, continuously strengthening operational efficiency and fostering sound governance culture	Pre-reviews Board proposals regarding director and manager performance evaluation and remuneration policies, systems, standards and structures. Ensures performance evaluation and remuneration closely linked to operational strategy implementation and sustainability accountability, enhancing overall performance while pursuing sustainable development

Committee Name	Audit Committee	Remuneration Committee
Meeting Frequency (times)	13	9
Attendance Rate (including proxy)	100%	100%
Organizational Charter	See HDRE website - Corporate Governance	

Director Nomination

The appointment of directors follows a candidate nomination system in accordance with the 'Director Election Regulations.' The company actively seeks external professionals and prepares for director succession planning. To cultivate key management and their deputies, the company periodically organizes internal and external training programs focusing not only on professional skills but also on developing judgment, management abilities, and problem-solving skills to enhance the quality of management decisions and prepare high-quality human resources for long-term development.

Board Conflict of Interest Management

The company has established policies to prevent conflicts of interest, identifying, supervising and managing risks of dishonest behavior arising from conflicts of interest, providing appropriate channels for directors, managers and other board attendees to proactively disclose potential conflicts with the company.

Directors, managers and other board attendees must explain material conflicts of interest regarding agenda items. If potential harm to company interests exists, they may not participate in discussion or voting and must recuse themselves, nor may they exercise voting rights on behalf of other directors. Directors must also exercise self-discipline and avoid inappropriate mutual support. Company directors, managers, employees, mandataries and substantial controllers may not use their position or influence to obtain improper benefits for themselves, spouses, parents, children or any other persons.

2024 Board Important Resolutions

The Board passed multiple important resolutions in 2024, focusing on five major areas: operational strategy formulation including annual budgets and financial forecasts; operational information disclosure including financial reports, earnings distribution and sustainability reports; legal compliance and risk control ensuring effective internal controls; key talent management including senior executive appointments, compensation and employee stock options, overseas subsidiary compensation; operational management including organizational restructuring and performance bonuses. These decisions demonstrate comprehensive talent planning for financial transparency, retention and corporate governance, laying the foundations for sustainable development.

Board Education

To enhance capabilities needed for duties and keep pace with times, all board members completed **50 hours** of training in 2024. Courses included tax analysis, equity structures, ESG and sustainability reports, equity structures and M&A, greenhouse gas inventory, and financial information internal controls, strengthening early warning capabilities for potential crises and optimizing corporate governance.

Category	Course Name	Course Description	Hours	Participants
Finance, Tax & Investment Planning	Southeast Asia Common Investment Structure Tax Analysis	Introduction to basic tax regulations in Southeast Asian countries, analyzing cross-border operation and investment structure tax costs through case studies	3	4
	Corporate Equity Structure Design, Investment M&A and Offshore Company Issues	Equity design is crucial for company establishment and growth. With recent Company Act and M&A Act amendments, equity structures are more flexible but still involve tax and investor protection issues	3	4
	Corporate Financial Information Preparation and Internal Control Standards	Addressing regulatory compliance for financial disclosure, explaining internal control design and practical operations for financial reporting processes, helping identify process risks and understand internal audit's role	3	1
Sustainable Development & Environmental Governance	ISO 14064-1:2018 Organizational GHG Internal Verifier Training	Assists corporate personnel in understanding ISO 14064-1:2018 GHG inventory standards, establishing concepts of organizational boundaries, reporting boundaries, activity data and emission factors, introducing internal verification methods	14	1
	Sustainability Report Fundamentals	Introduces GRI standards, SASB, TCFD and other international disclosure standards, reviews benchmark ESG reports to enhance understanding of sustainability report preparation	3	1
Legal Compliance & Risk Management	2024 Insider Equity Trading Legal Compliance Briefing	Helps insiders understand securities trading regulations regarding equity management and strengthens insider trading prevention awareness	3	1
	Director Legal Responsibilities and Risk Prevention	Analyzes director legal responsibilities under Company Act and risk prevention through practical cases	3	1

Board Performance Evaluation GRI 2-20

According to HDRE's "Board and Functional Committee Performance Evaluation Procedures," performance evaluation results serve as a reference for director and committee member selection or nomination, with individual performance results used for compensation determination. The 2024 Board, director, and functional committee performance evaluations were completed in Q1 2025 and were reported to the 4th Board's 34th meeting, with scores ranging from 96.89 to 97.57, indicating strong overall performance.

Director and Manager Compensation Policy

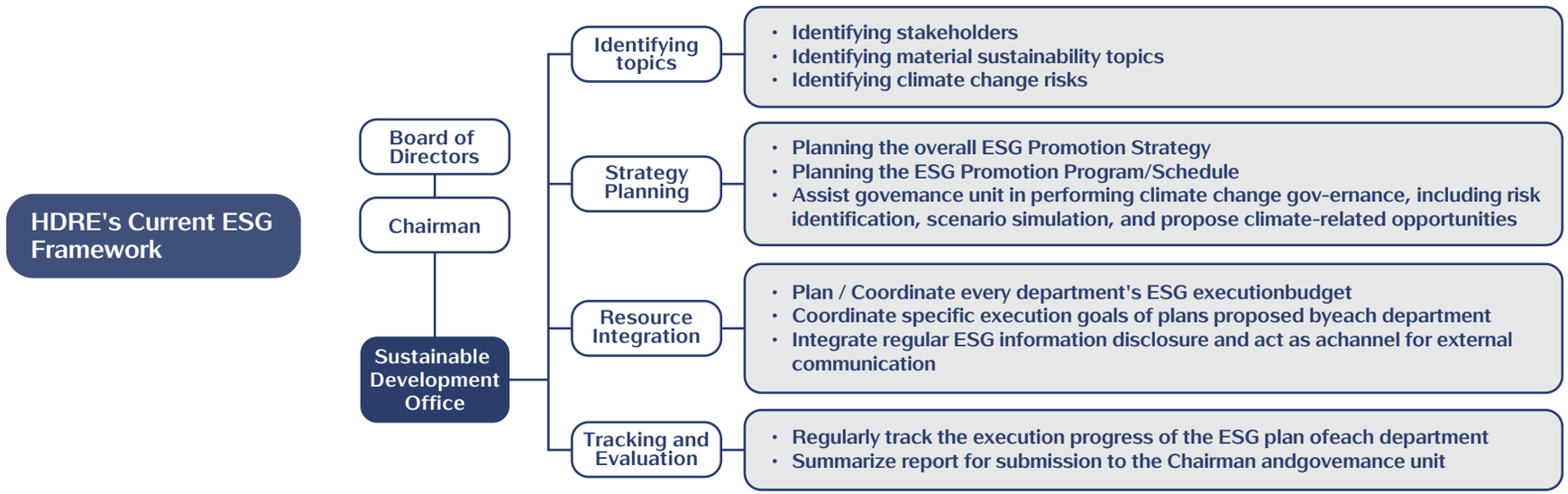
Directors: Director and supervisor remuneration follows the company charter provisions, determined by the Remuneration Committee and the Board, and distributed after shareholder meeting approval.

Managers: CEO and Vice President salaries follow company compensation policies and industry standards at hiring, and are subsequently adjusted according to annual salary adjustment policies and performance evaluations. Bonuses and employee remuneration follow the company charter provisions and are based on annual performance and contributions, with proposals reviewed by the Remuneration Committee. For detailed director and manager compensation policies, please refer to the HDRE annual report.

2.1.3 Sustainable Development GRI 2-9 GRI 2-23

HDRE's Board approved the establishment of the Sustainable Development Office in 2021, which reports to the Chairman. Responsibilities include issue identification, strategy planning, resource integration, and performance tracking, and the office assists the Board in implementing sustainable management. The office conducts quarterly sustainability performance reviews with senior management and reports final results to the Board annually.

In 2024, Chairman Edward Hsieh signed the “Biodiversity Policy,” committing to avoid development in nationally or internationally recognized biodiversity-rich areas, upholding the core values of sustainable management and natural co-prosperity, targeting zero net deforestation and zero net loss of biodiversity, and achieving a Net Positive Impact on biodiversity by 2050. Beyond environmental aspects, HDRE has adopted the “Human Rights Policy” and plans to launch an “Employee Satisfaction Survey” in the near term, comprehensively responding to the SDGs and advancing sustainable development.



HD Renewable Energy Sustainable Development Blueprint

The Sustainable Development Office uses the SDGs as its blueprint, integrating ESG concepts with operational strategies, consolidating internal and external resources, and strengthening governance, environmental protection, and sustainable development. Aligned with the company’ s development goals and the vision of the UN Sustainable Development Goals (SDGs), we have established implementation pillars and plans across the environmental, social, and governance dimensions, setting short-, medium-, and long-term goals to progressively realize HDRE's sustainability vision. We have also formulated the “Sustainable Development Policies,” which cover seven key areas, aimed at achieving low-carbon operations and creating an ecologically friendly, socially inclusive, and economically prosperous sustainable future.

Upholding the vision of "Light, Charging and Storage for Every Home, Carbon Neutrality for Every Household," HD Renewable Energy has established a comprehensive sustainable development pathway since 2016, taking concrete actions to address climate change challenges.

HDRE Sustainable Development Policy

HDRE upholds core values of professionalism, innovation, passion and transparent integrity, dedicated to providing sustainable clean energy. We commit to reducing ecological damage while creating economic value through power station development, EPC engineering, O&M, and R&D of green technologies like intelligent monitoring systems. We implement environmental health and safety measures, provide quality and satisfactory customer service, jointly strive for corporate, environmental and social sustainable development, becoming an outstanding enterprise in the industry chain.

Seven Sustainable Development Policies

01	Establish corporate sustainable development goals, implement execution and regularly review effectiveness
02	Comply with government regulations, international human rights standards and other requirements
03	Provide necessary resources and training to maintain effective operation of company systems and management systems
04	Promote circular economy, improve environmental energy performance, effectively reduce environmental impact
05	Establish safe and secure workplaces, enhance hazard prevention, promote employee physical and mental health
06	Ensure unobstructed communication with stakeholders through diverse negotiation channels and transparent disclosure of relevant information
07	Promote all employees to participate in quality control, environmental and occupational health and safety,health promotion and energy efficiency enhancement activities, and continuously improve them

2.2 Business Performance

2.2.1 Operational Performance

Based on the core concept of smart green energy, the company continues to improve its corporate governance mechanisms, establishing transparent and rigorous supervisory systems to effectively prevent internal fraud, ensure the accuracy and transparency of financial statements, and mitigate the impact of financial risks and market fluctuations on corporate operations. At the same time, it strengthens the effectiveness of communication with various stakeholders. Through forward-looking deployment, risk management, and the advancement of AI technology, the company actively develops the renewable energy market to achieve sustainable business growth.

2024 marked a critical milestone for the company’ s business expansion and internationalization. In terms of revenue performance, the company’ s cumulative revenue exceeded NT$10 billion for the first time in 2024, reaching NT$10.125 billion, with an annual growth rate exceeding 73%, setting a new company record. Regarding overseas market development, the company formally established a subsidiary in Australia in April 2024 and signed a strategic cooperation agreement with local electricity retailer ZEN Energy. The scope covers 500 MW of solar-plus-storage development rights, 4 MW of virtual power plant collaboration, and energy storage site development. Subsequently, both parties will jointly promote renewable energy businesses such as green hydrogen.

In addition, the company cooperated with Tokyu Land Corporation in Japan to promote a large-scale energy storage project in Gunma Prefecture, successfully obtaining approximately NT$260 million (1.19 billion yen) in grant funding from the Tokyo Metropolitan Government's “Large-Scale Energy Storage Support Program.” With a selection rate of less than 10%, this achievement demonstrates the company’ s outstanding capabilities in energy storage technology and international project execution. This project not only showcases the company’ s professional capabilities but also helps increase Japan’ s renewable energy share, establishing a model for cross-border smart energy cooperation.

- **Market Recognition and Listing**

HDRE aims to become a privately operated smart power company, promoting the advancement of smart green energy accessible to all. In 2023, HDRE gained the trust and recognition of capital markets and was formally listed, becoming Taiwan’ s second company to be listed on the Innovate Board. In September 2024, it successfully transferred from the Taipei Exchange’ s Innovate Board to the centralized market, officially trading on the Taiwan Stock Exchange’ s main board starting September 26. This signifies that the company’ s governance, scale, and performance have gained recognition from regulatory authorities and the investing public.

• Increasing Site Development

In 2022, HDRE focused on developing fishery-solar symbiosis projects, completing the construction of the Tainan Qigu fishery-solar symbiosis project and conducting pilot aquaculture trials for species such as mullet, clams, and white shrimp. Through a fishery-solar cloud management system that monitors weather, water quality, and other production data, we aim to optimize future aquaculture management based on historical production data.

Tainan Qigu Fishery -Electricity Symbiosis Site

Chiayi Xinsheng Site

• Revenue Expansion through Strategic Partnerships

In 2024, we developed 175 charging station locations, completed construction of 106 stations, and sold 411 charging pile facilities. In 2024, we partnered with well-known merchants including FamilyMart, PX Mart, E-Life, and City Parking, and collaborated with government agencies such as Taiwan Sugar Corporation, Taiwan Railways Administration, and Taoyuan Airport MRT to acquire more charging station facilities. We hope to partner with more entities and venues in the future to create new energy achievements. Additionally, at the end of 2024, we announced a collaboration with Uber to help enterprises adopt the "Corporate Green Rides" program internally.

HDRE collaborated with Uber to introduce the internal "Corporate Green Rides" program, encouraging employees to support low-carbon transportation! We also provide electric vehicle charging discount programs for Uber's professional drivers, encouraging more drivers to switch to electric vehicles.

Star Charger Co., Ltd. partnered with City Parking, having signed contracts for over 100 locations and completing one-stop payment services. We have also completed construction at Taipei Dome and public parking lots in Taichung and Kaohsiung.

Star Charger Co., Ltd. operates 13 charging stations in partnership with FamilyMart convenience stores and continues to develop more locations.

2.2.2 Financial Performance GRI 201-1

In 2024, HDRE’ s consolidated financial statements reported basic earnings per share of NT$11.10 and operating revenue of NT$10,125,465 thousand, reflecting a year-on-year growth of nearly 73%. During the year, HDRE invested NT$106,067 thousand in research and development, representing approximately 1% of operating revenue. The company strives to serve customers with technologies that deliver the highest efficiency and lowest energy consumption, thereby enhancing renewable-energy utilization efficiency—an effort that plays a key role in achieving future goals of green development and carbon reduction. In line with supportive government policies and international sustainability trends, HDRE also received government subsidies totaling NT$416,890 thousand in 2024.

Three-Year Operational Results Overview (Consolidated Financial Statements)

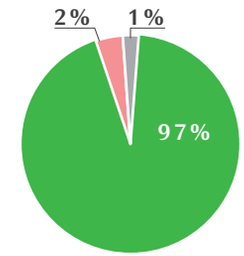
Unit: NT$ thousand

Year	2022	2023	2024
Operating Revenue	5,060,371	5,839,009	10,125,465
Gross Profit	1,146,534	1,450,172	2,527,867
Net Income After Tax	648,152	818,412	1,179,133
Gross ProfitMargin	23%	25%	25%
Earnings PerShare (NT$)	8.18	8.16	11.10

HD Renewable Energy's 2024 business revenue primarily came from engineering contracts, mainly from site construction in Taiwan. All sales regions in 2024 were within Taiwan

Primary Business Activities

- Engineering Contract Revenue
- Service Revenue
- Others



Tax Policy

HDRE implements robust internal control mechanisms and management measures to ensure full tax compliance. Tax risks and potential impacts are carefully assessed in all major decisions and transactions. The company regularly reviews the applicability of relevant tax regulations and upholds transparency and compliance in all tax-related activities.

Year	2022	2023	2024
Income Before Tax (thousand)	812,495	1,002,733	1,002,733
Income Tax Expense (thousand)	164,343	184,321	184,321
Effective Tax Rate (%)	20%	20%	20%
Income Tax Paid (thousand)	130,161	300,123	300,123
Cash Tax Rate (%)	16%	30%	30%
Income Tax to Operating Revenue Ratio (%)	20%	18%	18%

For detailed business performance and financial information, please refer to HD Renewable Energy's official website - Financial Reports: Investor Relations - Financial Information

Government Subsidies GRI 201-4

Item	Subsidy Amount (NT$)
Ministry of Labor Occupational Safety and Health Administration - On-site Health Service Expense Subsidy	227,990
Workforce Development Agency Yunlin-Chiayi-Tainan Branch 2024 College Graduate Pre-employment Program Enterprise Unit	186,950
China Productivity Center 2024 Small Enterprise Human Resources Enhancement Program Subsidy	23,400

2.3 Public Policy and Advocacy GRI 415 Material Topic: Public Policy and Influence

Material Topic:Public Policy and Advocacy

Actual and Potential Impacts on Economy, Environment, and People	Commitments and Results	Goals
Positive Impacts (Opportunities)	Company Policy and Commitments on Public Policy and Influence	Short-term Goals (1-2 years)
1.Policy Opportunities Government promotion of the "Renewable Energy Development Act" and "Electricity Act" amendments, along with green electricity trading platforms, creates a stable investment environment and promotes development of local solar and wind power industry chains. The Company can expand investment and construction scale, enhancing capacity and revenue. **2.Environmental Protection** Policy guidance promotes green electricity adoption, reducing carbon emissions, improving air quality, and achieving national climate action goals. **3.Ecological Integration** Promoting "fishery-electricity symbiosis" sites and ecological conservation design enhances corporate environmental responsibility image. **4.Local Participation** Renewable energy policies incorporate community participation and right-to-know protection mechanisms, increasing local resident participation and preventing social conflicts during development. **5.Industrial Feedback** Through local feedback, educational participation, and livelihood care mechanisms, improve quality of life and self-development rights for rural residents.	**1.Policy Participation** ・Platform Participation: Actively participate in sustainability and energy policy-making platforms ・Experience Feedback: Provide frontline development and operational experience through participation in renewable energy industry associations, T-REC system forums, net-zero pathway public hearings ・Policy Assistance: Assist government in creating fair, feasible, and forward-looking policy frameworks **2.Community Participation** ・During site development and operations, actively communicate with local governments and communities, introducing information disclosure and stakeholder dialogue mechanisms to ensure local residents' right to know and participate. **3.Ecological Responsibility** ・Independently introduce ecological integration design, biodiversity monitoring, and community feedback measures to strengthen integration between renewable energy and nature/human rights, enhancing corporate influence and social trust.	**Policy Participation:** Continue participating in government or industry-related policy public hearings or consultation meetings, providing practical recommendations for renewable energy-related regulatory amendments.

Actual and Potential Impacts on Economy, Environment, and People	Commitments and Results	Goals
Negative Impacts (Risks)	2024 Results	Medium to Long-term Goals (3-5 years)
1.Policy Uncertainty Subsidy reductions and green electricity price fluctuations may cause financial planning risks and extended investment recovery periods. 2.Ecological Risks Site construction that ignores ecological impacts may lead to environmental damage, bird habitat loss, hydrological changes, and other ecological risks. 3.Social Resistance Development processes that ignore local residents' rights to know, participate, and cultural rights may trigger social conflicts or even infringe on indigenous peoples' rights.	1.Ecological Conservation ・Protected Area Establishment: Qigu site ecological protected area established 6 hectares of Black-faced Spoonbill ecological protection zone, meeting local government and EPA policy requirements ・Research Investment: Invested approximately NT$1 million in biodiversity monitoring, commissioned research unit surveys, Hualien tribal contract farming, and local activity support projects 2.Policy Participation ・Platform Participation: Participated in energy and environmental policy platforms (Taiwan Renewable Energy Industry Association, Renewable Energy Certificate Forum), providing policy draft feedback and system recommendations ・Restoration Alliance: Participated in "Tainan Salt Marsh Wetland Restoration Alliance" to jointly promote policy implementation integrating renewable energy sites with nature conservation	Policy Attention: Continue monitoring public policy developments and assist in establishing more comprehensive renewable energy policy frameworks.

2.3.1Participation in Associations GRI 2-28

HDRE aspires to keep pace with external organizational partners and actively establish cooperative relationships. Through issue-driven exchanges, we lead industrial development upward. We actively participate in domestic trade and industry associations, hoping to gain timely insights into industry information, innovative technologies, and R&D trends through industry exchanges, to enhance industrial competitiveness and make continuous adjustments to sustainability strategies.

Organization Names

Association Name	Participating Unit/ Department	HDRE Status
TPiSA Taiwan Photovoltaic Industry Sustainable Development Association	HDRE	Director
Taiwan Photovoltaic Industry Association	HDRE	Member
SEMI International	HDRE	Member
Taiwan Aquaculture Seedling Association	HDRE	Member
Taiwan Aquaculture Development Association	HDRE	Member
PVGSA Taiwan Solar Photovoltaic Power Generation System Trade Association	HDRE	Member
Taiwan Electrical and Electronic Manufacturers' Association	HDRE	Member
Taiwan Computer Emergency Response Team/Coordination Center (TWCERT/CC)	HDRE	Information Security Supervisor, Designated Personnel
Taiwan Academy of Banking and Finance	HDRE	Information Security Supervisor, Designated Personnel
Taiwan Smart Grid Industry Association	HDRE	Member
Taiwan Power Industry Alliance	HDRE	Member
Industrial Safety and Health Association of the R.O.C.	HDRE	Member
Tainan Industrial Park Manufacturers' Association (TTIPMA)	HDRE	Member
Taiwan Smart Electric Vehicle and Green Energy Technology Association (TEGA)	HDRE	Member
Taiwan Smart Grid Industry Association	STAR Energy Storage Solutions	Member
Taiwan Alliance of Energy Digitalization Transformation (TAEDT)	STAR Energy Storage Solutions	Member
Taiwan Power and Energy Engineering Association	STAR Energy Storage Solutions	Member
Green Impact Academy	STAR Energy Storage Solutions	Member
Taiwan Chain Stores and Franchise Association	STAR Charger	Member
Taipei Parking Association	STAR Charger	Member
Renewable Energy Commercial Association of the R.O.C.	Star Trade	1. Director 2. International and Cross-strait Committee Vice Chairman
Green Electricity Cooperation Alliance	Star Trade	Member

2.3.2 Political Contributions and Lobbying GRI 415 Material Topic: Public Policy and Influence

Industry Forum Participation and Influence

As a leading enterprise in Taiwan's green energy industry, HD Renewable Energy actively participates in discussions on industry policy formulation and development strategies. In 2024, HDRE strengthened its brand influence through diverse activities, including three domestic and international exhibitions, four ESG-themed forums, three flash events, and hosting eleven visiting groups, engaging in in-depth exchanges with government agencies, industry peers, and international organizations, while sharing practical experience in fishery-solar symbiosis, smart grids, and green electricity trading.

Our senior executives delivered keynote speeches at major forums, not only demonstrating HD Renewable Energy's technical strength and innovative achievements but also offering recommendations for Taiwan's green energy industry policies, contributing to the improvement of laws, regulations, and systems, and optimizing the industrial environment.

Building on extensive practical experience, HDRE actively provides professional recommendations for renewable energy development regulations, Electricity Act amendments, and other policy initiatives. HDRE also promotes innovative technologies such as fishery-solar symbiosis and energy storage systems, enhancing the overall technical standards of the industry. We are committed to strengthening the international visibility of Taiwan's green energy industry, expanding cooperation opportunities with foreign enterprises, and establishing long-term partnerships with industry peers to jointly promote the sustainable development of the green energy ecosystem, contributing key strength to Taiwan's energy transition.

International Energy Exhibition Participation

Japan Smart Energy Week	Participated in the 20th Japan Smart Energy Week, showcasing the "Fishery-Electricity Symbiosis Solution" and strategically cooperating with Shihlin Electric to exhibit the "Solar-Storage-Charging Solution," actively deploying Japan's energy business.	
Taiwan International Smart Energy Week	With the theme "Exploring Smart Energy Points, Lines, and Surfaces, Connecting Global Energy Without Boundaries," significantly expanded exhibition scale, showcasing the company's global energy deployment and group's complete solutions, deepening public understanding of smart energy and sustainability concepts. This exhibition received 87 media reports with total online exposure of 1,236,251.	
Taiwan International Smart Mobility Show	First participation in the "Taiwan International Smart Mobility Show," exhibiting jointly with Shihlin Electric, attracting approximately 1,200 participants in on-site activities, receiving 153 media reports with total social media exposure of 441,799.	

Industry Forums and Summit Participation

2024 Renewable Energy Summit Forum	President Jason Chou delivered a speech titled "Change is the Only Path to Progress—HD Renewable Energy's Role in the Electricity Market," elaborating on the company's current situation response and future challenge strategy planning in the solar and energy storage markets, demonstrating active actions in green energy transition.	
2024 Shalun Green Energy International Forum and Exhibition	Chairman Edward Hsieh was invited to deliver a keynote speech on "Ecological and Energy Win-Win: Practical Application and Prospects of Fishery-Electricity Symbiosis Solutions," sharing the company's practical experience and future development strategies in the fishery-electricity symbiosis field, promoting domestic and international industry-research cooperation.	
ESG Sustainable Taiwan 4th International Summit	Participated in the sustainability summit hosted by "Business Today," inviting the Ministry of Economic Affairs, Carbon Disclosure Project (CDP), Taiwan Carbon Credit Exchange, Star Trade, and other units to discuss international carbon reduction trends and Taiwan enterprise carbon reduction practical experience. Star Trade is currently one of Taiwan's top five electricity retailers, with total contracted electricity reaching 13.9 billion kWh as of January 2024, serving clients spanning finance, semiconductors, telecommunications, and other industries.	
Taiwan Sustainability Series Forum	Participated in the green energy forum hosted by "Wealth Magazine," sharing corporate practical experience on energy transition, diverse green electricity applications, and charging market development. Star Trade CEO Ting-Yi Kuan presented "Marching Toward a New Green Energy Era, Creating a Green Electricity Navigation Guide" explaining corporate green electricity transition strategies. HDRE President Jason Chou presented "Sharing the Green Energy Economy, Targeting Charging Opportunities" elaborating on charging sector market deployment and operational results, actively promoting Taiwan's green energy industry toward internationalization.	

2.4 Business Integrity and Legal Compliance

Material Topic: Business Integrity and Legal Compliance

Material Topic:Business Integrity and Legal Compliance

Actual and Potential Impacts on Economy, Environment and People	Commitments and Results	Objectives
Positive Impacts (Opportunities)	**Company Policies and Commitments on Integrity Management and Legal Compliance**	**Short-term Objectives (1-2 years)**
• **Partnerships** The company's adherence to integrity management helps attract more partners • **Government Relations** Implementation of legal compliance can obtain support from competent authorities and local residents, accelerating site development schedules.	• **Transaction Principles** Avoid transactions with business counterparts involved in dishonest behavior and explicitly reject any form of improper benefit exchange • **Legal Compliance** Continuously update internal systems and procedures to comply with the latest laws and regulations in accordance with government requirements.	• **Policy Implementation** Implement integrity management policies and actively comply with government regulations • **Relationship Maintenance** Establish trust with competent authorities and investors.
Negative Impacts (Risks)	**2024 Results**	**Medium and Long-term Objectives (3-5 years)**
• **Corporate Image** Failure to comply with integrity management and legal compliance principles may lead to loss of investors and consumer distrust, severely damaging corporate image • **Operational Risk** Violations of regulations may result in work stoppages, contract disputes, etc., increasing development and operational costs.	• **Internal Advocacy** Personnel were assigned to promote the company's integrity management policy during internal training sessions, strengthening employees' awareness of anti-corruption and legal compliance. • **System Enhancement** **Sustainability information management has been incorporated into the internal control system** and will be implemented as a mandatory annual audit item starting from 2025.	• **Image Maintenance** Continue to maintain a good corporate image and sustain investor trust.

2.4.1 Business Integrity

GRI 2-26 GRI 205-1 GRI 205-2

The Company has established the "Integrity Management Code" and "Integrity Management Operating Procedures and Behavioral Guidelines," which explicitly state that company personnel shall neither directly nor indirectly provide, promise, request or receive any improper benefits, or engage in other dishonest acts that violate integrity, are illegal or breach fiduciary duties during the course of business activities. The Internal Audit Office has been designated as the dedicated unit, reporting to the Board of Directors, and is equipped with sufficient resources and qualified personnel to execute verification and supervision of various operating procedures, regularly reporting audit results to the Board of Directors and Audit Committee.

HDRE establishes appropriate supervision mechanisms to ensure the implementation of integrity management policies and takes necessary preventive and remedial measures. When discovering any violations of the Integrity Management Code, immediate action is taken and causes are reviewed to prevent similar situations from recurring. In business activities, we adhere to integrity management principles and establish contracts with agents, suppliers, customers, or other business partners, stipulating compliance with integrity management policies and contract termination clauses, thereby establishing a fair and transparent business environment and creating a sustainable business environment.

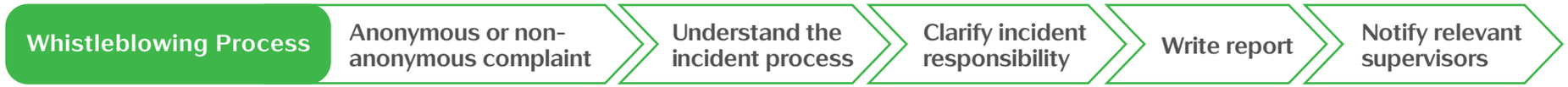
Education and Training GRI 205-2

Integrity management requirements for employees, customers, suppliers, and contractors have been established through corresponding management procedures. For example, the company's integrity management and anti-corruption policies are promoted through internal websites and email notifications; management-level personnel at the manager level and above are required to sign declarations of compliance with integrity management policies, and employee employment contracts include clauses for compliance with integrity codes.

Training Course	Course Description	Course Hours	Participants
"Sustainability Information Disclosure Policy Analysis" and Internal Control and Audit Key Points Workshop	This course explores the latest sustainable development regulations and internal control system revisions, helping senior executives and audit personnel adjust the company's internal control mechanisms and audit work. Strengthening information transparency and completeness is the cornerstone of corporate integrity management, ensuring sustainability reports and annual report disclosures comply with regulations and preventing fraud risks and corruption.	6	1
From Cases to the New Position of Internal Audit - The Intersection of Ethics and Law	Through actual case analysis, this course examines the interaction between ethics and legal compliance, cultivating audit personnel's professional competence in both virtue and talent. A sound internal audit mechanism provides supervision for corporate integrity culture, early detection of potential corruption risks, and ensures the ethical foundation for sustainable corporate operations.	6	1
Information Governance and Internal Control and Audit	Explores internal control design for information security, personal data protection, and trade secret maintenance, including regulatory responses to emerging AI applications. A comprehensive information governance system can prevent data misuse and improper disclosure, ensure transaction transparency, and is an important element in corporate integrity management and anti-corruption practices.	6	1

Whistleblowing Process

The company has established and published disciplinary and complaint systems for violations of integrity management regulations. On the company's internal website, we promptly disclose relevant information about violators, including their names, titles, violation dates, violation content, and handling status. We encourage both internal and external personnel to report dishonest or improper behavior. During the handling process, we strictly maintain confidentiality of the identities of both whistleblowers and those being reported, with only relevant personnel having the right to know. Once whistleblowing information is received, a tracking committee is established to conduct anonymous investigations, and a whistleblower protection system has been established in the Integrity Management Code and Whistleblowing and Complaint Procedures.



Whistleblowing Channels

Whistleblowers may file complaints through the following methods:
Complaint mailbox: hd.au@hdrenewables.com
Complaint hotline: 04-2255-8858#220
Receiving unit: Internal Audit Office

2.4.2 Legal Compliance GRI 2-27 GRI 206-1

HDRE is committed to ensuring compliance with all relevant laws and regulations. We regularly review changes in government regulations and conduct internal compliance assessments to ensure that internal procedures and policies align with the latest legal standards. HDRE has also established compliance systems and procedures, promoting legal compliance awareness among all employees through policy updates, employee training, and internal announcements. The company continues to strengthen internal awareness of legal compliance and regularly supervises the implementation status across departments. Additionally, for significant domestic and international policy or regulatory changes, consultants, lawyers, accountants, and other relevant professionals evaluate, recommend, and plan response measures to ensure HD Renewable Energy complies with the law and reduces adverse impacts on financial and business operations.

To cultivate a culture of integrity management, HDRE strictly monitors daily operations and actively promotes employee awareness of integrity, fairness, transparency, and self-discipline. We firmly believe that this approach helps prevent corruption and violations of laws and regulations in both social and economic activities. In 2024, there were no incidents related to anti-competitive behavior, antitrust, or monopolistic practices.

HDRE is also committed to complying with environmental protection policies by ensuring adherence to government and industry regulations while controlling and reducing environmental impacts. To this end, we have established multiple management procedures to ensure compliance across all operational sites. In 2024, there were no violations of any regulations.

In terms of intellectual property management, HDRE has established an intellectual property control table to periodically verify the status of various trademarks and encourages employees to apply for patents to enhance internal trademark management. Moving forward, we plan to establish comprehensive intellectual property management procedures to encourage employees across the group to comply with intellectual property regulations and strengthen IP awareness. HDRE will continue improving its contract management system, monitor contract progress, systematize document management, provide risk control advice to business units, and transform the corporate culture from business-driven to risk-aware and compliance-oriented.

Definition of Major Violation :

Bringing significant adverse impacts to the company, meaning the consequences of violations will have serious damage, loss, costs, expenses, or liabilities that significantly affect the operations, business performance, conditions (including business, technical, legal, or financial conditions), assets, or liabilities of the company and/or subsidiaries.

For detailed integrity management policies or operational management regulatory policies, please refer to the HD Renewable Energy official website - Corporate Governance.

2024 Legal Training

Course Name	Course Content	Participants	Course Hours
Workplace Unlawful Infringement Prevention Advocacy	This course details workplace unlawful infringement prevention regulations and corporate responsibilities, developing employees' ability to identify and prevent improper behavior. A comprehensive workplace ethics helps prevent abuse of authority, conflicts of interest, and other anti-competitive behaviors, ensuring company operations comply with regulatory standards.	68	1
Green Electricity Trading Market Practice Introduction	This course analyzes the green electricity contract trading regulatory framework and market operation mechanisms, as well as contract transaction pricing and application processes. Ensures corporate green electricity procurement processes comply with fair trade principles. Implements energy industry legal compliance responsibilities.	10	3
Management Must-Learn Practical Class: Understanding Various Labor Types and Common Disputes at Once	This course provides in-depth analysis of legal regulations and practical disputes regarding diverse labor types, helping managers correctly execute human resource management. Rigorous labor practices can prevent unfair competition and labor market monopolization, ensuring corporate personnel policies comply with regulatory requirements.	1	1
From Cases to the New Position of Internal Audit - The Intersection of Ethics and Law	This course explores the interaction between internal audit and legal compliance through practical cases, establishing comprehensive supervision mechanisms. An effective internal control system can detect and prevent internal anti-competitive behavior and market manipulation early, ensuring operations comply with fair trade regulations.	1	1

2.5 Risk Management

Risk control is a crucial key factor for enterprises pursuing stable growth and sustainable operations. HD Renewable Energy establishes, implements, and maintains internal control systems, collecting internal and external data and information to analyze risk factors that various departments may face, defining various types of risks and proposing corresponding management measures. Within acceptable risk ranges, we prevent potential losses and achieve optimal resource allocation to reasonably ensure the achievement of company strategic objectives. Ensuring the effective operation of risk control mechanisms is an important responsibility of the company's internal management, and we hope to internalize risk control into daily departmental management to ensure normal company operations and create maximum value for shareholders, employees, customers, society, and others, continuously achieving the company's sustainable operation objectives.

In recent years, the company has continuously improved its core technology self-sufficiency ratio, reduced external dependence, and constructed a cybersecurity protection architecture and backup system for cross-border network service systems. In 2024, due to group policy, the organization adjusted the R&D team to over 100 people. In the same year, the software service platform adopted independent planning and design, with nearly half developed independently, and planned cloud service cybersecurity procurement solutions, all uniformly controlled by the IT department, constructing system upgrades that comply with ISO27001 cybersecurity standards according to group policy. In the medium to long term, the company aims for zero external procurement of core technologies and full compliance with ISO27001 cybersecurity standards for all services.

2.5.1 Risk Management Mechanism

GRI 2-12 GRI 2-13 GRI 2-16

Risk Management Structure

Regularly report risk management status and audit results to the Board of Directors to facilitate the Board's risk supervision and guidance, reducing adverse impacts of risks on the organization.

Responsible Unit	Business Risk Management
Board of Directors	Approve overall risk management policies and major decisions.
Audit Committee	1. Fair presentation of the company's financial statements. 2. Effective implementation of the company's internal controls. 3. Company compliance with relevant laws and regulations. 4. Control of existing or potential company risks.
Remuneration Committee	Evaluate the company's remuneration policies and systems for directors and managers from a professional and objective position, and make recommendations to the Board of Directors.
Internal Audit Office	1. Ensure the internal control system can be continuously and effectively implemented, and assist management in fulfilling their responsibilities. 2. Assist the Board of Directors and management in formulating management policies and achieving operational objectives.

Key Event Risk Management

Risk control is a key factor for enterprises pursuing stable growth and sustainable operations. HD Renewable Energy establishes, implements, and maintains internal control systems, collecting internal and external data to analyze potential risks across departments, identifying key risk types, and defining corresponding management measures. Within acceptable risk levels, we aim to prevent potential losses and optimize resource allocation to reasonably ensure the attainment of strategic objectives. Ensuring the effective operation of risk control mechanisms is a key responsibility of the company's internal management, and HDRE aims to internalize risk control into daily departmental operations to ensure stable corporate operations and create maximum value for shareholders, employees, customers, society, and other stakeholders, while continuously advancing the company's sustainability objectives.

In recent years, the company has continuously increased its self-reliance in core technologies, reduced external dependence, and established a cybersecurity protection and backup system for cross-border network services. In line with group policy, the R&D team was expanded to over 100 members in 2024. In the same year, the software service platform was independently planned and designed, with nearly half developed in-house, and procured cloud security solutions under unified IT control. System upgrades were implemented in accordance with group policy to comply with ISO 27001 cybersecurity standards. In the medium to long term, the company aims to achieve zero external procurement of core technologies and full compliance with ISO 27001 cybersecurity standards across all services.

1. Operational and Market Risks

Risk Item	Risk Management Mechanism	Future Objectives	Board's Role	Managers	Reporting Frequency
Business Risk	1. **Market Strategy:** Increase market share and enhance brand exposure. 2. **Market Development:** Actively develop new sales targets to reduce sales concentration. 3. **Technology Optimization:** Implement AI systems to optimize power dispatch and demand forecasting.	1. **Market Expansion:** Develop production lines, increase customer diversification, and improve market share. 2. **System Efficiency Enhancement:** Continue to improve power dispatch accuracy, optimize systems to increase matching benefits. Ensure stable supply and cost control.	1. Regularly convene financial model analysis meetings 2. Receive reports from the management team for awareness and supervision	CEO Asset Management Department Business Department Star Charger Star Energy Storage Solutions HB O&M	Weekly/ Quarterly
Supply Chain Risk	1. **Raw Material Management:** Monitor raw material price fluctuations, plan hedging strategies, and formulate procurement strategies. 2. **Supplier Management:** The procurement department contacts multiple suppliers to understand market demand.	**Supply Chain Optimization:** Collaborate with R&D capacity, allocate appropriate materials, equipment, and development items based on site characteristics.	Review investment/bidding proposals	CEO Procurement Department Project Management Department Engineering Department	Weekly

1. Operational and Market Risks

Risk Item	Risk Management Mechanism	Future Objectives	Board's Role	Managers	Reporting Frequency
Policy and Competition Risk	1. **Policy Monitoring:** Actively monitor policy changes, adjust pricing strategies and market positioning, strengthen brand value and differentiated competition. Collaborate closely with policy-making units and the company's legal department to ensure compliant operations. 2. **Competition Strategy:** Strengthen brand value and differentiated competition, regularly review and optimize service processes, improve service quality and brand image, strengthen customer relationships and after-sales service.	1. **Policy Adaptability:** Establish flexible mechanisms to respond to policy changes and maintain market competitiveness. Maintain operational pace synchronized with policy development to ensure business is legal and compliant, reducing risks. 2. **Market Positioning Strengthening:** Establish solid competitive advantages in the market through differentiation and high-quality services.	Review investment/bidding proposals	Department Star Trade	Weekly
Talent Development Risk	1. **Talent Development:** Regular performance evaluation system, review employee capabilities and provide strengthening objectives, recommend promotions based on evaluation results. 2. **Core Technology Retention:** Invest in industry R&D with professional teams to ensure self-owned core technologies. 3. **Personnel Stability:** Exit interviews and data analysis, establish employee relations and complaint handling mechanisms. 4. **Friendly Environment:** Regularly evaluate and improve management systems to create a safe and respectful work environment.	1. **Career Planning:** Establish promotion standards and conditions, create separate advancement channels for management and technical tracks. 2. **R&D Capability Enhancement:** Establish professional R&D teams based on industry aspects and market demands, improve core technology self-development. 3. **Employee Satisfaction:** Reduce turnover rate, improve employee satisfaction, strengthen career development opportunities and benefit systems.	1. Support organizational development and talent retention systems. 2. Establish market analysis and product development review mechanisms. 3. Maintain core technology self-sufficiency rate.	Human Resources Department Intelligent Services Department Beseye Cloud Security	Regular meetings

2. Safety and Compliance Risks

Risk Item	Risk Management Mechanism	Future Objectives	Board's Role	Managers	Reporting Frequency
Occupational Safety, Health and Environmental Risk	1. Safety Education: Conduct occupational safety and health education training for on-site construction personnel. 2. Safety Management: Complete and submit safety and health forms, implement site inspection and management. 3. Regular Tracking: Implement construction logs and strengthen progress tracking for each work shift, update management progress schedules. 4. Standardization of Operations: Conduct operations and self-inspections according to standard operating procedures. Implement emergency response drills and post-incident inspections to prevent risk escalation. 5. Legal Compliance: Quarterly regulatory review and identification to ensure compliance with legal requirements.	1. Professional Management:Dedicated personnel management by the EHS Office. 2. Environmental Commitment: Implement and promote management system requirements in all work areas (including sites). Achieve commitment to a safe and healthy work environment for personnel. 3. Regulatory Promotion: Electronic regulatory review system with regular announcements. 4. Supplier Management: Implement contractor	Receive reports from the management team for awareness and supervisiona	EHS Office	Daily
Product Safety Risk	1. Safety Monitoring: Implement real-time current monitoring and anomaly warning systems to reduce accident risks. 2. Regular Inspection and Testing: To ensure safety of energy storage equipment and systems at sites, establish Standard Operating Procedures (SOPs), regularly perform monthly, quarterly, and annual equipment inspections, and conduct on-site acceptance tests (periodic tests) every 2 years. 3. Risk Transfer: Purchase equipment liability insurance and establish incident handling mechanisms.	1. Certification Compliance: Achieve 100% safety compliance certification for charging stations, ensuring compliance with government and international standards. 2. Smart Management: EMS energy management system responsible for real-time monitoring and optimizing charge/discharge strategies, providing high-quality stable frequency regulation in Taipower's ancillary service market, implementing high-standard cybersecurity architecture to ensure system security and operational stability	Receive reports from the management team for awareness and supervision	Star Charger Product Manufacturing Department	Monthly

2. Safety and Compliance Risks

Risk Item	Risk Management Mechanism	Future Objectives	Board's Role	Managers	Reporting Frequency
Legal Risk	1. **Information Protection:** Strictly control customer information to maintain customer privacy. Avoid legal disputes and reduce company reputation damage risks. 2. **Legal Promotion:** Regularly conduct workplace ethics and legal training to enhance employees' legal awareness and self-protection capabilities. 3. **Legal Consultation:** Establish internal regulations and provide legal opinions on contracts and legal documents. 4. **Fair Investigation:** For illegal behavior, conduct swift investigations and adopt transparent, fair handling processes to ensure fair treatment of every employee.	1. **Regulatory Updates:** Rolling review when new regulations are introduced. 2. **Systematic Management:** Establish internal regulations to institutionalize policies, urge departments to comply and implement to reduce risks.	Receive reports from the management team for awareness and supervision	Legal Department	As needed
Quality Risk	**Quality Control:** During construction, the Quality Control Office conducts material/equipment quality acceptance, Engineering Department supervises contractor construction quality; during acceptance, Project Department or third-party personnel conduct acceptance with relevant departments; during operation, contractors provide warranty improvements.	**Supplier/Contractor Screening:** Filter high-risk vendors through procurement supplier/contractor evaluation mechanisms, reducing product quality anomaly risks.	Receive reports from the management team for awareness and supervision	Office Procurement Department	Monthly
Quality Risk	1. **System Protection:** Incorporate into system design principles, including establishing firewalls and whitelist system architecture to reduce information leakage risks via networks. Conduct regular cybersecurity health checks. 2. **Personnel Training:** Regular employee cybersecurity education training. 3. **Data Protection:** Use internationally certified cloud service providers for system construction, establish comprehensive system and data backup services, strictly control customer information to maintain customer privacy and avoid legal disputes. 4. **External Verification:** Continue to obtain ISO 27001 international certification.	1. **Professional Management:** Cybersecurity professional team continuously updates cybersecurity standards. 2. **Cloud Collaboration:** Continue cooperation with internationally certified professional cloud service providers to obtain comprehensive backup services.	1. Receive reports from the management team for awareness and supervision 2. Support various cybersecurity investments to reduce cybersecurity risks.	CEO Intelligent Services Department IT Department Star Charger	Monthly

3. Environmental and Social Risks

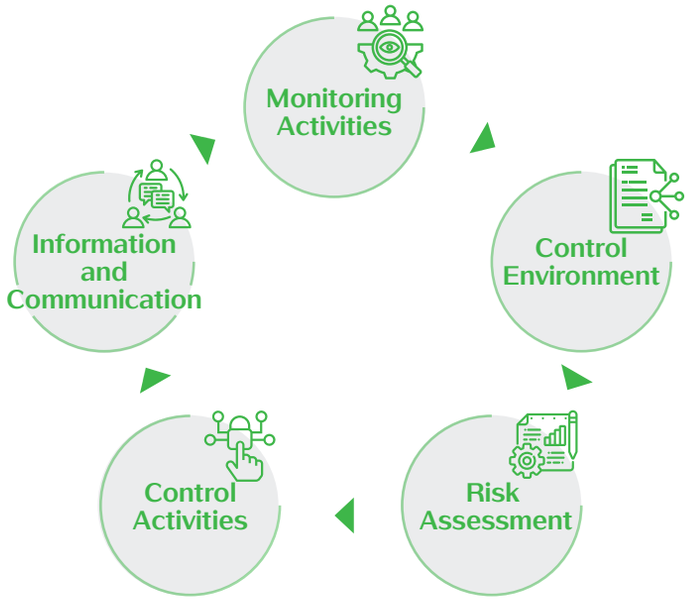
Risk Item	Risk Management Mechanism	Future Objectives	Board's Role	Managers	Reporting Frequency
Local Resident/ Environmental Group Protest Risk	**Community Communication:** Conduct land sensitivity inquiries with relevant administrative units during early development stages. Hold local briefing sessions to obtain consent evidence, ensuring compliance with regulatory requirements.	**Community Harmony:** Proactively communicate with local stakeholders to ensure both parties fully understand development matters and strive to avoid misunderstandings.	Receive reports from the management team for awareness and supervision	Business Department Star Aquaculture Engineering Department	Quarterly operational reports
Biodiversity Risk	**Environmental Assessment:** Conduct environmental and social review assessments to confirm impact scope. Conduct land sensitivity analysis, water quality and ecological surveys.	**Ecological Protection:** Strive to reduce environmental impact and ensure sites do not involve sensitive areas.	Receive reports from the management team for awareness and supervision	Engineering Department Business Department	Quarterly operational reports
Natural Disaster Risk	1. **Disaster Prevention Mechanism:** Strengthen disaster and flood prevention mechanisms to minimize power generation equipment losses. Implement site risk management and conduct operations and self-inspections according to standard operating procedures. 2. **Product Preservation:** Early harvest of aquaculture products for processing and preservation.	1. **Seasonal Prevention:** Strengthen protective measures before rainy seasons or typhoons. 2. **Product Diversification:** Develop processed and frozen products that can be preserved.	Receive reports from the management team for awareness and supervision	Engineering Department Star Aquaculture HB O&M	As needed
Climate Change Risk	1. **Data Monitoring:** Provide monthly post-event data, review operation and maintenance and power generation reports semi-annually to monitor site power generation health. Combine weather and environmental factors for AI power generation forecasting. 2. **Power Generation Management:** Regularly review power plant conditions and ensure stable power supply and green electricity contract fulfillment.	1. **Forecast Optimization:** Continuously optimize data analysis and AI forecasting mechanisms, improve power supply stability. 2. **Risk Reduction:** Strengthen self-owned site management and solidify cooperation with power generators to reduce climate risk impacts.	Receive reports from the management team for awareness and supervision	Asset Management Department HB O&M Star Trade	Quarterly operational reports

2.5.2 Internal Control

The Company has established an enterprise risk early warning principle and policy in accordance with the Financial Supervisory Commission's "Regulations Governing Establishment of Internal Control Systems by Public Companies," integrating eight internal control operating cycles and management systems to establish a sound and efficient internal control system.

The audit focus is on evaluating whether each company unit has effectively implemented the internal control system and management procedures. The Board of Directors passed the "Sustainability Information Management Measures" and "Operating Procedures for Preparation and Assurance of Sustainability Reports" on 2024/12/23, which will be listed as mandatory annual audit items starting from the following year, with audits scheduled for September 2025. As of the date of this report (2025/03/11), no major deficiencies have been found during audit operations.

Five Elements of Internal Control System



Internal Control Process

Set an annual plan	Execute monthly audits according to the plan	Collect audit data from relevant units following the audit procedures
Conduct interviews and reviews in accordance with internal control policies and management regulations	Communicate with the audited units based on the results of interviews and data reviews, and prepare audit reports	Regularly submit audit reports to independent directors and report to the Audit Committee and the Board of Directors

2.5.3 Information Security Management

While advancing the green energy transition, HDRE places equal emphasis on information security. HD Renewable Energy has established an IT Department and an Information Security Committee responsible for planning, implementing, supervising, and enhancing information security management. We have established multiple layers of control and protection mechanisms across servers, operating systems, and network infrastructure to prevent disasters, data loss or corruption, and the theft of confidential information. In the event of a cybersecurity incident, the company has established an Information Security Incident Emergency Response Plan to ensure the rapid restoration of normal operations. HDRE also attaches great importance to physical security and the prevention of malicious data leakage, theft, or recording of company information.

HDRE invested NT$ 8,010,000 in information security management in 2024 and has budgeted NT$ 10,000,000 for 2025 to further strengthen information security and reduce the risks of hacking and cyberattacks. Since 2024, HDRE has implemented an Information Security Management System (ISMS). Through comprehensive planning, implementation, monitoring, and continuous improvement, the company successfully obtained ISO/IEC 27001:2022 certification on December 7, 2024, thereby providing secure and reliable smart energy services to global customers and partners while ensuring the confidentiality, integrity, and availability of information. In 2024, the Chairman signed the HD Renewable Energy Information Security Management Policy, adopting a PDCA (Plan-Do-Check-Act) cycle to establish an effective information security management system, ensuring the smooth and effective operation of information security management and its continual improvement.

Information security performance is regularly reported to the Board of Directors to ensure the secure use of information and maintain a trustworthy information environment. Through these efforts, HDRE reported no major information security incidents in 2024.

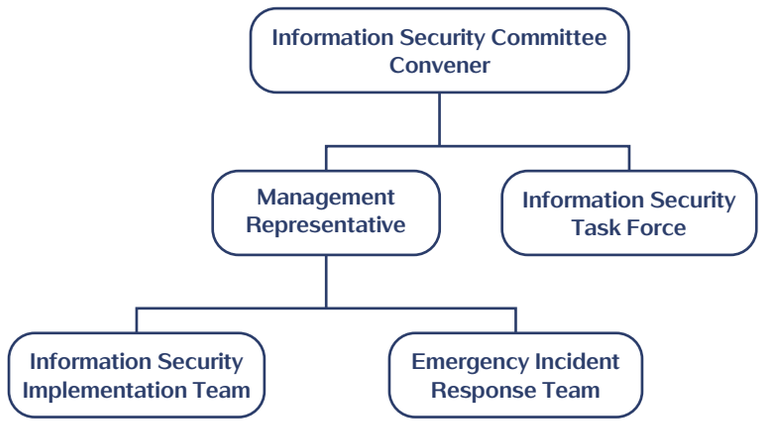
HDRE Obtains ISO 27001
International Cybersecurity Certification

Information Security Architecture

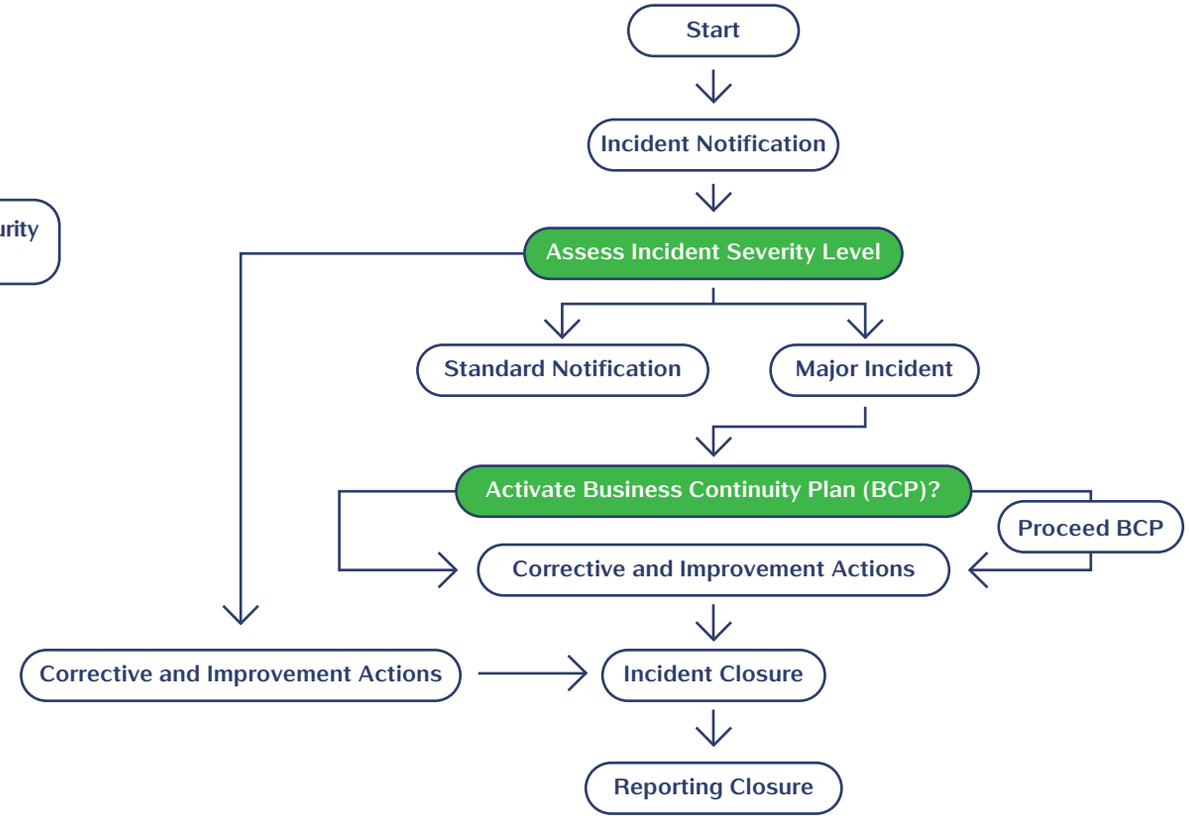
HDRE has established an IT Department and a cybersecurity promotion team responsible for planning, implementing, supervising, and enhancing information security management. We have established multiple layers of control and protection mechanisms across servers, operating systems, and network infrastructure to prevent disasters, data loss or corruption, and the theft of confidential information. In the event of a cybersecurity incident, the company has established an Information Security Incident Emergency Response Plan to ensure the rapid restoration of normal operations. Additionally, HDRE attaches great importance to physical security and the prevention of malicious data leakage, theft, or recording of company information.

Currently, the management representative of the Information Security Committee is the Deputy Director of the IT Department, responsible for overseeing the effectiveness of the company's cybersecurity management system. Under the committee, two functional teams have been established: the Information Security Implementation Team and the Emergency Incident Response Team. The former consists of the IT Department Manager and three engineers, assisting in promoting and implementing information security initiatives. The latter comprises the IT Department Assistant Manager and two engineers, serving as the contact point for cybersecurity incident reporting. Task-based groups are formed as needed to jointly support emergency responses according to incident severity and operational requirements.

Information Security Architecture



Information Security Incident Reporting Process



Information Security Risk Management

To implement information security management, we conduct relevant protection control measures according to the company's internal control system information security checks at the policy level, comprehensively implementing confidential document encryption systems to reduce leakage risks. At the technical level, we strengthen the use of information technology and adopt technological and organizational protection measures to manage confidential business data, covering core technologies, business secrets, and customer personal information. Additionally, we have established network firewalls, email security systems, and virus protection systems, promoting information security management from multiple angles, with internal audit personnel and independent audit units evaluating information security policies at least once.

HDRE regularly promotes awareness among internal colleagues through email, not only requesting colleagues not to install unauthorized software but also planning education and training with simultaneous drills to strengthen colleagues' cybersecurity concepts, enabling us to more comprehensively and properly prevent and respond to cybersecurity risks.

Information Security Risks

Risk Category	Operational and Financial Risks to the Company	Risk Management Measures
Network Security	Targeted and random network attacks may cause system service interruptions or paralysis, thereby affecting revenue.	1. International Certification: The company has obtained ISO27001 international cybersecurity certification, which can avoid most cybersecurity risks. 2. System Protection: According to company cybersecurity standards, incorporated into system design principles, including firewalls, isolated servers, and load balancing system architecture to strengthen system resilience. 3. Established SOPs for virus attack prevention mechanisms.
Data Security	Targeted theft and random ransomware may cause operational information leakage for customers and the company, thereby reducing brand trust and potentially facing legal compensation and operational losses.	
System Stability	System and data damage may cause loss of R&D results or irreversible systems, potentially causing service interruptions affecting revenue and reducing customer trust.	1. Backup Systems: Built through cloud services to avoid risks of physical equipment management and damage. 2. Technical Assurance: Using services from internationally certified cloud server providers for system construction, with comprehensive system and data backup services to avoid losses from equipment damage.

Personal Data Protection

The Company values "customer privacy protection," complying with the "Personal Information Protection Act," establishing "Personal Data Protection Management Procedures," and implementing strict personal data privacy security management and protection measures. We have constructed a data governance system, establishing data standards and classifications, implementing data access permission controls and data owner review mechanisms, ensuring proper governance and protection of data access and sharing, as well as data availability, integrity, and confidentiality.

The Company designates Mr. Yen-Kai Liao from the Finance and Accounting Department as the policy responsible person. The scope of this policy covers all branches, operating locations, subsidiaries, customers, and suppliers. The Company's privacy protection policy is as follows:

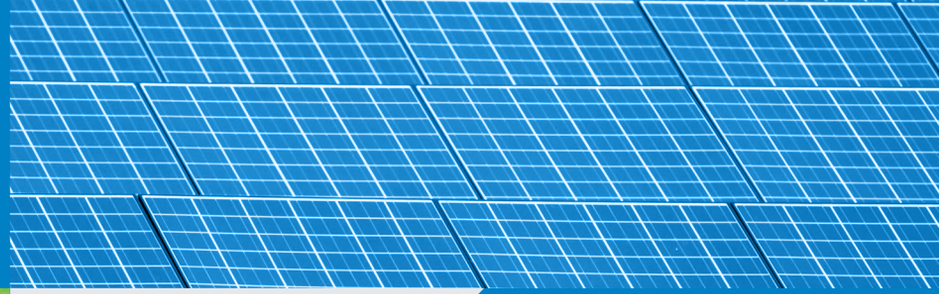
2024 Personal Data Protection Policy Results

Employee Personal Data Protection Training Course

- Total course completion: **344** people
- Total course hours: **2** hours
- Trained employees as percentage of total: **95%**
- Post-training test pass rate: **100%**

Incident Response and Risk Management

Zero violations of Personal Information Protection Act incidents occurred this year. If employees engage in improper behavior, they must face varying degrees of punishment including job adjustments and dismissal based on the severity of the situation.



03

Sustainable Innovation and Smart Green Technology

CH3 Sustainable Innovation and Smart Green Technology

Core Vision and Commitment

With extensive experience in solar photovoltaic systems, HDRE continues to develop and construct various types of power generation sites. Through professional site monitoring systems, we maintain real-time control over power generation conditions and provide customers with comprehensive renewable energy advisory services, helping users obtain the most suitable and stable green energy resources. As the global trend toward electrification of transportation vehicles accelerates, electric vehicle charging has become an important power consumption market, and charging stations have become essential electricity sales channels. In response to the challenges that the intermittent characteristics of renewable energy bring to grid stability, and to meet customers' urgent needs to achieve RE100 goals, HDRE has included energy storage investment as a key operational planning priority.

In 2024, HDRE comprehensively deployed, gradually shifting its development focus from engineering construction to smart grid development, actively advancing toward the 2050 net-zero emission goal. This chapter will detail HDRE's practices and achievements in building green energy infrastructure, providing smart energy services, and deploying smart grids.

2024 Results and Performance

01 In 2024, the grid-connected capacity of photovoltaic sites reached **400MW**, with 160MW under construction

02 Star Charger's fast charging operational stations went online at **117** sites, with contracts signed for 163 stations in cooperation with City Parking

03 Star Energy Storage's energy storage sites have **60MW** online capacity, with **199MW** under construction

04 HDRE invested NT$148,196,995 in R&D, accounting for **1.05%** of revenue for the first time

05 Star Trade's total contracted green electricity sales exceeded **16.1 billion kWh**

3.1 Green Energy Aggregator

Material Topics: Innovation R&D and Management, Product Quality and Responsibility

Material Topic: Innovation R&D and Management

Impact on Economy, Environment and People	Commitments and Results	Targets
Positive Impact (Opportunities)	Company Policy and Commitment to Innovation R&D and Management	Short-term Goals (1-2 years)
• **Technology Development:** Continue investing in artificial intelligence (AI) in smart energy fields, maintaining market competitive leadership • **Cloud Technology:** Develop cloud service technology, having the most comprehensive IT and AI talent in the energy sector	• **Corporate Vision:**Make renewable energy a convenient and essential part of daily life. • **Development Goals:** Target becoming an international smart power company, continuously investing in human resources and funding to create company leadership in power-related fields • **Resource Investment:** Continue expanding investment in R&D and innovation	• **R&D Investment:** Minimum NT$50 million annual R&D funding
Negative Impact (Risks)	2024 Results	Medium to Long-term Goals (3-5 years)
• **Operational Risk:** Encountering intellectual property issues, key component shortages, system security vulnerabilities may lead to operational interruptions and cost increases • **Technology Dependency:** If we do not develop our own technology, key information may fall into others' hands, or we may fail to become a leading brand	• **Information Security Certification:** System services comply with information security architecture announced by government agencies and achieve ISO27001 information security standards • **Platform Development:** In response to Star Trade's needs, developed Green Power Square and Green Power Smart Exchange cloud platforms to assist customers with contract management and green electricity matching	• **Technical Leadership:** Differentiate technology, functions and services in the market, achieve leading position in IT technology, enhance market share • **Corporate Development:** Continue relevant R&D, support concept verification and basic research, committed to becoming an international smart power company

Material Topic: Product Quality and Responsibility

Impact on Economy, Environment and People	Commitments and Results	Targets
Positive Impact (Opportunities)	Company Policy and Commitment to Product Quality and Responsibility	Short-term Goals (1-2 years)
• **Environmental Performance:** Promote circular economy, enhance environmental energy performance • **Risk Management:** Ensure construction process quality and reduce environmental impact • **Circular Economy:** Reduce environmental impact • **Full Participation:** Promote contractor participation in quality control	• **Risk Management:** Convene contractors for quality and environmental safety briefings before construction • **Construction Control:** Ensure construction process quality and reduce environmental impact • **Circular Economy:** Reduce environmental impact • **Continuous Improvement:** Continuously improve activities for environment, safety, health and energy efficiency	• **Quality Monitoring:** Establish annual quality KPIs and conduct regular reviews • **Acceptance Standards:** Achieve 100% site factory acceptance and sampling inspection • **Quality Goals:** Less than 5 quality deficiency notices per site
Negative Impact (Risks)	2024 Results	Medium to Long-term Goals (3-5 years)
• **Environmental Assessment Risk:** Environmental and Social Due Diligence (ESDD) related issues • **Engineering Concerns:** Construction quality impacts may lead to soil liquefaction • **Abnormality Risk:** Increase possibility of quality abnormalities during contractor construction operations	• **Pre-construction Management:** Convene contractors for quality and environmental safety issue briefings • **Regulatory Requirements:** Clearly remind of regulations that must be complied with • **Environmental Protection:** Avoid impacts on surrounding environment during later power generation	• **System Construction:** Internal electronic quality management system platform • **Certification Optimization:** Sites complete ISO 9001 management system certification • **Capability Enhancement:** Assist subsidiaries and contractors in quality management capability

HDRE encompasses five major business units - power development and engineering, asset management, smart power services, brand management division, and power trading - advancing in the green energy transformation field. Starting from engineering development and EPC construction, by 2024 the cumulative installed capacity reached 400MW, and the planned completion volume for 2025 is expected to reach over 150 MW by 2025, making us one of Taiwan's leading photovoltaic operators. The company has a complete site development and engineering team, effectively controlling site investment risks, capable of customized site construction and providing operations and post-investment management, with completed grid-connected and developing sites spanning Taiwan and offshore islands.

In the future, HDRE will uphold SDG 7 Affordable and Clean Energy as our goal, continuously improving integrated intelligent services, popularizing green electricity and advancing toward becoming a smart green energy company.

3.1.1 Power Plant Operations, Vertical Integration

HDRE acts as a vertically integrated provider in the solar photovoltaic industry. Providing complete supporting services to meet customers' comprehensive needs. Our team consists of cross-disciplinary professional talent. From the initial site development stage, we conduct geographical condition analysis to assess construction feasibility, confirm regulatory permits and evaluate financial and related risks, while providing professional legal consulting services.

Through in-depth discussions with customers, our design team plans customized sites, our in-house engineering team carries out land preparation, pile installation, cable works, and construction through to completion and grid connection. HDRE's professional team also provides operations, maintenance, and investment management throughout the 20-year operational lifecycle of each plant.

Solar Photovoltaic Site Construction Goals

As of 2024, cumulative installed capacity reached
400MW

2025 full-year planned construction volume[1]:
150+MW

Estimated development capacity before **2030**[2]:
1.5GW

Comprehensive Professional Service Advantages

HDRE delivers high-reliability solar PV plants.Through comprehensive cross-disciplinary, vertically integrated services, we reduce risks and costs across project development and EPC phases. To accelerate PV deployment, we collaborate with industry peers to establish a collaborative division-of-labor model and mutual-support ecosystem. During the promotion process, we deeply understand customer needs and maintain good interactive communication with public agencies and local residents, effectively reducing engineering delay risks.

Currently, HDRE owns rooftop, ground-mounted, and floating types of sites in the following counties and cities: New Taipei City, Taoyuan City, Hsinchu County, Miaoli County, Changhua County, Taichung City, Yunlin County, Chiayi County, Tainan City, Kaohsiung City, Pingtung County, Hualien County, Taitung County, Yilan County, and Penghu County.

1. Capacity is estimated based on the construction ratio of scheduled plans.
2. Site development rights are still subject to factors such as policy and regulatory approval, and do not represent the company's actual construction plans.

Solar Photovoltaic Site Construction Performance

Site Category	Cumulative Installed Capacity in 2022(kW)	Cumulative Installed Capacity in 2023(kW)	New Installations in 2024	Cumulative Installed Capacity in 2024(kW)
Ground – mounted PV Systems	228,307.62	267,486.15	10,951.23	278,437.38
Roof PV Systems	19,277.9	19,277.69	5,670.13	22,760.64
Floating photovoltaic sites	59,731.88	59,731.88	No new installations	59,731.88
Fishery-electricity symbiosisphotovoltaic sites	1,995.88	44,799.29	143,257.9	44,799.29
Cumulative Installation Capacity	309,313.07	391,295.01	159,879.26	405,729.19

Benchmark Project

Yunlin Gukeng - Ground-mounted Solar Photovoltaic

- Area: 25.3 hectares
- Installed Capacity: 29.4MW
- Power Generation: Estimated 42 million kWh annually
- Completion Time: Grid connection in December 2023

Tainan Qigu - Fishery-Electricity Symbiosis Solar Photovoltaic

- Area: 57.7 hectares
- Installed Capacity: 42.8MW
- Power Generation: Estimated 65 million kWh annually
- Aquaculture Species: White shrimp, black mullet, milkfish
- Completion Time: Grid connection in December 2023

Hualien Xiulin - Energy Storage E-dReg

- Area: 1.4 hectares
- Completed Installed Capacity: 20MW grid connection in June 2024
- Under Construction Capacity: Expected additional 40MW grid connection in April 2025

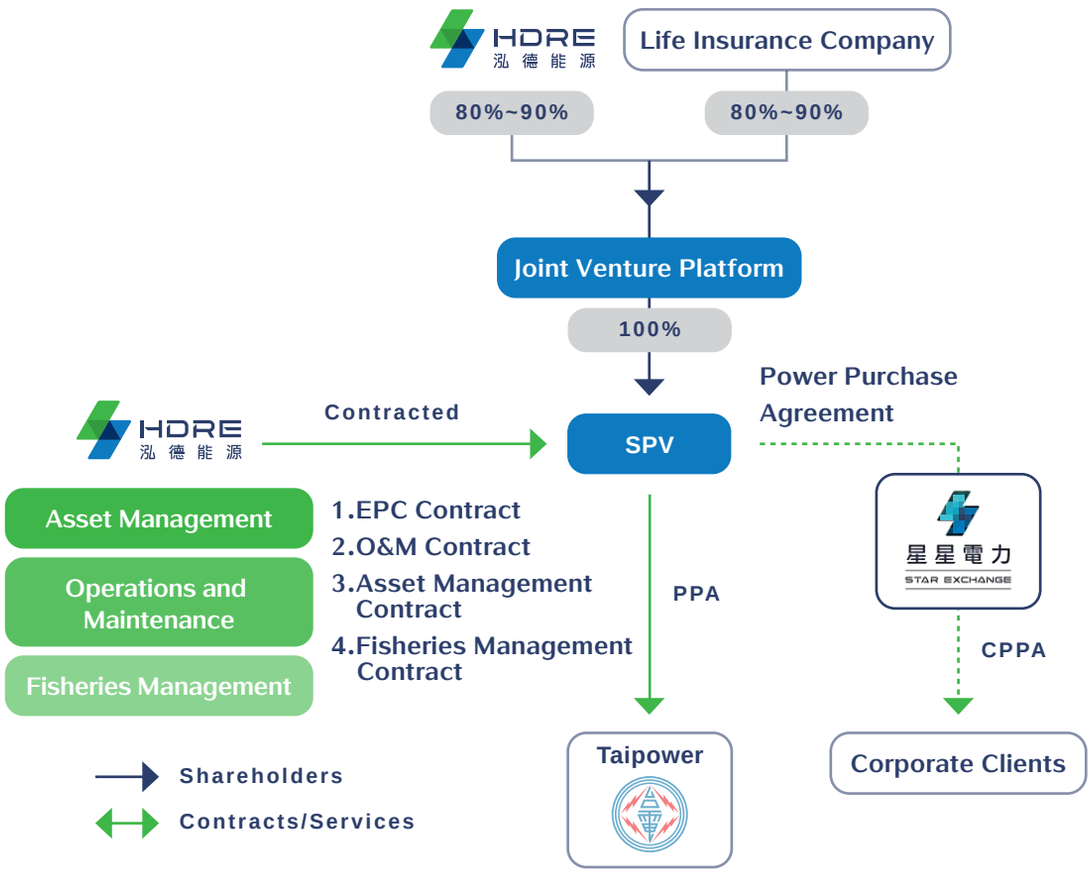
Pingtung Chaozhou - Energy Storage E-dReg

- Area: 1.4 hectares
- Installed Capacity: 99MW
- Completion Time: Expected early 2026

Asset-Light Business Model Advantages

HDRE's unique asset-light business model brings key competitive advantages. Through a strategy that separates ownership from operational rights," we reduce our own energy capital investment needs while attracting life insurance companies and other financial institutions as long-term partners. Life insurance companies value the stable long-term returns of renewable energy, while we provide complete professional services for site development, construction investment, and operations management.

This asset-light model enables us to maintain operational control while successfully establishing a composite platform with managed assets expected to exceed NT$65 billion, providing one-stop services from project development to operational management, effectively managing risks and generating stable, long-term returns for shareholders.



Joint Venture Site Development

Star Power Energy Corporation

- Investment Project: Ground-mounted photovoltaic
- Installed Capacity: 98.9MW

Aqua Star Energy Corporation

- Investment Project: Fishery-electricity symbiosis photovoltaic
- Installed Capacity:Phase 1: 74 MW, phase 2: 163 MW

Star Energy Storage CO., LTD.

- Investment Project: Grid-scale energy storage
- Installed Capacity: 101MW

Fubon Green Power CO., LTD. (2024 new site)

- Investment Project: Solar photovoltaic + grid-scale energy storage
- Installed Capacity: Photovoltaic 350MW, Energy storage 350MW

3.1.2 HB O&M Co., Ltd. Maintenance Management

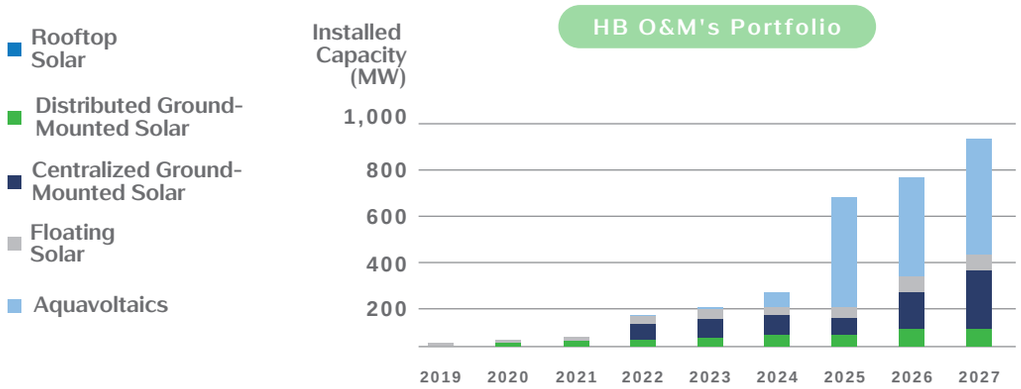
Professional Maintenance Management Services

HDRE's subsidiary "HB O&M" is responsible for providing operations and maintenance (O&M) services for power plants. Through quarterly inspections and annual maintenance, combined with intelligent monitoring and data analysis technology, we provide individualized maintenance services for different power plants. Service site types cover rooftop, ground-mounted, and floating types, providing customers with comprehensive support for power plant operations and daily maintenance.

By leveraging advanced communication technologies, we maintain real-time oversight of generation performance through site monitoring systems. Once we receive alert notifications from mobile apps, we can quickly dispatch personnel for troubleshooting, while executing rigorous regular inspections and preventive maintenance operations. Our service targets include internal self-owned assets as well as sites entrusted by customers (including affiliated companies not consolidated in financial statements), and we provide formal maintenance reports quarterly for professional communication with owners.

2024 Power Plant Maintenance Results

In 2024, HB O&M managed operations and maintenance for about 200 solar PV plants with a combined installed capacity of 282 MW. The photovoltaic site types include rooftop, floating, ground-mounted, and composite fishery-electricity symbiosis types. Energy storage power plant maintenance projects will be gradually added later.



HB O&M's maintenance services have obtained TÜV NORD certification, an international third-party verification, confirming maintenance quality assurance measures and technical capabilities to conduct high-efficiency operations and to mitigate investment risks for project owners.

O&M Management for HB O&M's Solar PV Portfolio

Customer	Number of Sites	Cumulative Installed Capacity (KW)		
		2023	2024	Growth Rate
Self-owned sites (consolidated entities)	18	14,871.66	14,871.66	-
Non-consolidated related enterprises	85 (+1)	91,699.72	134,567.72	147%
External customers (non-related parties)	96 (+1)	129,285.34	132,768.29	103%
Total	199 (+2)	235,826.72	282,207.67	120%

Professional power plant Maintenance Risk Management

Maintenance Risk Identification and Control

HDRE's maintenance team has established a comprehensive risk identification and control system. Main maintenance risks can be categorized into two major categories: climate environmental risks and maintenance quality risks.

Climate environmental risk management integrates comprehensive protection strategies for natural disasters and environmental factors. For extreme weather such as typhoons and heavy rains, the company confirms hundred-year flood lines during site planning stages and adjusts construction structures based on historical flooding data, particularly optimizing inverter equipment configuration heights and drainage system design. Facing salt corrosion challenges in offshore areas, we select specialized anti-corrosion modules and brackets, strengthen structural corrosion resistance protection, and add waterproof protection for cable connections. However, regular cleaning maintenance and efficiency monitoring are still needed to ensure systems maintain optimal power generation efficiency under various environmental conditions. Additionally, protective measures are implemented before each typhoon season to secure site equipment, and structural safety confirmation is conducted for sites in relevant areas after earthquake or typhoon warnings.

HB O&M has obtained TÜV NORD maintenance certification at the highest AA level, including on-site personnel operating procedures, safety system establishment, equipment and measuring instrument specifications and testing, monitoring system functionality and operations, warehouse spare parts management mechanisms, and internal operational process and data management, all meeting maintenance certification requirements with regular spot checks on implementation status.

Risk Management Benefits and Future Development

Through systematic risk management mechanisms, HDRE strengthens site disaster resilience and enhances maintenance management professionalism and service competitiveness. The company continues to develop climate risk real-time warning systems, establish construction quality issue databases, and research anti-salt and anti-corrosion technologies. Future plans include optimizing post-disaster repair processes, establishing module efficiency degradation prediction models, and formulating standardized site construction specification manuals to provide customers with higher quality maintenance services.

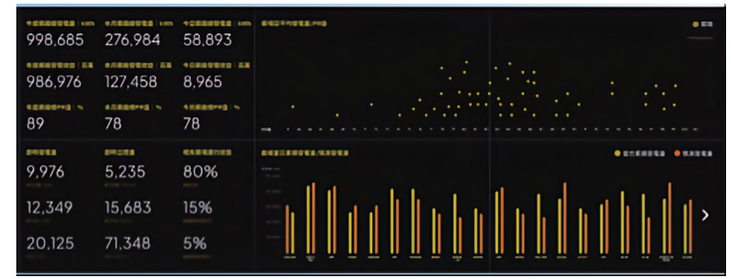
Professional Maintenance Cycles and Items

To ensure high-efficiency power plant operation, stable power generation, and timely resolution of abnormal conditions, HB O&M's maintenance team executes inspections and maintenance at different frequencies:

Daily	Monthly	Quarterly	Annually
Monitor site status through monitoring systems; if equipment abnormalities occur, dispatch personnel immediately for on-site confirmation and repair	Conduct on-site inspections according to site needs and perform monthly site power generation status and abnormality cause analysis as reference for future preventive improvements	Schedule module cleaning and environmental maintenance (weed removal/tree trimming) according to site needs, conduct site equipment numerical inspections, provide quarterly reports to customers, and adjust work arrangements or provide optimization suggestions based on data	For high-voltage and extra-high-voltage equipment, conduct power-off testing and cleaning maintenance according to electrical regulations frequency requirements

Smart Monitoring System Development

HDRE completed development of the "HD Site Monitoring System" in 2020, which can comprehensively monitor solar power plant operating conditions, solar irradiation, environmental temperature, power generation, node voltage and current, and equipment stability, while automatically calculating performance efficiency to detect real-time anomalies. Being an in-house developed system, it has higher flexibility in information integration for electricity, personnel scheduling, and data simulation. Currently, self-owned projects and most customers' monitoring use this system for daily site monitoring.



To enable faster site operations and management, HB O&M has also developed a dispatch system app, allowing supervisors and on-site personnel to track and respond to site anomalies in real time for efficient personnel scheduling and dispatch, and clearly record on-site repair processes in maintenance record sheets as subsequent maintenance reports for owners and analysis and preventive measure directions for future abnormalities.

Future Goals and Planning

HDRE will continue to enhance the quality of maintenance management services. In the short term, we will focus on focus on intelligent upgrades to monitoring systems, strengthen predictive maintenance capabilities, expand the service scope to include maintenance of energy storage systems. and increase module cleaning frequency and methods. Through standardized maintenance process establishment and optimization, we expect to significantly improve service consistency and efficiency, creating higher value for customers.

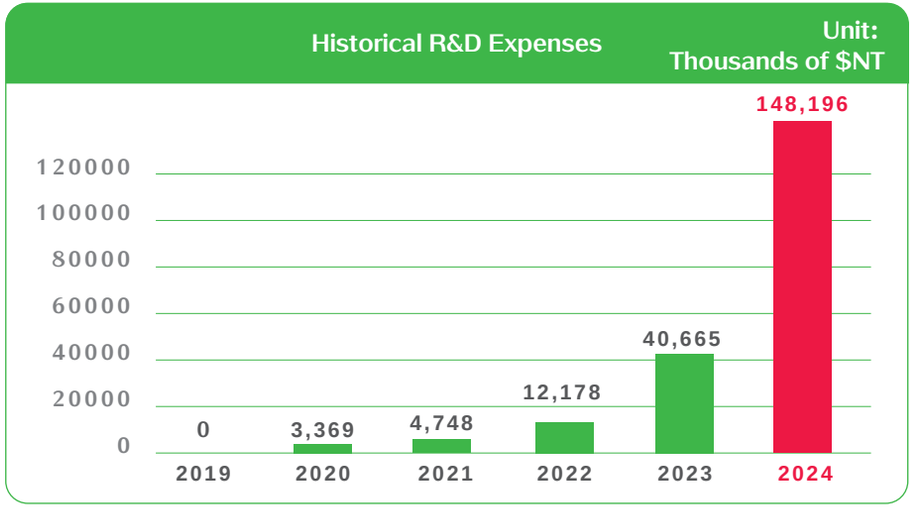
Medium and long-term planning will focus on enhancing the technical team's professional competencies and establishing comprehensive maintenance knowledge management systems to promote experience sharing. Additionally, we will actively promote operational performance management for various investment platform sites, ensuring that key projects—whether self-owned, related-party, or externally owned—achieve their annual financial targets and effectively control development and construction site progress to ensure on-schedule grid connection and stable operation.

3.1.3 Smart Green Energy: The New Generation of Power

R&D Strategy and Investment

HDRE is committed to strengthening smart management and distribution of energy and electricity through software innovation in energy management and maintenance technologies, creating distinctive competitive advantages in the market. To maintain technical leadership, the company continues to invest R&D expenses for product and service development. This year's R&D expense growth reached **260%**, with the proportion of operating revenue exceeding **1%** for the first time in history.

Year	R&D Expenses (NT$ thousands)	Operating Revenue (NT$ thousands)	Percentage of Revenue (%)
2022	12,178	5,052,656	0.24%
2023	40,665	5,077,414	0.80%
2024	148,196	10,125,465	14%



R&D Management Core Framework

Independent Technology Mastery Strategy Since 2023, the company has transitioned to an independent R&D model. Compared to previous outsourcing practices, the company now independently conducts market analysis, needs assessment, and product planning, gradually reclaiming product development rights and patent ownership to establish core technology competitive advantages.

Core Technology Review Committee

- Core Value:While granting R&D autonomy to each business unit, uniformly ensure product quality standards
- Operational Goals:
  - Avoid redundant functional development across product lines, enhance resource allocation efficiency
  - Ensure each unit's R&D direction aligns with group overall strategic goals
  - Establish cross-unit technical collaboration and knowledge sharing mechanisms
- Review Scope: Product project objectives, development team assessment, key success factors, risk assessment, and resource integration utilization
- Expected Benefits: Strengthen independent technology mastery capability through this mechanism while maintaining R&D quality consistency

Group R&D Technology Review Mechanism (Under Planning)

To respond to diversified business development, the group will adjust R&D organizational structure: each business unit will focus on product function planning and market dynamics, while R&D units will specialize in product design and development, concentrating on development and delivery processes. Through clear division of labor, we will enhance product iteration efficiency and execution capability. To ensure smooth operation of this structure, the Group plans to establish an “R&D Technology Review Committee” to strengthen R&D decision-making and technical collaboration.

Smart Energy IoT Platform

The Smart Energy IoT integrates self-built PaaS and AWS cloud platforms as the intelligent hub for distributed energy systems. Core technology originates from subsidiary Star Energy Storage Solutions, providing grid-scale and behind-the-meter energy storage software and hardware integration solutions. Through long-term big data collection, the company has refined many-to-many green electricity wheeling algorithms, auxiliary service trading platform bidding decision systems, and charging station operations management platform efficiency.

Real-Time Management Information for All Sites

Platform Function Integration

The Smart Energy IoT platform covers complete functions from data collection to analysis and prediction, It integrates AI, cloud technology, and big data analytics to enable system monitoring, alerting, reporting, and operational control for optimized scheduling and solution development. The platform aggregates big data from photovoltaic, fishery-electricity symbiosis, energy storage, charging stations, green electricity wheeling, virtual power plants, and power trading systems for power generation forecasting, electricity consumption prediction, and price forecasting, demonstrating HDRE's core competitiveness in energy management software technology.

Power Trading	Energy Storage	Photovoltaic	Auxiliary Services (Taiwan)	Green Electricity Sales SaaS
International power market operators	Energy storage system operations managers	Photovoltaic system operations managers	Energy storage system operators participating in power trading auxiliary services	Green electricity wheeling transaction buyers and sellers
• Market information collection • Market information analysis • Transaction execution recommendations • Transaction process management • Revenue settlement management	• Real-time system monitoring • Historical status query and analysis • System alerts and warnings • Integration of on-site EMS, SCADA and CCTV • Integration of maintenance systems	• Real-time system monitoring • Historical status query and analysis • System alerts and warnings • Integration of maintenance systems • Site cleaning timing analysis	• Resource management • Bidding process management • Execution settlement management • Market information analysis	• Power generation and consumption resource management • Precise green electricity matching analysis • Tri-party contract management • Green electricity buyer and seller billing management • Green electricity wheeling benefit analysis • Power generation and consumption contract compliance analysis

SaaS Energy Cloud	Charging Station Operations SaaS	SaaS Charging Service Cloud
Commercial solar-storage-charging energy service operators	Electric vehicle charging station managers	Electric vehicle charging service operators
• Solar-storage-charging equipment management • Real-time system monitoring • Historical status query and analysis • Excess curtailment, time-of-use pricing, emergency power supply and other power services • Electricity price benefit settlement • Energy demand management	• Station and charger management • monitoring • Site selection analysis for new stations • Merchant franchise management • Transaction revenue sharing management	• Member management • Marketing and traffic acquisition services • Brand interconnection and interoperability • Real-time station management information

Brand Planning and Innovation Management Strategy

Smart Energy IoT platform services have expanded to international markets, using Taiwan as a foundation for information service platform planning, integrating HDRE's self-developed AI value-added services to provide differentiated services for various energy systems. HDRE's core TITAN system penetrates power plant management, point-to-point power supply scheduling and optimization, ultimately achieving virtual power plant goals. By combining our aggregator role with VPP scheduling and AI-based forecasting systems, we are expanding into the Taiwan, Japan, and Australia power markets. Through advanced regional power centralized management models, we achieve distributed power intelligence, optimized power distribution and management.

The company regards the Virtual Power Plant (VPP) as its ultimate strategic goal. Through aggregator roles combined with VPP scheduling management and AI prediction management systems, we actively conduct Taiwan, Japan, and Australia power market development deployment. Short-term plans include completing software and hardware integration services and acquiring AI teams. Medium-term goals include exporting integration services to Japan and Australia and participating in local frequency regulation, spot, and capacity markets. Long-term plans include replicating successful models globally to establish an international virtual power plant operation network.

Development Strategy	Strategies & Actions	Core Capabilities	Objectives & Benefits
Technology Integration	• Provide comprehensive integration services for smart energy IoT software and hardware. • Acquire an AI team to establish an R&D center • Build a talent pool for IoT and AI.	• In-house R&D of core technologies • Integrated, all-in-one solutions • Field application experience in solar, energy storage, and EV charging	• Establish a technological moat • Enhance system integration efficiency • Accelerate product commercialization
Market Expansion	• Export integrated services to Japan and Australia • Participate in local frequency regulation, spot, and capacity markets • Implement localized business models	• Replicate the successful model from Taiwan • Engage in diverse market mechanisms • Possess localized service capabilities	• Mitigate single-market risks • Expand revenue streams • Build an international brand
AI-Driven Innovation	• Focus on energy forecasting, smart dispatching, and user experience optimization • Establish benefit assessment and data governance mechanisms • Implement principles of responsible AI innovation	• Continuous software and hardware optimization via intelligent algorithms • End-to-end data security protection • Systematically address business challenges	• Create tangible value for clients • Ensure return on technology investments • Support the sound development of technology

2024 Project Achievements and Technical Breakthroughs

To continually enhance the integrated capabilities of our smart energy IoT platform, HDRE successfully completed four key projects by the end of 2024. These advancements include the development of a demand management system and a multi-party matching mechanism for our green energy trading platform, significantly boosting the efficiency of green energy wheeling transactions. Our Ancillary Services Cloud was upgraded to include bid management and settlement execution systems. enhancing our decision-making capabilities in electricity trading. The EV Charging Operations Cloud now features a management system based on standard protocols, enabling the integration of charging stations from various manufacturers. Furthermore, the Smart Energy Command Center underwent a significant redesign in line with our new corporate identity, laying the groundwork for future expansion into the Asia-Pacific market. These achievements highlight the competitive edge HDRE has established in energy management and power distribution through software-driven innovation.

In-depth Integration of AI Technology

The year 2024 marked a pivotal milestone for the full-scale integration of AI technology at HDRE. We have established a clear AI R&D strategy focusing on three core areas: energy forecasting, smart dispatch, and user experience optimization. By creating a developed a comprehensive AI framework covering a data acquisition platform, an algorithm R&D team, and an application testbed — we ensure our AI technologies effectively address real-world business challenges. We have also implemented a rigorous benefits assessment mechanism with KPIs such as efficiency gains, cost reductions, and user satisfaction. A robust data governance and AI ethics framework ensures that the entire lifecycle, from data collection and processing to model training and deployment, adheres to strict data security standards and privacy protection protocols, reflecting our commitment to responsible AI innovation.

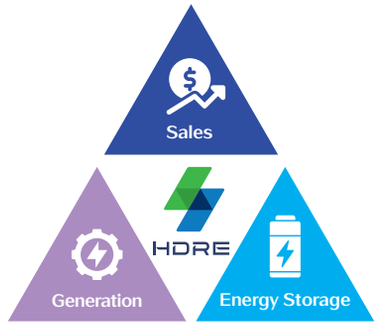
Development Goals and Market Footprint

With flourishing opportunities in both front-of-the-meter (FTM) and behind-the-meter (BTM) energy storage, our subsidiary E-dRegen aims to aggregate 2.5 GW of diverse resources—including energy storage, demand response, and renewables—and complete the installation of 550 MW of capacity, starting in 2025. As an energy aggregator, E-dRegen creates commercial monetization opportunities for each resource provider. During periods of grid strain, we offer diverse solutions to the national utility, Taipower, including ancillary frequency regulation and energy shifting. This provides robust support to the power grid, creating a win-win-win outcome for the government, corporations, and the public.

3.2 Smart Green Energy, Readily Accessible

HDRE aims to lower barriers to green-energy adoption by building the capabilities of a Virtual Power Plant (VPP) operator. Leveraging AI for intelligent energy services, we smartly manage and dispatch green power, offering more diverse electricity options for both corporate and residential consumers. We have also established a strong presence in the electric vehicle (EV) charging sector, building out a comprehensive energy network for business clients and the public alike, all to achieve our vision of "Smarter Energy, Accessible Green."

Forging the "Green energy triangle" of Generation, Storage, and Sales—advancing our goal of becoming a smart green energy company



Sales/EV Charging
- Electricity sales and charging services
- Aiming for a 30% market share

Generation
- Abundant power generation
- Targeting 1.5 GW of installed capacity

Energy Storage
- Comprehensive energy storage solutions
- Targeting 1 GW of installed capacity.

3.2.1 Star Trade: Smart Green Energy Wheeling

Star Trade Co., Ltd. a subsidiary of HDRE established in 2020, obtained its electricity sales license in 2021 and is dedicated to assisting clients in procuring green energy through a comprehensive service ecosystem. Currently top three among 106 licensed electricity retailers in Taiwan, Star Trade demonstrates exceptional market competitiveness. Leveraging the resources of the HDRE group, Star Trade focuses on the distribution, management, and operation of green energy and integrated solutions for PV, EV charging, and energy storage. Our core mission is to "Integrate PV, EV Charging, and Storage to Bring Zero-Carbon Energy to Every Household." Through advanced data analytics and a smart cloud-based system, we provide clients with customized green energy solutions and assist them in obtaining Renewable Energy Certificates (RECs), effectively meeting their needs for carbon reduction and sustainable development.

Looking ahead, Star Trade has a clear roadmap for capital market entry, planning to complete its Initial Public Offering (IPO) by the end of 2025, list on the Emerging Stock Market in 2026, and go public on the main exchange as early as 2027. Simultaneously, we are actively pursuing overseas expansion, with the goal of entering Japan's electricity trading market in 2025. We also aim to increase our green energy supply capacity to 1 GW and expand our green energy sales volume to 330 million kWh.

Note: The platform name “Star Exchange” has been officially updated to “Star Trade." in 2025. All references to “Star Trade” in this report refer to the same entity under its previous name "Star Exchange".

Annual Highlights

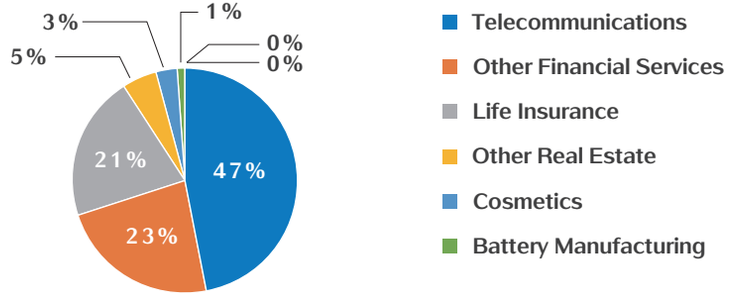
- Total Electricity Sales in 2024 **92,618,309kWh**
- Renewable Energy Certificates (RECs) Issued **92,619**
- Total Contracted Electricity Volume **16.1 billion kWh**
- Cumulative Wheeled Electricity **143,587,202**
- Wheeling Sites **2,084**

2024 Green Energy Wheeling Achievements

In 2024, Star Trade's total wheeled green electricity exceeded 90 million kWh; it is projected to reach 330 million kWh in 2025, underscoring the company's strong growth potential and execution capabilities. The total electricity sales for 2024 amounted to 92,618,309 kWh, resulting in the issuance of 92,619 renewable energy certificates (RECs). Our cumulative wheeled volume has reached over 143 million kWh, and our total contracted volume stands at 16.1 billion kWh. All wheeled green energy was sourced from solar power. Our services cater to a diverse range of industries, primarily telecommunications (47.2%), other financial services (22.5%), life insurance (21.3%), real estate (5.1%), cosmetics (2.4%), battery manufacturing (1.1%), other information services (0.2%), and renewable energy generation (0.2%). All provided RECs are of the "bundled" type, sold together with the underlying electricity.

Leveraging its professional service capabilities and innovative business models, Star Trade successfully bridges the gap between power generators and end-users. By establishing a secure, transparent, and efficient green energy trading platform, we empower our corporate partners to advance towards their net-zero and sustainability goals.

Share of Power Purchase by Industry



Intelligent Development of Green Energy Wheeling

With the introduction of carbon emission regulations and carbon fees under Taiwan's Climate Change Response Act, the demand for green energy wheeling has significantly outpaced supply. Therefore, efficiently matching green energy suppliers with consumers has become a key strategic focus for Star Trade. This year, we are upgrading our green energy management platform into a fully intelligent system. It integrates customer data analysis, demand matching, contract management, and the application of AI algorithms to optimize the dispatch and allocation of green energy. This enables us to offer clients the most suitable solutions and utilize predictive forecasting to mitigate energy dispatch risks.

Comprehensive Green Energy Services

Through our intelligent energy IoT platform, we leverage AI algorithms and big data analytics to provide corporate clients with end-to-end green energy solutions, from consulting and planning to execution. We assist companies in achieving their net-zero emission targets and meeting increasingly stringent regulatory and ESG standards.

Green Energy & Net-Zero Consulting	1. **Comprehensive One-Stop Services:** We offer complete solutions covering green energy procurement planning, energy use optimization, and certificate management to ensure efficient and compliant adoption of green energy. 2. **Carbon Management Strategy:** We develop customized decarbonization roadmaps based on a company's specific industry and reduction goals. This includes procurement strategies, deployment of PV, storage, and charging systems, and long-term net-zero transition pathways to help businesses meet international regulations, ESG standards, and supply chain requirements.
Green Energy Distribution & Group Purchasing	1. **Green Energy Matching Platform:** We offer group purchasing models for solar and offshore wind energy tailored to corporate needs, reducing procurement costs and increasing efficiency. 2. **Group Sales Solutions:** • Supply Chain Group Purchasing: Suitable for large supply chain partners with commitments to carbon reduction, this service helps businesses collectively purchase green electricity, reducing the barriers and costs of individual purchases. • Green Leasing Solutions: Targeting commercial and office building and industrial park landlords, this service provides green leasing solutions to encourage tenants to use renewable energy and enhance the sustainable value of their buildings. • Resource Integration: Integrating the energy of Type I, II, and III power plants to meet the electricity needs of businesses at varying times and scales, ensuring a stable and diverse green electricity supply.
Contract & Billing Management	1. **Green Energy PPA Management:** We provide expert planning for Power Purchase Agreements (PPAs), paired with a credit insurance mechanism to reduce risks and enhance transactional stability. 2. **Intelligent System:** Our platform automates the administration of PPAs and billing, improving transparency, streamlining financial processes, and boosting management efficiency.
Smart Energy Monitoring & Management	1. **AI-Powered Predictive Dispatch:** We use proprietary algorithms to forecast electricity demand and dynamically dispatch green energy, ensuring an optimal matching strategy. 2. **Mix Optimization & Surplus Management:** AI clustering algorithms dynamically adjust the green energy supply mix and manage surplus power, achieving an average wheeling-matching ratio of over 90% to enhance efficiency. 3. **Data Analytics:** We provide real-time energy monitoring and data analysis, empowering companies to improve energy management and decision-making. 4. **Integrated PV, Storage & Charging Applications:** We equip businesses with integrated facilities to boost energy utilization, ensure power stability, and further optimize their green energy applications.

Star Trade's 2024 Highlights

Significant Corporate Partnership Outcomes

In 2024, Star Trade successfully expanded its collaborations across diverse industries, as detailed below by sector:

Technology Manufacturing Sector

In the semiconductor industry, Star Trade signed a 20-year APPA (Aggregate Power Purchase Agreement) for a group green energy procurement agreement with ASE Technology Holding Co., Ltd. Green energy wheeling is set to commence in the second half of 2025, with an initial supply of 150 million kWh in 2026, incrementally increasing to 375 million kWh annually, for a cumulative total of 6.3 billion kWh. Concurrently, we partnered with MediaTek Inc., the world's fifth-largest IC design company, and its affiliates, to introduce 50 million kWh of green energy annually starting from 2025, assisting the technology industry in achieving its net-zero carbon emission goals.

Signing a green power contract with MediaTek

Financial Services Sector

Regarding the green energy transition in the financial sector, Star Trade signed a green leasing agreement with Cathay Life Insurance, initiating green energy wheeling to their commercial buildings from 2024, with an estimated supply of at least 325 million kWh. Furthermore, six subsidiaries of Fubon Financial Holding Co., Ltd. signed green energy procurement contracts for 4.39 million kWh, covering 76 operational sites. This marks the first time a financial institution has extended its green energy initiatives to Taiwan's offshore islands, demonstrating the financial sector's commitment to environmental sustainability.

Cooperating with ASE Technology Holding on a green power group purchasing agreement

Telecommunications Sector

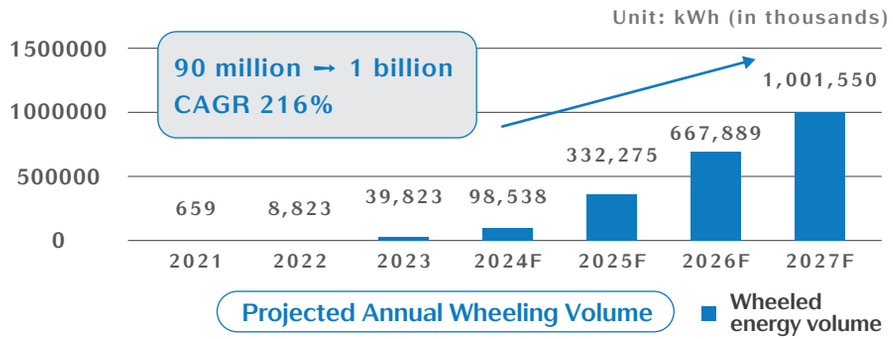
In collaborations within the telecommunications industry, Star Trade has become Taiwan Mobile's largest green energy supplier. The two companies jointly established a green energy platform to invest in solar and energy storage projects, wheeling approximately 67 million kWh of green energy annually, thus creating an innovative partnership model within the industry.

Future Roadmap: The Intelligent Evolution of Green Energy Wheeling

As global warming intensifies, domestic and international enterprises are increasingly pledging to achieve net-zero carbon emissions by 2050. As a result, supply chain demand for green energy continues to rise. To assist clients in securing green energy and accelerating their RE100 targets, Star Trade will not only continue to optimize its existing one-to-one, one-to-many, and many-to-one green energy wheeling models but will also focus on refining a "many-to-many" green energy wheeling model. This enhanced model will facilitate matching transactions between multiple power plants and multiple clients, optimizing generation-consumption alignment over time to provide users with the most suitable renewable electricity resources.

Green Energy Wheeling Target

As of November 2024, the total contracted green energy volume reached 16.1 billion kWh. The projected wheeled volume for 2025 is 330 million kWh.



3.2.2 Star Charger: EV Charging Solutions

Star Charger Co., Ltd., established in 2021, is a subsidiary of the leading smart energy brand HDRE (TWSE: 6873), offering services that include charging station installation, product sales, and station operation. In its initial phase, the company partnered with FamilyMart to build 120kW fast-charging stations at 10 of its convenience stores across Taiwan, supporting all major EV brands. Subsequently, Star Charger has collaborated with a wide range of leading enterprises and state-owned entities to establish more stations, including PX Mart, E-Life Mall, Chien-Yen Hot Pot, Shin Kong Mitsukoshi, City Parking, Cingjing Farm, as well as the Taiwan Railways Administration (TRA), Taisugar, and the Airport MRT.

In addition to solidifying its presence in the Taiwanese market, Star Charger is actively expanding its overseas operations. In 2023, it launched "SHUUSTAR," a new charging operation brand in Japan, leveraging its extensive operational technology and experience from Taiwan to create a new smart charging experience for Japanese EV drivers. Looking ahead, the company will continue to expand its partnerships with car manufacturers, department stores, hypermarkets, and parking facilities to meet the rapidly growing demand for EV charging.

Star Charger Service Models

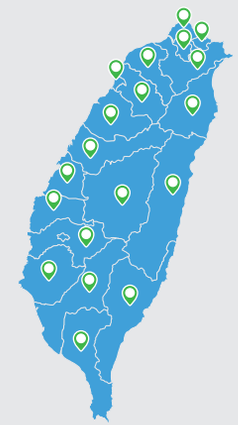
Type	Direct Operation	Partner Operations	Channel Sales	Platform
Service Model	Self-operated Stations	Third-party Station O&M	Equipment Distribution	CPO / Roaming Platform
Description	Businesses such as gas stations, shopping malls, or parking lots build and operate their own stations, attracting EV owners with a convenient charging experience to drive consumer traffic.	We manage and maintain EV charging stations on behalf of the site owner, allowing our partners to expand their service offerings while we assist them in providing a convenient charging experience.	This service covers the sale, installation, and maintenance of EV charging equipment, offering site owners a professional, turnkey solution for building their charging infrastructure.	Our platform integrates various charging stations to provide a unified experience for reservations, charging, and payments. Users can access multiple networks across Taiwan with a single registration.

2024 Charging Station Achievements

Since integrating the LINE platform in 2023, Star Charger has offered consumers a one-stop charging service through a familiar interface. This allows users to complete the entire process—from searching and navigating to stations to making payments—without needing to download a dedicated app. As of March 2025, the official LINE account has grown to 34,119 followers, a six-fold increase from the previous year, total reach of 1,500 accounts/users, and a daily active use rate of 5-10%.

The cumulative charging volume for the full year of 2024 reached 243,479 kWh, indicating continuously growing market demand. By the end of 2024, Star Charger had deployed 117 charging stations in Taiwan, with another 175 sites under construction and 250 in development. The stations are primarily located in western Taiwan—including Taipei, Taichung, Nantou, and Tainan—at sites such as FamilyMart, PX Mart, City Parking lots, and public facilities managed by the TRA and Taisugar.

Operational Status	Number of Stations
In Operation	Cumulative 117 Stations
Under Construction	175 Stations
In Development	250 Stations



Charging Station Operation & Management Platform

The Charging Station Operation & Management Platform developed by Star Charger is a comprehensive management system for EV charging infrastructure. It provides a single-platform solution for charge point operators and creates a seamless charging experience for consumers. The platform's core features include:

1. **Site Setup:** Provides equipment and information integration, along with testing functions during station deployment to ensure stable service launch.
2. **Real-time Monitoring:** Offers real-time status information for charging stations, including charging status, power output, and connectivity.
3. **Data Analytics:** Collects and analyzes charging usage data to understand customer needs, identify trends, and improve operations.
4. **Remote Management:** Allows for remote control of charging stations, including starting/stopping charging sessions, adjusting prices, and resetting equipment.
5. **User Management:** Manages customer accounts, including account creation, usage tracking, and payment processing.
6. **Time-of-Use (TOU) Pricing:** Adjusts charging rates based on peak and off-peak periods to encourage off-peak charging.

Star Charger's 2024 Highlight Achievements

In 2024, Star Charger's cumulative charging volume for the year reached 243,479 kWh, reflecting continued growth in market demand.

Expanding Retail Channels

We deepened our partnership with FamilyMart, bringing charging stations online at five convenience stores and two Directorate General of Highways service areas. Two stations at PX Mart locations are now operational, with contracts signed for over 10 additional stores and successful bids secured for more than 30 new sites. An agreement was signed with E-Life Mall, securing a presence in the consumer electronics retail channel. We also collaborated with Chien-Yen Hot Pot to create a lifestyle charging network integrated with dining experiences.

Star Charger and City Parking collaborate to launch a one-stop payment service.

Developing Parking Lot Presence

Star Charger and City Parking signed a contract covering over 100 locations to develop a one-stop charging and payment system. This year, 67 new stations were added in Taichung's public parking lots, significantly enhancing charging convenience for drivers. In the future, we will continue to expand our deployment in public parking lots in Zhubei, Chiayi, Tainan, and Kaohsiung.

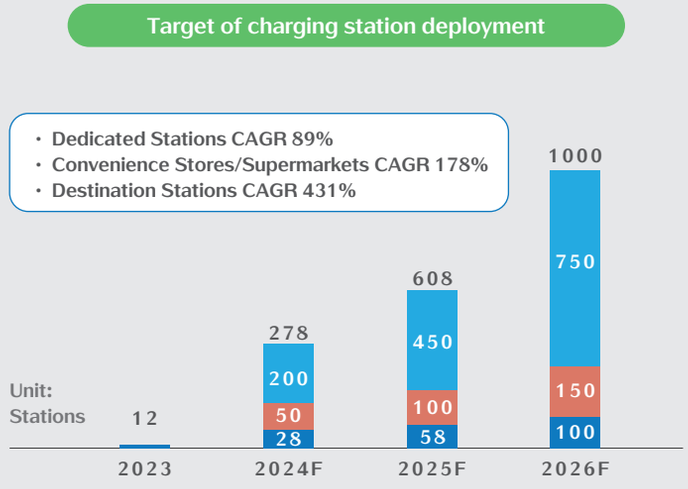
Securing Government Contracts

Star Charger successfully won the Taiwan Railways Administration's "9+1" tender, the Taisugar Hengshan Station tender, and the Airport MRT tender. All stations from these projects are expected to be online by 2025, completing the layout for a nationwide round-the-island charging network.

Star Charger's Future Goals

Star Charger's initial customer base targets residents in Taiwan's six major metropolitan areas. Adopting a B2B2C product strategy, we collaborate with various venue types to offer diverse charging services, ranging from slow charging (7kW/17kW) to fast charging (30kW/60kW/120kW), to meet diverse user needs. In response to the government' s promotion of EV adoption for both cars and motorcycles, the Company plans to expand into the B2B charging station market. Furthermore, Star Charger actively participates in the establishment of charging operator industry associations, promoting technical standards, regulatory validation, subsidies, and operational development for EV charging infrastructure.

In the Japanese market, the SHUUSTAR brand plans to undertake projects such as highway charging hubs and integrated PV-storage-charging pilot sites. We will also participate in exhibitions like Japan Energy Week and engage in corporate collaboration meetings to expand our market influence in Japan, establishing a professional brand image and market trust. Our goal is to deploy 300 charging stations in Japan within three to five years, strategically located in major transportation hubs, commercial districts, and residential areas. We will also develop smart charging management systems and home/commercial charging solutions to provide comprehensive charging solutions for Japanese EV owners.



3.2.3 Star Energy Storage Solution: Grid-Scale Energy Storage

To enhance the stability of the power supply, HDRE established its subsidiary, Star Energy Storage Solution, in 2021 to focus on energy storage system applications. As a key technology in the energy transition, energy storage systems (ESS) not only mitigate renewable energy intermittency and improve grid resilience, optimize energy distribution, and promote energy independence, making them a cornerstone of a sustainable energy framework. Through system integration, localized software development, and operational management, Star Energy Storage Solution provides smart energy solutions to support the 2050 net-zero emission goal and participates in Taipower's ancillary services market to maintain the stable supply of the power system.

Localized Energy Storage Solutions

HDRE, in collaboration with its partners, has established an energy storage equipment factory in the Tainan Technology Industrial Park to locally produce a range of energy storage equipment. This includes large-scale containerized ESS (2,752 kWh), Commercial & Industrial (C&I) energy storage (215 kWh), small-scale energy storage (7-20 kWh), and microgrid equipment. Building upon this foundation, Star Energy Storage Solution provides integrated services such as modular design, customized software, customized software, long-term warranty coverage, and smart energy management solutions, and smart energy management. This not only strengthens the resilience of the energy supply chain but also enhances the resilience of the energy supply chain and generates local green-energy employment opportunities.

Star Energy Storage Solution provides highly integrated solutions with the following key service and product advantages:

Modular Design	Flexibly design the capacity of battery modules based on application scenarios to meet demands of different scales.
Localized Software Development	Integrate local product design, manufacturing, and warranties. Customize energy management systems and control strategies according to the latest system applications or electricity market regulations.
Performance Warranty	Provide long-term battery health monitoring and performance warranties based on planned charge-discharge operational models.
Smart Energy Management	Develop the "Energy Storage Cloud" within our smart energy IoT. This platform helps O&M personnel at storage sites monitor key operational parameters, including State of Charge (SOC) and State of Health (SOH), and uses big data analytics for health diagnostics and predictive maintenance.

2024 Energy Storage System Deployment Achievements

Star Energy Storage Solution currently has multiple energy storage projects at various stages of deployment, helping Taipower provide a stable power output across Taiwan:

- Operational: Hualien Heping 10+10 MW ESS (Completed in 2024, now officially participating in Taipower's ancillary services).
- Nearing Grid Connection: Hualien Heping 40 MW, Pingtung Chaozhou 99 MW, and Tainan Liuying 1.5 MW ESS projects.
- Under Construction: Tainan Liuying 200 MW (Est. completion Q4 2024) and Taichung Longjing 100 MW (Est. completion Q2 2026).
- In Planning: Taitung Fenggong 100 MW (ESS installation est. completion Q4 2024) and Taichung Xinshe 100 MW (ESS installation est. completion Q2 2026).

The deployment of these sites significantly enhances Taiwan's grid resilience, enabling more effective integration of renewable energy into the grid. This reduces reliance on fossil fuels, lowers carbon emissions, and provides a critical contribution to the energy transition.

Smart Energy Monitoring Systems

Star Energy Storage Solution has independently developed several specialized energy-management software systems to improve storage operational efficiency. Through data analytics and AI technology, we enhance the efficiency and sustainability of our energy storage systems, optimizing resource allocation and advancing the sustainable energy transition.

System Name	Functional Description
Energy Management System (EMS)	Controls the operation of the energy storage system based on ancillary service demand, optimizing energy efficiency and reducing waste.
Electricity Trading & Bidding Platform (Energy Storage Cloud)	Manages electricity trading bids and monitors system operational status. Utilizes predictive maintenance to extend equipment lifespan and reduce resource consumption.
Bidding Decision Support System	Uses AI models to predict electricity trading prices and recommend optimal strategies, increasing market participation effectiveness and promoting renewable energy integration.

Training and Professional Development

Star Energy Storage Solution places a strong emphasis on developing internal expertise, regularly organizing professional study groups and training courses. These include a "Japan and Australia Electricity Market Analysis Study Group" and a "Taipower Electricity Trading Platform Regulations Course" to ensure our team members stay abreast of the latest market dynamics and technological developments. We also participate in external professional training, such as courses on the ISA/IEC 62443 cybersecurity standard, to enhance our ability to protect critical industrial control systems (ICS) and advance our IT/OT cybersecurity expertise.

The company encourages all departments to regularly share the latest market and policy trends. The EMS team provides regular reports on system development progress and actively participates in online energy industry discussions, with a special focus on Japanese industry insights and future bidding strategies. These training initiatives help our team to continuously enhance their professional skills, enabling them to more effectively support the company's business development.

Star Energy Storage Solution's Future Footprint

Star Energy Storage Solution's development plan focuses on the deployment of energy storage systems and market expansion. In the domestic market, we will continue to expand the scale and regional coverage of our project sites while progressively advancing our expansion into the Asia-Pacific region. Each project has a clear and time-bound schedule to ensure the company's stable growth.

Our corporate vision is focused on the steady development of the domestic energy storage market while actively exploring opportunities in Japan and Australia. In Japan, we are participating in several renewable energy-related tenders in response to local zero-carbon policies. In Australia, we are expanding our services related to energy aggregation. Concurrently, the company is deepening its industry collaborations and advancing its Virtual Power Plant (VPP) technology to help households and electric vehicles achieve bidirectional charging and discharging capabilities, showcasing our forward-looking vision and strength in the field of smart energy management.

3.2.4 Star Aquaculture: Fisheries-Solar Symbiosis

Fisheries-solar symbiosis is a vital strategy for achieving national sustainable development. On the energy front, it helps meet renewable energy targets and reduce carbon emissions. On the social front, it revitalizes fishing villages and creates local employment opportunities. On the industrial front, it promotes the smart upgrading of the aquaculture industry, enhancing its competitiveness while preserving local aquaculture culture. This model transcends the goes beyond the traditional single-purpose land use model," unlocking the multi-faceted value of land by balancing food security, energy supply, and ecological conservation.

Star Aquaculture specializes in the management of fisheries-solar symbiosis projects. Our primary site is in Cigu, Tainan, covering an area of 57.7 hectares with an installed capacity of 42.8 MW, which is projected to generate 65 million kWh of electricity annually. We primarily cultivate commercial species such as white shrimp, grey mullet, and milkfish. The promotion of fisheries-solar symbiosis not only upholds the principle of "agricultural land for agricultural use" but also optimizes fishery production, develops green energy, and revitalizes local industries, creating a multi-win situation.

Biodiversity and Community Prosperity

Star Aquaculture is committed to biodiversity conservation and community co-prosperity. In terms of conservation, we have established an ecological conservation area and promote the restoration of native species. Regarding community engagement, we prioritize hiring local residents and support local cultural activities, achieving a harmonious coexistence between ecology and society. Through optimized high-density aquaculture and the application of organic materials, we have established a model where aquaculture and the natural environment coexist in harmony. For more details, please refer to Section 4.3 Biodiversity and Section 6.1 Community Prosperity.

Local Industry Chain and Talent Cultivation

Star Aquaculture implements a vertical integration strategy to deepen the localization of the aquaculture industry chain. The company prioritizes hiring local talent and collaborates with universities and colleges to introduce aquaculture internship programs, cultivating professional talent and promoting professional knowledge transfer. Through standardized aquaculture processes and a knowledge management system, we effectively shorten the talent development period. Simultaneously, we have built a platform to facilitate employment for returning youth, encouraging population inflow to fishing villages and injecting new vitality and sustainable momentum into the traditional aquaculture industry.

2024 Highlights

- 2024 Harvest volume **183,648 catty**
- Patents obtained **5 aquaculture patents**
- Number of cultivated species **5 (Milkfish, White Shrimp, Grey Mullet, Grass Prawn, Kuruma Prawn)**
- Managed land area **85.1 hectares**

Cigu Demonstration Site

Location & Area	Cigu District, Tainan City, 57.74 hectares
Partners	Taiwan Environmental Planning Association, Shan-Chuan Environmental Enterprise Co., Ltd.
Cooperation Model	Collaborating with veteran local aquaculture farmers and net workers to optimize the timing for mullet roe harvesting.
Site Features	• **Precision Water Quality Monitoring:** Utilizing a smart monitoring system for real-time tracking of water quality changes. • **Overcoming Extreme Climate Challenges:** Establishing a comprehensive response mechanism to manage difficult conditions like water shortages. • **Eco-friendly Aquaculture:** Adopting high-density farming and biological methods, prohibiting chemical use to maintain soil vitality. • **Water Recycling System:** Reducing resource consumption and enhancing water use efficiency.
Site Highlight	Achieved an annual harvest of **100,000** Taiwanese catties (approx. 60,000 kg) despite difficult conditions where salinity repeatedly exceeded 5 ppt.

Smart and Sustainable Aquaculture System

In recent years, the aquaculture industry has faced multiple challenges, including labor shortages, extreme climate events, and water resource limitations, posing challenges to the sustainability of traditional farming models. By implementing a smart aquaculture monitoring system and sustainable management mechanisms, Star Aquaculture effectively mitigates climate risks, improves resource efficiency, and reduces reliance on manual labor, ensuring the industry's resilience and competitiveness amidst environmental changes.

Star Aquaculture has established a complete aquaculture value chain—from planning and production to sales—integrating sustainable thinking and smart management into every stage to ensure a balance of ecological, economic, and social benefits.

Smart aquaculture applications

Item	Purpose	Sustainable Design & Smart Application
Fish Farm Development & Aquaculture Planning	Diversify business models, promote knowledge exchange and skills inheritance.	• Collaboration with existing local farmers • Cultivating an in-house aquaculture team • Outsourced aquaculture management
Environmental Assessment & Optimization	Reduce groundwater over-extraction, maintain hydrological and ecological balance	• Climate adaptability assessment • Sustainable water sourcing • Water and soil quality analysis • Utilizing water from lagoons and channels to avoid groundwater extraction
Infrastructure Enhancement	Improve site resilience to disasters, extend equipment lifespan.	• Reinforcing breakwater foundations • Strengthening power generation equipment structures • Comprehensive waterway planning and drainage systems
Smart Monitoring System	Integrate monitoring of water quality, equipment operation, and climate.	• Real-time monitoring with AI-powered early warnings • Reducing unnecessary resource consumption • Introducing Flamingo/Muse AI models to optimize design and water quality assessment
Resource Management System	Monitor carbon emissions and recycle water resources.	• Integrating aquaculture data into an ERP system • Building a big data database for aquaculture • Optimizing decision-making and resource allocation
Climate Resilience Management	Provide precise weather data via a micro-weather station network.	• Adjusting aquaculture plans in advance with a climate forecasting system • Abnormal weather monitoring and emergency response system

Sustainable Water Resource Management and Recycling

Star Aquaculture treats water as a key strategic asset and has established a comprehensive system for its management and recycling:

Water Conservation Policy	Specific Measures	Real-time monitoring screen of the fish farm
Pipeline Optimization & Energy Reduction	• Regular pipeline maintenance to reduce overflow and optimized layouts to lower energy consumption. • In 2024, adjustments were made to the configuration of intake/drainage motors and aerator motors.	
Water Recycling System	• Water from regular pond exchanges is first directed to a holding pond for natural degradation and storage. • This provides a supplementary water source during the dry season and allows for longer degradation times during the rainy season. • A complete water circulation path is established to maximize water resource utilization.	
Smart Monitoring & Early Warning	• Plans are in place to connect the water management system with AIoT terminals in 2025. • This will be integrated into the Aquaculture Command Center for real-time monitoring and early warnings, using data analytics to optimize water use strategies.	

Sustainable Production and Sales System

Star Aquaculture is committed to building a sustainable farm-to-table value chain. We have fully implemented traceability systems for production and sales history, carbon footprint, and water footprint. All our products are certified with the Ministry of Agriculture's Traceable Agricultural Product (TAP) label and undergo third-party verification. The company is developing diverse sales channels, with a priority on local white shrimp and grey mullet products to reduce reliance on imports and lower transportation-related carbon emissions. This approach also supports the heritage of local aquaculture culture, increases employment opportunities in surrounding communities, and achieves a synergistic development of economic benefits and social value.

Work Safety Management

Star Aquaculture prioritizes work safety, implementing protective measures for personnel across all work areas on our sites. We have established a comprehensive work safety management system that includes regular equipment inspections, safety training, and an incident reporting mechanism to effectively reduce operational risks and improve efficiency.

Star Aquaculture's 2024 Highlight Achievements

In 2024, Star Aquaculture expanded its aquaculture planning and design services, focusing on optimizing cultivation techniques for high-value commercial species. We also enhanced our water quality monitoring technology to improve farming success rates in the face of addressing challenges from water scarcity and extreme weather events.

- **Significant Increase in Production and Efficiency:** Through accumulated experience and operational standardization, our harvest volume increased substantially in 2024. The total yield reached 183,648 Taiwanese catties (approx. 110,189 kg), an 83.6% increase compared to 2023.
- **Deepened Industry-Academia Collaboration:** We established partnerships with several universities, introducing an aquaculture internship program to cultivate new talent for the industry.
- **Technological Innovation and Breakthroughs:** We introduced the Flamingo AI model to optimize site design and the Muse AI model to assist with water quality monitoring, elevating the technological level of our aquaculture practices.

Future Outlook

Advancement in Smart Aquaculture Technology

Star Aquaculture will continue to drive industrial transformation based on the twin pillars of "ecological aquaculture" and "smart aquaculture." In the future, we will enhance our AI management system to improve automated response capabilities for abnormal situations, ensuring greater stability in cultivation environments. The development of smart aquaculture will help returning youth more effectively bridge the knowledge gap, cultivating a new generation of talent and ensuring the industry's technical inheritance and innovation.

Sustainable Products and Market Expansion

The company is actively developing diverse sales channels and plans to apply for official carbon footprint and water footprint certifications for our products to enhance market competitiveness. Targeting the white shrimp market, which has a high dependency on imports, we will advance a traceable ‘farm-to-table’ strategy centered on transparency and consumer trust, aiming to boost consumer confidence in the local aquaculture industry

3.3 Strengthening the Sustainable Value Chain

3.3.1 Meaning of Material Topic: Product Quality and Responsibility

Project Management and Progress Advancemen

HDRE ensures that each power plant meets regulatory requirements and the demands of our clients and company after completion and grid connection, we have dedicated departments and teams at each stage to monitor project quality and progress. In 2022, our company obtained ISO 9001 certification for quality management systems, covering both office and project sites. We are gradually implementing quality management practices and executing ISO 14064-1 to assess significant carbon emissions and develop subsequent management and control measures.

To improve our management performance, we utilize a monitoring and measurement system focused on four pillars: Quality, Environment, Social, and Governance. We report on performance and outline future actions in our annual management review. These reviews are informed by monthly progress reports, allowing us to identify and address key areas for improvement.

ISO 9001:2015 QUALITY MANAGEMENT SYSTEM


bsi.
Certificate of Registration

Quality Management Process for Site Construction

HDRE has established a comprehensive quality management process for site construction to ensure that rigorous quality control is maintained throughout every phase of a project, from planning to final completion.

01

Procedure

Construction Planning

Importance Description

Verifications of drawings, materials, proposals, and construction safety and quality management plan.

Quality Management System

- Data Handover: Upon finalization of the project site plan, the Project Division will hand over the planning documents to the Engineering Department. The Engineering Department will then assign a Site Manager, a Quality Supervisor, and an Environment, Health, and Safety Officer.
- Quality Standard Specifying: The Project Division shall specify the quality standard during the pre-construction meeting, and shall also request the Engineering Division to fill out the “Construction Safety and Quality Management Plan” and to output the “Construction Quality Key Point Checklist” for submission to the field supervisor.

02

Procedure

Construction Execution and Autonomous Inspection

Importance Description

Drawing review, material management, Self-inspection of construction quality, construction process review and doubt resolution

Quality Management System

- Daily Monitoring: The contractor is required to fill out a daily construction log to manage the project schedule and quality.
- Exception Handling: For major issues, a "Quality Non-conformance and Improvement Notice" must be filed. For material defects, a "Corrective Action Request " will be issued.
- Audit Mechanism: The contractor shall conduct self-inspections according to the "Work Item Self-Inspection Checklist." A final quality acceptance inspection will be performed upon the completion of each construction stage.

03

Procedure

Construction Acceptance and Abnormality Handling

Importance Description

Acceptance, construction completion drawings correction and deficiency improvement

Quality Management System

- Customer Acceptance Process: Acceptance inspections are conducted according to customer requirements, and an "Acceptance Record Form" is issued.
- Documentation and Confirmation: The acceptance records are compiled and verified by designated personnel before the case is formally closed out.
- Issue Resolution: Any issues identified during acceptance are discussed with the client and resolved. The improvements are documented in an "Acceptance Improvement Verification Form."
- Regulatory Approval: Upon site completion, an application is submitted to Taipower for a grid-connection trial run (commissioning). The system will be officially connected to the grid after passing all tests.
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04

Procedure

Construction Execution Identification and Tracking

Importance Description

Construction Execution Identification and Tracking

Quality Management System

- Document Consolidation: Consolidate all relevant documents, including on-site inspection reports, testing reports, and contracts.
- Record Retention: Retain both digital and hard-copy versions of all documents for future identification and traceability.
- Data Handover: Hand over all final documents, such as as-built drawings, equipment catalogs, and operation manuals, to the Asset Management Department.

Utilizing a comprehensive project management system, HDRE devotes full attention to every project, from development and engineering to final operation. Our commitment is to guarantee on-time project delivery and seamless performance, fulfilling the expectations of our clients. By doing so, we contribute to the net-zero carbon objectives of our nation and the planet, helping to build a world powered by green electricity and advance the vision of a net-zero future.

3.3.2 Source Tracking Management and Procurement Policy GRI 204-1

Procurement Risk and Management Framework

Common Procurement Risks in the Solar Industry

HDRE faces multifaceted procurement challenges, with risk factors that directly impact the company's operational stability and sustainable development.

Risk Category	Risk Factors	Potential Impact
Supply Chain Risk	• Supplier Concentration: Reliance on a limited number of suppliers for key components. • Raw Material Shortage: Global scarcity of critical materials. • Customs & Trade Barriers: Changes in international trade policies and tariffs.	• Supply Disruption & Production Halts • Delivery Delays • Increased Costs & Project Delays
Market Risk	• Price Volatility: Significant fluctuations in raw material prices. • Currency Fluctuation: Impact of foreign exchange rates on international procurement. • Market Competition: Intensified competition leading to squeezed profit margins.	• Budget Overruns • Decreased Profitability • Reduced Competitiveness • Lower Return on Investment
Sustainability Risk	• Poor Quality: Products failing to meet technical specifications. • Delivery Delays: Suppliers failing to deliver on schedule. • Changes in Standards: Amendments to regulations or technical standards.	• Reduced Site Performance & Efficiency • Lower Customer Satisfaction • Additional Maintenance Costs
Sustainability Risk	• Environmental Compliance: Environmental violations by suppliers. • Labor Issues: Concerns regarding labor rights in the supply chain. • Carbon Footprint: Carbon emission restrictions and carbon taxes.	• Reputational Damage • Legal Liability • Pressure from Stakeholders • Increased Operational Costs

Strategic Supplier Selection

HDRE adopts differentiated procurement strategies based on the characteristics and importance of materials. For high-value core materials, priority is given to evaluating renowned domestic and international manufacturers, with a primary focus on quality stability, technical support, and sustainability performance. For critical power equipment such as inverters, we prioritize stable, high-quality models from major manufacturers, emphasizing operational reliability and technical support. For general equipment and materials, we give preference to local domestic suppliers, focusing on stable delivery times, service quality, and local support capabilities. Through these strategic selections, we ensure the resilience and sustainability of our supply chain.

Integrated Procurement Management Framework

To effectively address the aforementioned risk challenges, HDRE has established a systematic procurement management framework. This framework integrates four key dimensions—Quality, Risk, Environment, and Social—to ensure the stability and sustainability of our supply chain.

Quality-Oriented	Risk Management	Sustainable Focus	Social Responsibility
Rigorous quality control to ensure products and services meet the highest standards.	Building a resilient supply chain to mitigate risks from single-source dependency.	Reducing carbon emissions and promoting environmentally friendly procurement practices.	Ensuring the supply chain complies with social responsibility and human rights standards.
• Inspection by ISO-certified laboratories • Prioritizing high quality and performance • Preferential selection of products from major manufacturers for core equipment.	• Multi-sourcing strategy with alternative materials for all key components • Advanced ordering to prevent material shortages • Diversification of origin sources	• Supply chain localization • Carbon emission reduction • Prioritizing green and eco-friendly products	• Compliance with social responsibility standards • Upholding suppliers' human rights protections • Adherence to fair trade principles

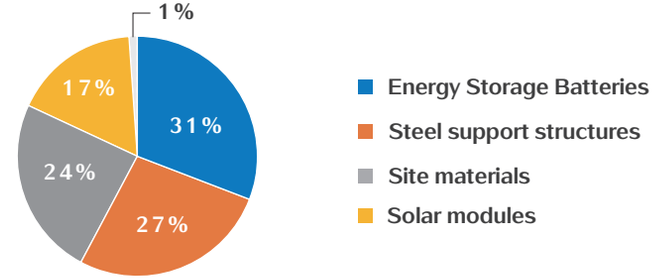
Through this procurement management policy, HDRE ensures that all purchasing decisions comprehensively consider all critical factors, thereby achieving genuine sustainable value chain management. This framework directly supports the company in addressing various procurement risks while ensuring that all procurement activities align with sustainable development goals.

2024 Procurement Items and Proportions

The company procures a diverse range of materials and equipment to ensure the high-quality development and reliable operation of solar project sites.

In 2024, energy storage batteries constituted the largest proportion of HDRE's procurement. The second were materials required for solar site construction, such as steel support structures, other site materials, and solar modules.

2024 Procurement Proportions



Practices on Procurement from Local Suppliers

HDRE regards local procurement as a core element of its supply chain strategy. It not only supports risk management but also helps integrate economic, environmental, and social value creation across operations. When quality and technical specifications are comparable, we give preference to local Taiwanese suppliers to create shared and comprehensive sustainable value.

Benefit Category	Specific Benefits	Implementation Methods
Environmental Benefits	• Reduced transportation distances • Lower carbon emissions • Reduced packaging waste	• Prioritizing Taiwanese manufacturers • Reducing international shipping • Implementing green packaging requirements
Economic Benefits	• Shortened supply chain • Increased service efficiency • Lower logistics costs	• Establishing a local supplier network • Shortened delivery lead times • Reduced inventory costs
Social Benefits	• Creation of local jobs • Promotion of local technological development • Support for the local economy	• Increasing the proportion of local procurement • Fostering technical collaboration • Giving preferential consideration to local manufacturers

Local Procurement Ratio in Last Three Years

The decline in HDRE's local procurement ratio in 2024 mainly reflects evolving global supply chain conditions and a strategic emphasis on project cost efficiency. As part of a structural adjustment, we have shifted some procurement overseas to meet specific cost and technical requirements. This decision was driven by the fact that certain components and materials are available on the international market at more competitive prices, a difference that remains significant even after accounting for transportation costs and policy incentives.In response to this trend, HDRE has adopted a balanced strategy: we maintain our principle of localizing the procurement of key technological equipment while flexibly leveraging global supply resources. This balanced approach helps ensure both project quality and economic sustainability.

Benefit category	2022	2023	2024
Proportion of local procurement [3]	60.68%	71.00%	59.4%

Local procurement [3]: The local procurement refers to that the material or equipment purchased is designed, manufactured and assembled by Taiwanese companies, or the parts of the aforementioned process is performed by Taiwanese companies, excluding suppliers that act as agencies in Taiwan for distribution and sale of products only.

Trends in Procurement from ISO-Certified Suppliers

HDRE actively prioritizes sourcing from suppliers certified with international standards. The following table illustrates the trend over the last three years regarding the proportion of our procurement from suppliers holding various ISO certifications:

Certification category		2022	2023	2024
Quality Management	Procurement percentage of suppliers comply with ISO 9001	23%	49%	50%
Environmental Management	Procurement percentage of suppliers comply with ISO 14001	26%	29%	26%
Occupational Health and Safety	Procurement percentage of suppliers comply with ISO 45001	22%	28%	24%

Green Procurement Strategy

Green Procurement Policy and Practices

In 2022, HDRE introduced the "HDRE Green (Responsible) Procurement Policy ," integrating environmental and social responsibility principles into procurement practices. This policy forms a key part of HDRE' s sustainable procurement strategy. It provides comprehensive guidelines covering product selection, supplier engagement, and lifecycle management.

In 2024, for our large-scale solar project sites, we have prioritized the adoption of N-type modules. For the same power generation capacity, using N-type modules reduces the number of modules and support structures required, thereby decreasing the amount of assembly and construction materials. Furthermore, we have upgraded to inverters with a 350-rated power to replace the 250-rated models at our solar sites. This has yielded benefits such as improved energy efficiency, reduced resource waste, reduced construction footprint.

Strategic Aspect	Policy Focus	Implementation Methods
Office Environment Practices	• Eco-friendly consumables • Low-carbon transportation • Prioritizing energy-saving equipment	• Using recycled paper products • Adopting electric vehicles for official use • Installing LED lighting • Reducing excessive packaging • Eliminating disposable tableware and cups • Using office appliances with energy-saving labels
Product Selection	• Low energy consumption & low pollution • Use of recycled raw materials • Recyclable green building materials	• Selecting products with energy-saving/eco-friendly labels • Evaluating the life-cycle environmental impact of products • Requiring material traceability
Green Practices at Project Sites	• High-efficiency modules • Resource optimization • Land conservation	• Adopting N-type high-efficiency modules • Upgrading inverters • Using reusable construction materials • Reducing land use area
Supplier Requirements	• Policy declaration • Prioritizing green products • Regular evaluation	• Communicating green procurement requirements to suppliers • Incorporating environmental aspects into supplier performance assessments • Regularly evaluating potential for sustainable partnerships

3.3.3 Procurement for overseas sites GRI 308 GRI 414

HDRE has established a comprehensive supplier management system guided by the principle of prioritizing quality over cost. While ensuring all specifications and quality standards are met, we integrate sustainability performance as a core evaluation criterion. The system encompasses new supplier screening, the ongoing management of existing suppliers, and a tiered guidance and support mechanism.

Supplier Screening and Management Process

Initial Screening

The Procurement Department evaluates potential partners.
Applicants must complete a "Basic Information Assessment Form" and an "Environment,Health, and Safety Management Questionnaire."
A score of 61 or higher is required to qualify.

Sustainability Commitment

Qualified suppliers must sign and return the "Supplier Code of Conduct," the "Contractor Safety and Health Commitment Letter," and the "Joint Occupational Hazard Prevention Agreement."

Becomes a Qualified Supplier/Contractor

Initial Assessment of New Suppliers

【Periodic Monitoring】
The Quality Control Office periodically conducts initial assessments of newly qualified suppliers/contractors to monitor their performance during the early stages of the partnership.

【Irregularis Monitoring】
When the procurement and Environment, Health, and Safety teams visit new suppliers, they also audit their environmental and labor safety practices to assess potential risks.

Graduates from New Supplier Monitoring Program

Periodic Evaluation and On-site Audits

【Annual Evaluation】
The Procurement and Quality Control departments jointly conduct annual evaluations to implement a tiered management system for all partners.

【Irregularis Evaluation】
Cross-departmental teams conduct on-site assessments and provide guidance on Environment, Health, and Safety performance, production processes, and quality control.

Tiered Management and Follow-up

Suppliers scoring below 60 must submit an improvement plan. We continuously track their progress and provide guidance until they meet our standards.

During site visits: If deficiencies are found, the supplier is notified immediately and required to make improvements within a specified timeframe.

Supplier Screening and Evaluation Mechanism

New Supplier Screening GRI 308-1 GRI 414-1

Evaluation Criteria and Sustainability Commitment Requirements

HDRE applies environmental and social responsibility criteria to all new suppliers, making sustainability performance a key evaluation indicator. The assessment process covers three main dimensions: Basic corporate conditions, product and technical capabilities, and sustainability performance, ensuring that suppliers operate with a business philosophy consistent with the company's sustainable development goals.

Assessment Dimensions	Basic Corporate Conditions (10%), Product and Technical Capabilities (60%), Sustainability Performance (30%)
Required Documents	"Supplier Basic Information Assessment Form," "Supplier Environment, Health, and Safety Management Questionnaire"
Qualified Standard	A total assessment score of 61 or higher.
Sustainability Commitment	Qualified suppliers must sign the "Supplier Code of Conduct," the "Contractor Safety and Health Commitment Letter," and the "Joint Occupational Hazard Prevention Agreement."
2024 Screening Results	Number of new suppliers that passed screening: 23 (100% pass rate).

Supply Chain Impact Assessment and Management GRI 308-2 GRI 414-2

HDRE has established a structured framework to assess the environmental and social impacts of its supply chain. On the environmental front, we use Environment, Health, and Safety questionnaires and on-site visits to gain a comprehensive understanding of suppliers' environmental management performance. The 2024 assessment results showed that no suppliers had a significant negative environmental impact; the company continues to monitor key issues such as waste management and energy efficiency. On the social front, we focus on occupational health and safety, labor rights, and safe working environments. Through mechanisms like joint agreement meetings and job hazard analysis, we ensure that suppliers meet our social responsibility requirements. All suppliers have cooperated in implementing the recommended corrective actions and improvement plans.

Environmental Impact Assessment and Improvement Measures GRI 308-2

HDRE conducts systematic assessments of environmental impacts within its supply chain:

Disclosure Item	2024 Implementation Status
Number of suppliers subject to environmental impact assessments	23 new suppliers + 53 existing suppliers
Number of suppliers identified as having significant actual or potential negative environmental impacts	0
Significant actual and potential negative environmental impacts identified in the supply chain	No significant negative impacts were identified. Monitored issues include waste management, energy efficiency, and water resource management.
Percentage of suppliers that agreed to improve following the assessment	Not Applicable (No suppliers with significant negative impacts were identified)
Percentage of suppliers with whom relationships were terminated as a result of the assessment, and the reasons	0% (No relationships were terminated)

Social Impact Assessment and Improvement Measures GRI 414-2

HDRE conducts comprehensive assessments of social impacts within its supply chain:

Disclosure Item	2024 Implementation Status
Number of suppliers subject to social impact assessments	23 new suppliers + 53 existing suppliers
Number of suppliers identified as having significant actual or potential negative social impacts	0
Significant actual and potential negative social impacts identified in the supply chain	No significant negative impacts were identified. Monitored issues include occupational health and safety, labor rights, and safe working environments.
Percentage of suppliers that agreed to improve after the assessment	100% (All suppliers complied with improvement recommendations)
Percentage of suppliers with whom relationships were terminated as a result of the assessment, and the reasons	0% (No relationships were terminated)

Tiered Management Based on Environment,Health, and Safety Questionnaire

To effectively manage the sustainability performance of its suppliers, HDRE has established a three-level supplier management framework. Based on suppliers' scores in the EHS (Environment, Health and Safety) self-assessment questionnaire, suppliers are categorized into Tier A, Tier B, or Tier C, with corresponding management and improvement strategies applied accordingly.

The 2024 assessment results demonstrated strong overall supplier performance, with no suppliers rated Tier C. HDRE continues to monitor and guide Tier B suppliers toward continuous improvement in sustainability performance.

Tier	Score Range	Number in 2024	Proportion	Management Measures
A	81 and above	11	48%	Preferred partners; regular technical exchanges.
B	61 - 80	9	39%	Standard management;annual guidance and on-site visits.
C	60 and below	3	13%	Enhanced guidance and support; improvement required within a specified timeframe.

Implementation of 2024 Improvement Actions

- **On-site Guidance:** Completed Environment, Health, and Safety on-site guidance for 3 new suppliers.
- **Joint Consultation Meetings:** A total of 11 meetings were held, with 118 participants in attendance.
- **Job Hazard Analysis (JHA):** All contractors are required to submit a JHA and update it on a regular basis.

Management and Enhancement of Existing Suppliers GRI 403-7

HDRE has established a tiered evaluation framework for its existing suppliers and contractors, incorporating quality, technical, and sustainability indicators. Supplier evaluations emphasize delivery quality and technical performance, while contractor assessments focus on EHS (Environment, Health, and Safety) compliance and construction management.

Through annual performance reviews, HDRE ensures that all partners consistently meet the company's operational and sustainability standards. In 2024, overall partner performance demonstrated strong compliance and continuous improvement.

Summary of evaluation results by category

This year's evaluation result: 96% of suppliers are designated as 'Preferred,' with no suppliers being placed under review for the past three consecutive years.

Supplier evaluation

Key Assessment Dimensions	Delivery status, quality non-conformance, product inspection, Factory Acceptance Test records, supplier advantages.	
Number Evaluated	28	
Preferred Supplier Ratio	96%	Increased procurement volume; establish long-term partnerships. Deepen collaboration through regular technical exchanges and performance reviews.
Qualified Ratio	100%	Maintain partnership; require continuous improvement. Periodically review performance through annual guidance visits and improvement recommendations.
Suppliers Under Review	0	Required to improve within a specified timeframe and submit an improvement plan. Progress is tracked quarterly until standards are met. If standards are repeatedly not met, the partnership is terminated.

Contractor Evaluation

This year's evaluation results:

Preferred contractors account for 72% of the total.

For the third consecutive year, no contractors have been placed on the observation list.

Key Assessment Dimensions	Environment, Health, and Safety; construction quality; project schedule; handling of quality non-conformance; on-site coordination; technical capabilities.	
Number Evaluated	25	
Preferred Supplier Ratio	72%	Increased procurement volume; establish long-term partnerships. Deepen collaboration through regular technical exchanges and performance reviews.
Qualified Ratio	100%	Maintain partnership; require continuous improvement. Periodically review performance through annual guidance visits and improvement recommendations.
Suppliers Under Review	0	Required to improve within a specified timeframe and submit an improvement plan. Progress is tracked quarterly until standards are met. If standards are repeatedly not met, the partnership is terminated.
Management Mechanisms	Joint consultation meetings, Job Hazard Analysis (JHA), safety and quality plan reviews.	

Supply Chain Management Enhancement Plan

On-site Audits and Occupational Health and Safety Management

HDRE has established a cross-departmental supplier support system that integrates quality control with occupational health and safety management. Through our business relationships, we aim to prevent and mitigate negative occupational health and safety impacts directly linked to our operations, products, or services. A dedicated team, composed of personnel from the Procurement, Environment, Health, and Safety, and Quality Control departments, ensures that work safety and quality standards are upheld at every stage of the supply chain.

We place special emphasis on the occupational health and safety management of its contractors. We require all contractors to sign a "Safety and Health Commitment Letter" and a "Joint Occupational Hazard Prevention Agreement" to establish a comprehensive collaborative safety management mechanism. Through periodic joint consultation meetings and a Job Hazard Analysis system, we manage occupational safety risks at the source, ensuring work safety at every stage of the supply chain.

Statistics on Comprehensive Management Enhancement Measures

Partner Type	Monitoring Mechanism	Quality Control Outcomes	Health and Safety Management Outcomes
Supplier	Product Factory Acceptance Test	Conducted pre-delivery inspections for materials and equipment to confirm compliance with technical specifications and quality standards. A total of 34 Factory Acceptance Tests were completed in 2024, with a 94% pass rate.	Conducted safety tests on special materials to ensure they are free of hazardous substances. Required suppliers to provide Safety Data Sheets. In 2024, all materials met safety standards.
	On-site Audits	A cross-functional team from the Procurement, Environment, Health, and Safety, and Quality Control departments conducted on-site supplier evaluations, comprehensively reviewing production processes, quality control systems, and environmental performance. On-site visits were completed for 18 suppliers in 2024.	Conducted on-site assessments of suppliers' operational environment safety and occupational health management systems, with a special focus on protective measures for high-risk processes. Provided professional guidance to suppliers with lower Environment, Health, and Safety scores.
Contractor	Non-conformance Handling	Issued Corrective Action Requests for non-conforming materials, established a return/exchange mechanism, and tracked the supplier's improvement status. In 2024, all non-conforming materials were successfully remediated and passed re-inspection.	Implemented special management for materials with potential safety risks, such as hazardous material storage regulations and transportation safety requirements, to ensure safety throughout the entire process from supply to use.
	Site Inspections	Conducted unannounced on-site quality spot checks at active construction sites to monitor construction quality and progress, and to resolve on-site issues in a timely manner. 20 site inspections were completed in 2024.	Thoroughly inspected on-site safety facilities and protective measures, verified safety controls for hazardous operations, and assessed the implementation of environmental protection measures. Immediate rectification was required for any safety hazards identified.
	Quality Management	Issued Improvement Notices for quality non-conformances during the construction process, and supervised the handling of engineering deficiencies and compliance with construction standards. In 2024, all identified deficiencies were rectified on schedule.	Established a comprehensive construction safety management system, including personal protective equipment requirements, a permit-to-work system for high-risk operations, and equipment safety inspections, to ensure the safe operation of all contractor personnel.
	Safety Mechanisms	Reviewed contractors' construction safety and quality plans to ensure the implementation of self-inspections and the execution of work-item inspections. Monitored the overall performance of contractors periodically through a quarterly reporting mechanism.	In 2024, 100% of contractors signed the Safety Commitment Letter and the Job Hazard Analysis. A total of 11 joint consultation meetings were held, with 118 participants. For supplier Environment, Health, and Safety educational training, a total of 410 people participated, accumulating 2,460 training hours.

Future Goals for Supply Chain Management

Comprehensive Enhancement of the Quality Monitoring System

HDRE is committed to building a more robust supply chain quality monitoring system. We will achieve this by broadening the scope of site inspections and enhancing the factory acceptance testing process for project materials and equipment, to ensure that every stage meets the highest quality standards. We will continue to promote the extension of the ISO 9001 quality management system to its subsidiaries and will pursue the quality management system verification for the Stellar Energy Technology Inc. in 2025. These efforts aim to establish a unified quality management standard across the group, while also optimizing our construction code system by developing specific standard operating procedures for various types of project sites.

Deepening the Development of a Healthy and Safe Supply Chain

Managing a healthy and safe supply chain will be a key driver of our company's sustainable development. HDRE plans to strengthen its on-site inspection and supplier guidance program, establishing stricter evaluation standards, particularly for key suppliers in areas such as waste management and environmental services. We will build a proactive performance management system, enhance the supplier selection process based on environment, health, and safety criteria, and actively participate in government-led initiatives to elevate the organization's overall healthy workforce practices.

Transition to a Net-Zero Carbon Emission Supply Chain

In response to the global trend of net-zero carbon emissions, HDRE will guide its supply chain partners toward carbon neutrality. Through the deepened implementation of our green procurement strategy, we will prioritize suppliers with environmental certifications and promote the adoption of renewable energy and low-carbon technologies across the supply chain. The company will establish a supplier carbon footprint tracking mechanism to assist our partners in developing carbon reduction plans. Together, we will contribute our corporate strength to address global climate change, achieving a win-win situation for both economic development and environmental protection.

3.3.4 Customer Satisfaction Through HDRE's Service Material Topic: Product Quality and Responsibility

Enhancing the Customer Satisfaction Management System

HDRE recognizes that customer satisfaction is a key measure of sustainable business performance. Therefore, we have established a comprehensive customer satisfaction management system that covers our diverse service areas, including site development and construction, asset management, and green electricity sales. We conduct regular, structured satisfaction surveys to collect customer feedback, which serves as the foundation for continuous service improvement. We are also committed to protecting customer privacy and intellectual property rights, and in 2024, there were no incidents of customer privacy infringement or loss of customer data.

Overall Survey Results

In 2024, HDRE conducted customer satisfaction surveys for clients across its four major business departments. The scope of these surveys included services such as electricity sales, asset management, business development, and Star-Charge fast charging. A summary of the survey results for each department is provided below:

The satisfaction questionnaire gathers feedback on service quality across five key dimensions: Customer Service, Professional Competence, Quality, Delivery, and Overall Evaluation. After compiling and analyzing the results, we engage in further communication with clients regarding any areas of dissatisfaction to better understand the issues and implement service quality improvements. HDRE is committed to protecting client privacy and intellectual property rights associated with data collected from our clients; all data is collected, stored, and processed in strict accordance with the law. In 2024, there were no complaints regarding infringements of customer privacy or the loss of customer data.

2024 Customer Satisfaction Survey Results

In 2024, customer satisfaction surveys were conducted for clients across four business areas: electricity sales, asset management, business development, and charging services.

Business Category	Satisfaction Score	Questionnaire Response Status
Electricity Sales Services	4.54 / 5	A total of 5 client questionnaires were collected.
Asset Management	4.8 / 5	A total of 12 client questionnaires were collected.
Business Development	4.2 / 5	A total of 21 project site questionnaires were collected, comprising 3 sites in the development phase, 4 in the construction phase, and 14 completed sites.
Star Charger Service	4.5 / 5	A total of 1,671 consumer questionnaires were collected.

Customer Feedback Analysis and Improvement Actions

Customer Satisfaction Improvement Process

To systematically enhance customer satisfaction, HDRE has established a standardized improvement process:

01
Analyze low-scoring issues and root causes.
We conduct an in-depth analysis of the root causes for any items that received low scores in the satisfaction survey.

02
Cross-departmental communication & discussion.
The process involves cross-departmental communication and discussion to further investigate the root causes of the identified issues.

03
Formulate improvement measures.
Based on the nature of the problem, we develop specific and feasible improvement plans.

04
Track improvement effectiveness.
We track the effectiveness of our improvement measures, and their implementation results are reviewed during the annual management review meeting.

05
Continuously optimize
processes and continuously optimize our service processes and standards based on the effectiveness of the implemented improvements.

Analysis of Key Areas of Dissatisfaction

HDRE takes customer feedback regarding areas of dissatisfaction seriously, conducting in-depth analysis to implement proactive improvements. In the 2024 survey, the main areas of dissatisfaction were concentrated in the following aspects:

Business Category	Area of Dissatisfaction	Root Cause Analysis	Improvement Measures
Business Development (Development Phase)	The application submission process with government authorities is lengthy.	Delays in the project site review process by local governments led to an unclear outcome, causing delays in the site development schedule.	• Strengthen communication with local government authorities. • Communicate with the site owner via email; both parties agreed to a contract extension. • Improve the quality and completeness of submitted application documents.
Business Development (Construction Phase)	Dissatisfaction with professional competence, quality, schedule control, and overall feedback.	Insufficient construction management and contractor coordination, leading to poor control over the project schedule.	• Provide detailed explanations of completed and pending items in relevant progress meetings. • Enhance communication with and tracking of external contractors. • Establish a more rigorous construction management system.
Business Development (Completion Phase)	Delays in the acceptance schedule caused by construction issues.	Delays in final punch-list items, affecting the handover timeline.	• Implement improvements for specific construction issues. • Strengthen construction quality management. • Improve preparations for the final acceptance process.

Future Outlook

HDRE will continue to uphold customer satisfaction as a core value, continuously optimizing our service processes and enhancing our professional capabilities. In the future, we will focus on the following areas of development:

01 **Digital Customer Service:** We will introduce digital tools to enhance communication efficiency and service transparency.

02 **Enhancement of Professional Capabilities:** We will strengthen professional training for our employees to improve their problem-solving abilities.

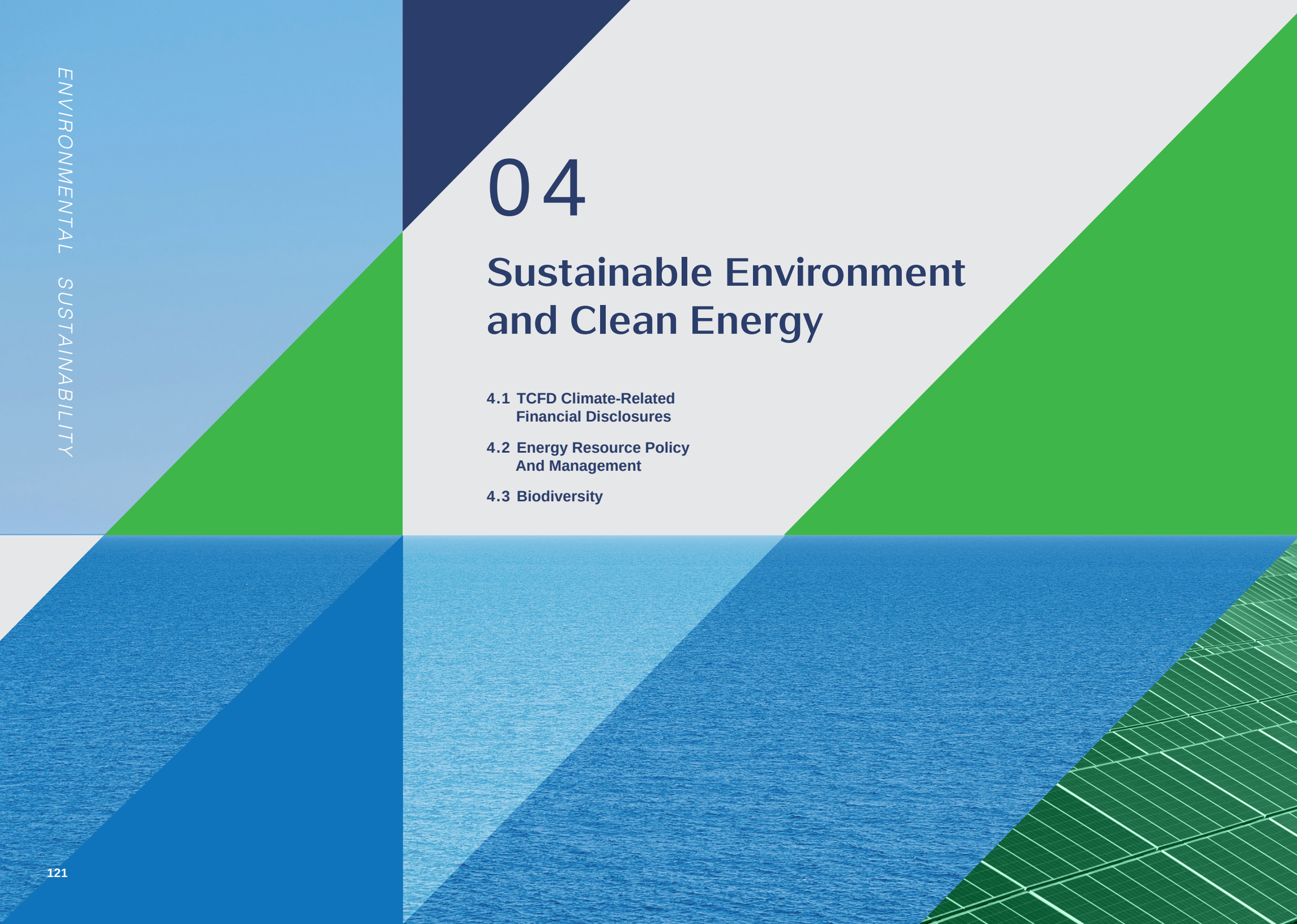
03 **Process Standardization:** We will refine our standard operating procedures to ensure consistent service quality.

04 **Innovative Service Models:** We will expand our range of services to meet the diverse and evolving needs of our clients.

At HDRE, we believe that enduring, trust-based partnerships are built by actively listening to our clients and consistently enhancing our service quality. It is through this collaboration that we can co-create a sustainable future powered by green energy.

04

Sustainable Environment and Clean Energy



CH4 Sustainable Environment and Clean Energy

Core Vision and Commitment

As the impacts of global climate change and extreme weather become increasingly evident, we deeply recognize the intrinsic link between energy management and sustainable development. We hope to accelerate the national clean energy deployment by improving energy efficiency and using renewable energy. In response to national environmental policies and the sustainable concept of the United Nations World Commission on Environment and Development (WCED): "Meeting the needs of the present without compromising the ability of future generations to meet their own needs," we integrate climate-change impacts into our operational planning.

With the "HDRE Energy Sustainable Development Policy" as our main axis, we have formulated environmental energy policies to implement the goal of "promoting circular economy, improving environmental energy performance, and effectively reducing environmental impact," to advance low-carbon operations and embed sustainability into corporate management.

2024 Results and Performance

01 Taipei headquarters achieved **76.88%** green electricity usage.

02 Continued optimization of TCFD climate-related financial disclosures and completed **TNFD nature-related financial disclosure risk and opportunity identification and management** in 2024.

03 HDRE has consistently **completed Scope 1, 2, and 3 greenhouse gas inventories for all domestic offices** and has received third-party verification statements each year, demonstrating our long-term commitment to accurate and transparent GHG management.

04 **0** major environmental law violation incidents.

HDRE's Sustainable Development Progress

The company is steadily advancing various sustainable development goals according to established schedules, with no plan adjustments. Through systematic management mechanisms and continuous investment improvements, we are gradually realizing the vision of net-zero emissions from office locations to comprehensive operations.

Year	Target	Current Implementation Status	Analysis and Description
2025	Taipei headquarters achieves 100% Green Electricity Usage	The Taipei headquarters achieved a green electricity usage rate of 76.88% in 2024.	Although slightly lower than the previous year due to expanded operations and higher total electricity consumption, the company still maintains a high proportion of green electricity usage. The 100% target is expected to be achieved through expanded green electricity procurement in the short term.
2025	All office locations obtain ISO 14064-1 certification	This goal was achieved in 2024.	Successfully completed greenhouse gas inventory for all existing operational office locations for three consecutive years and obtained ISO 14064-1:2018 verification certificates (reasonable assurance level) issued by BSI. New locations will be included in the inventory scope in the following year.
2025	Implement ISO 50001 energy management system	Expected to complete this goal in 2025.	Complete training for responsible personnel in various units in Q2 2025, and plan to complete ISO 50001 energy management system verification in Q4 2025.
2028	Complete 100% green electricity usage in "major operational offices"	Taipei headquarters green electricity usage rate reached 76.88%, Taichung office green electricity usage rate reached 59%.	Currently unable to achieve 100% green electricity usage due to location expansion and limited green electricity supply. Future improvements will be made through renewable energy certificate purchases, self-owned project power allocation, and long-term green electricity contracts.
2030	All office locations achieve net-zero emissions	Continuously increasing green electricity usage at various office locations.	Completed greenhouse gas inventory for all operational office locations and obtained third-party verification. Taipei and Taichung offices achieved green electricity usage rates of 76.88% and 59% respectively, steadily progressing toward the 2030 goal of comprehensive net-zero emissions at all locations.
2050	Achieve comprehensive net-zero emissions for all operational locations	Continuously increasing green electricity usage at various office locations and planning carbon inventory for project sites.	Established institutionalized carbon inventory foundation and completed ISO 14064-1:2018 verification for all operational office locations. Green electricity usage ratio steadily increasing, initiated low-carbon transportation transformation and energy-efficient equipment replacement planning. Future plans include expanding inventory coverage, implementing energy management systems and ISO 50001 standards, and phasing in internal carbon pricing mechanisms.

4.1 TCFD Climate-Related Financial Disclosures

As extreme climate conditions intensify and the international community calls for active climate change action, HDRE is actively establishing risk management mechanisms, evaluating potential risks and opportunities associated with climate change across various aspects, and aligning our practices with international sustainability and climate disclosure standards. Through well-defined response measures and management policies to enhance the company's resilience to potential climate risks and strengthen operational sustainability.

TCFD Four Pillar

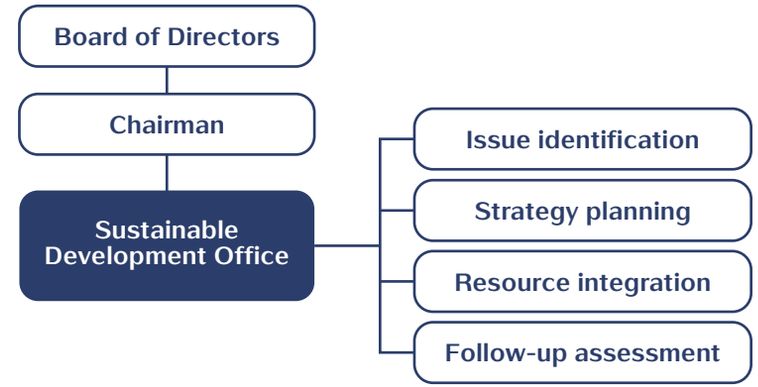
Pillar	Key Implementation Items	Responsible Units
Governance	1. The Sustainability Development Department is the core unit for promoting sustainable development, including climate issues, and refers to the TCFD framework in the 2024 sustainability report to explain climate risks and opportunities. 2. The Board of Directors regularly hears reports from the Sustainability Development Department on the implementation of major sustainability issues, TCFD climate information, and greenhouse gas inventory pathways, and provides feedback on report content.	Board of Directors Sustainability Development Department
Strategy	1. Identify major risks and opportunities through climate risk and opportunity matrix. 2. Assess potential climate impacts on HDRE through scenario analysis. 3. Complete inventory and obtain ISO14064-1 third-party verification for Taipei, Taichung, and other office locations. 4. As of the end of 2024, Taipei headquarters achieved 76.88% green electricity usage; Taichung office achieved 59% green electricity usage in 2024. 5. Formulated "Green Procurement Policy" as the basis for management and implementation, incorporating environmental and social performance into procurement decisions, encouraging upstream and downstream supply chain vendors to follow suit.	Sustainability Development Department Various Units
Risk Management	1. Identify climate risks and opportunities based on the TCFD framework, converge issues through interviews, and then focus on major climate risks and opportunities through questionnaire responses. 2. Integrate current management policies for major climate risks and opportunities.	Sustainability Development Department Various Units
Metrics and Targets	1. Plan to continuously complete Scope 1, 2, and 3 greenhouse gas inventory operations for all existing office locations in 2025 2. New locations will be included in the inventory scope in the following year based on actual operational timing, gradually expanding audit coverage to ensure completeness of information disclosure and consistency of management systems. 3. Set green electricity usage targets, regularly track target achievement, and actively respond to climate change-related risks. 4. In 2024, subsidiary Star Aquaculture began implementing water management systems for aquaculture operations, with real-time water usage monitoring. 5. Expand localization and green procurement scope, shorten delivery times, reduce raw material transportation distance and carbon emissions, while increasing local employment opportunities to promote socio-economic development.	Sustainability Development Department Various Units

4.1.1 Climate Governance

Climate Governance Structure

Under the leadership of the Chairman, the Sustainability Development Department identifies the company's climate change risks and opportunities, with oversight from the Board of Directors. Implementation includes issue identification, strategic planning, resource integration, and tracking and assessment from top to bottom, continuously promoting corporate sustainable development goals.

Climate risks and opportunities are observed and identified by various units from daily operations and discussed, analyzed, and identified as short, medium, and long-term risks and opportunities with the Sustainability Development Department during sustainability interviews.



4.1.2 Climate Risk and Opportunity Identification GRI 201-2

To promote corporate sustainable development, the company uses the Task Force on Climate-Related Financial Disclosures (TCFD) as a framework to conduct cross-departmental climate education training and interviews, strengthening employees' foundational understanding of climate change and the TCFD framework, and integrating climate awareness into their work scope.

Furthermore, by designing, administering, and analyzing internal climate risk and opportunity questionnaires, HDRE applies a risk matrix methodology based on frequency of occurrence and level of impact. This approach enables the systematic identification of the company's key climate risks and potential opportunities, while integrating relevant indicators and targets to strengthen overall climate governance and management performance.

TCFD Climate Risk and Opportunity Identification Process

Climate-related Data Collection

- Collect data on physical risks, transition risks, and opportunity categories based on the TCFD framework.
- Focus on renewable energy industry and operational locations, gathering data from international reports, Taiwan Climate Change Adaptation Platform, online information, and news.

Department Interviews

- Conduct meetings with responsible department heads based on TCFD framework to inquire about operational conditions, helping identify potential climate risks and opportunities.
- Ask department heads about current climate-related management policies and targets, linking to TCFD metrics and targets.

TCFD Questionnaire

- Design TCFD risk and opportunity questionnaires based on data collection and department interview results, distributing to department heads to assess potential climate impacts and frequency on their units.

Materiality Matrix Analysis

- Conduct matrix analysis based on collected questionnaire responses to identify major climate risks and opportunities, illustrating them in a matrix diagram, evaluating impact level and frequency, subsequently linking management policies and metrics and targets.

Setting Metrics and Targets

- For identified major climate risks and opportunities, integrate interview content to systematize current management policies and metrics and targets.

TCFD Climate Risk and Opportunity Items

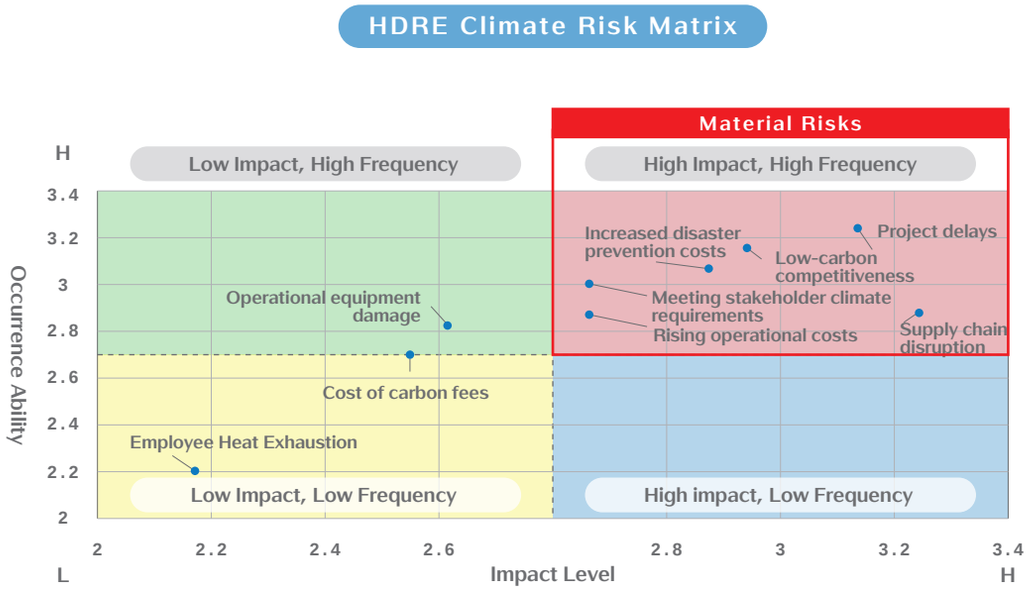
Based on climate-related data collection, TCFD framework, and department head interview results, we converged on 9 climate risks and 7 climate opportunities, designing these 16 TCFD risks and opportunities into questionnaires distributed to department heads. Matrix analysis of collected responses identified major climate risks and opportunities.

Risk Items

Risk	Risk Category	Risk Item	Potential Operational and Financial Impact (Risk Impact Description)
Physical Risks	Acute - Typhoons/ Heavy Rainfall	Project Delays	Abnormal events caused by extreme weather such as typhoons and heavy rainfall, including flooding at project sites and transportation delays, leading to project delays or increased operational costs.
		Increased Disaster Prevention Costs	To prevent climate-related disasters, the company needs to enhance equipment wind resistance, heat resistance, and flood prevention capabilities, resulting in additional costs.
		Operational Equipment Damage	Increased frequency of typhoons and heavy rainfall may cause direct damage to operational sites or information equipment, potentially affecting power generation or changes in aquaculture water quality.
		Supply Chain Disruption	Raw material suppliers affected by climate disasters such as floods or droughts, affecting normal supply and causing supply chain disruptions.
	Chronic - Long-term Climate Effects	Rising Operational Costs	Dramatic weather variations make existing risk assessment systems unable to accurately predict, increasing cost uncertainty and management pressure.
		Employee Heat Exhaustion	Long-term temperature increases raise the frequency and possibility of employee heat exhaustion, affecting on-site employee health and increasing operational disruption risks.
Transition Risks	Policy and Legal	Cost of Carbon Fees	To achieve 2050 net-zero emissions targets, governments propose greenhouse gas reduction or carbon fee policies requiring companies to reduce emissions; with tightening regulations globally, potential carbon fee costs will rise.
	Market Risk	Low-Carbon Competitiveness	Customers prefer low-carbon products, requiring HDRE to reduce product carbon footprint across the supply chain, incurring costs to transform the supply chain to meet market demands.
	Reputation Risk	Meeting Stakeholder Climate Requirements	Whether HDRE can help enterprises with low-carbon transformation and energy conservation may affect stakeholders' (shareholders, customers, suppliers, etc.) perception of company image and reputation.

Climate Risk Matrix Analysis Results

In 2024, 6 major climate risks were identified:



01 Increased disaster prevention costs

02 Meeting stakeholder climate requirements

03 Supply chain disruption

04 Low-Carbon Competitiveness

05 Rising operational costs

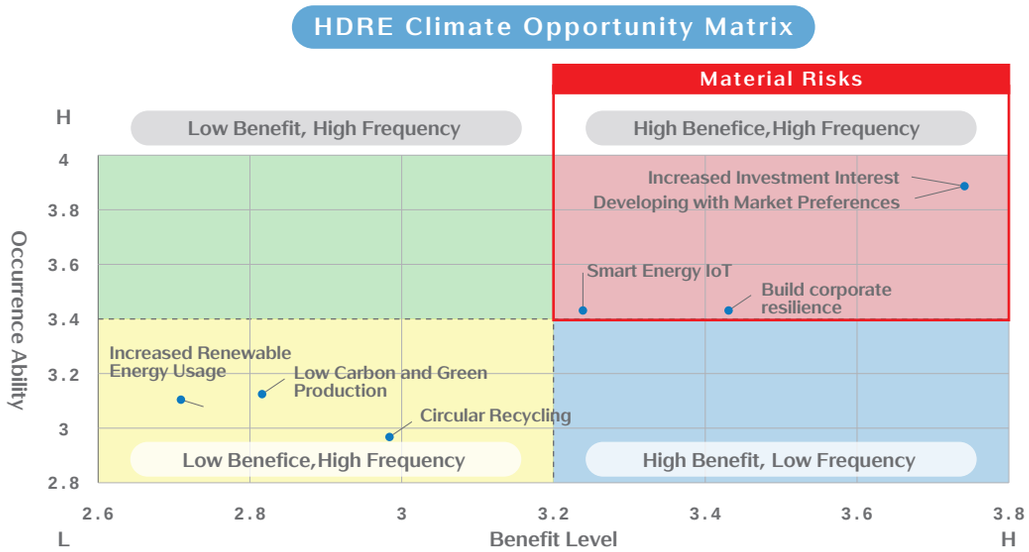
06 Project delays

Opportunity Items

Opportunity Category	Opportunity Item	Potential Operational and Financial Impact (Opportunity Benefit Description)
Resource Efficiency	Low-Carbon and Green Production	Using more efficient production equipment to reduce electricity, water usage, or waste generation during assembly, lowering production costs.
Products and Services	Smart Energy IoT	Through green electricity consulting, planning, and sales, helping customers obtain optimal electricity scheduling and stable green electricity, increasing profit opportunities.
	Circular Recycling	Decomposing solar panels into different materials and using these materials to produce new solar panels or other products, achieving more environmentally friendly and sustainable solar power generation, attracting more customer cooperation and increasing profit opportunities.
Market	Developing with Market Preferences	Due to government policies and other factors, market and customer demand for green energy management, electric charging stations, and solar panels increases, raising profit opportunities.
	Increased Investment Interest	Rising green energy awareness and demand increase investor interest in green energy industries, making HDRE's funding sources more abundant.
Energy Sources	Increased Renewable Energy Usage	Besides supplying renewable energy to customers, HDRE uses green electricity in project construction and daily operations, minimizing organizational carbon emissions and product carbon footprint, enhancing product competitiveness and increasing profit opportunities.
Resilience	Building Corporate Resilience	Actively monitoring climate risks and opportunities, ensuring the company's disaster response capabilities and maintaining sensitivity to climate opportunities.

Climate Opportunity Matrix Analysis Results

In 2024, 4 major climate opportunities were identified:



01 Increased Investment Interest

02 Developing with Market Preferences

03 Smart Energy IoT

04 Build corporate resilience

4.1.3 Climate Management Policies

The company establishes comprehensive climate risk and opportunity management policies based on TCFD recommendations, assessing climate impacts on operations and setting corresponding management approaches to strengthen climate resilience and seize green transformation opportunities.

Climate Risk Management Measures

Risk Category	Risk	Risk Impact	Operational or Financial Impact	Management Approach	Short/Medium/Long-term Targets
Physical Risks	Acute - Typhoons/ Heavy Rainfall	Project Delays	• Construction delays Flooding at project sites • Logistics disruption Transportation delays or personnel injuries • Cost increases Extended construction periods and rising costs	1.Early assessment Conduct climate risk assessment before project development 2.Response planning Assess climate factors (rainy season, typhoons) to arrange engineering design and construction schedule 3.Quality standards Implement standard operating procedures and progress tracking 4.Real-time monitoring Integrate data from various stages through AI for real-time monitoring	• Short-term:Establish climate change risk assessment project schedule management mechanism • Medium-term:Optimize project processes to reduce climate-related delays • Long-term:Develop comprehensive climate risk assessment and management system
		Increased Disaster Prevention Costs	• Equipment strengthening Enhance equipment wind resistance, heat resistance, and flood prevention • Maintenance frequency Increase inspection frequency during operations • Cost pressure Rising additional protection and maintenance costs	1.Climate adaptation design Incorporate extreme climate conditions into project design considerations 2.Equipment differentiation Select appropriate protective designs based on regional climate characteristics 3.Optimized procurement Balance equipment price and disaster resistance quality 4.Risk assessment Regularly assess climate-related risk factors and make corresponding adjustments	• Short-term:Strengthen equipment weather resistance research, enhance protection capabilities • Medium-term:Develop new equipment adapted to extreme weather • Long-term:Establish complete climate risk assessment system, reduce climate-related equipment losses
		Supply Chain Disruption	• Material shortage Poor weather affects material and equipment port entry • Material delays Transportation delays affect construction progress • Operational disruption Suppliers affected by disasters unable to supply normally	1.Diversified supply Actively develop suppliers to handle future uncertainties 2.Localization Prioritize local suppliers to reduce transportation risks 3.Inventory management Appropriately increase critical material inventory 4.Risk diversification Avoid single suppliers, diversify supply risks	• Short-term:Establish supply chain climate risk assessment mechanism • Medium-term:Develop more diverse supplier networks, enhance supply resilience • Long-term: Establish supply chain partner network to jointly address climate risks

Risk Category	Risk	Risk Impact	Operational or Financial Impact	Management Approach	Short/Medium/Long-term Targets
Physical Risks	Chronic - Long-term Climate Effects	Rising Operational Costs	• **Assessment difficulties** Dramatic weather variations make risk assessment difficult and increase cost prediction and planning difficulty • **Management complexity** Increased operational management pressure	**1.Development assessment** Use Solarpro to simulate 10-year sunshine during project development to confirm power generation benefits **2.Risk prevention** Install protective measures around project sites, such as lightning rods, improved drainage, regular clearing of surrounding environment	• Short-term:Complete climate risk scenario analysis, incorporate into decision-making process • Medium-term: Develop climate-adaptive operational models • Long-term:Establish climate-resilient business models, transform risks into competitive advantages
Transition Risks	Market Risk	Low-Carbon Competi-tiveness	• **Customer preference** Increased demand for green products • **Transformation costs** Increased supply chain low-carbon transformation costs • **Equipment renewal** Low-carbon equipment asset upgrade expenditures	**1.Green design** Incorporate green design assessment **2.Sustainable procurement** Purchase modules or materials with higher power generation efficiency, reduce disposal or stockpiling quality issues **3.Pricing strategy** Maintain competitiveness through cost control and efficiency improvement	• Short-term:Collaborate with financial institutions to provide green finance solutions for customers • Medium/Long-term:Establish green product and service system, lead indus-try development
	Reputation Risk	Meeting Stake-holder Climate Require-ments	• **Brand evaluation:** Corporate low-carbon image affects market perception • **Investment attractiveness:** ESG performance affects investor decisions • **Social recognition:** Increasing social attention to environmental protection and sustainable development	**1.Regular communication:** Regularly explain HDRE's current status and future plans through investor conferences, engaging with stakeholders **2.Sustainability disclosure:** Regularly publish sustainability reports, demon strating HD's commitment to climate, low-carbon, and energy management issues	• Short-term:Combine campus solar facilities construction with energy education promotion • Medium/Long-term:Become a sustain-able development model enterprise, leading industry transformation

Climate Opportunities and Development Strategies

Opportunity Type	Opportunity Item	Operational or Financial Impact	Management Approach	Short/Medium/Long-term Targets
Resource Efficiency	Energy Optimi-zation Manage-ment	• **Cost reduction** Lower operating costs through improved energy efficiency • **Operational stability** Reduce operational risks from energy consumption fluctuations • **Sustainable development** Meet environmental requirements, enhance corporate competitiveness	**1.Energy conservation measures** Promote RE100 plan in offices **2.Resource management** Optimize resource allocation, reduce waste **3.System integration** Continuously optimize IAAS-land development, project construction, (transmission, distribution) PAAS-AI real-time monitoring integration, (sales) SAAS-one-click green electricity purchase APP	• Short-term: Promote energy-saving or low-energy consumption development in operating areas • Medium-term: Establish energy management system, optimize overall energy efficiency • Long-term: Achieve energy self-sufficiency in operations
Products and Services	Green Electrici-ty Integra-tion Solutions	• **Green electricity supply** Provide integrated solutions for enterprises to use green electricity for emissions reduction • **Digital services** Provide value-added services through data analysis and AI • **Customer satisfaction** Enhance customer experience and satisfaction with green electricity services	**1.Smart monitoring:** Self-developed smart green electricity IoT platform system for climate prediction and real-time power monitoring **2.Customer experience:** Create and implement customer satisfaction surveys to understand concerns **3.Product innovation:** Continuously emphasize "Energy IoT" concept, optimizing various green electricity application scenarios	• Short-term: Optimize customer service processes, improve satisfaction, reduce surplus electricity through generation-consumption matching algorithms • Medium-term: Improve product cost-performance ratio, launch multi-tiered product solutions for different markets • Long-term: Continuously integrate AI technology, establish green electricity ecosystem, provide comprehensive energy solutions
Market	Growing Green Energy Demand	• **Market expansion** Government support for green electricity, committed to increasing renewable energy ratio • **Emerging demand** Rapid rise of AI-related industry chains due to technological progress, significantly increasing electricity demand • **Industry transformation** Expanding from financial holdings to SME customers, setting RE100 and net-zero carbon targets	**1.Market development:** Company targets becoming a smart power company, committed to promoting green electricity popularization **2.Overseas expansion:** First entering Japan and Australia markets, accumulating green electricity trading experience **3.Innovative services:** Integrate resources to launch corporate carbon reduction solutions	• Short-term: Continuously increase renewable energy generation, simultaneously develop diverse renewable energy • Medium-term: Continue expanding green energy business in other countries • Long-term: Develop diversified energy services to meet different customer needs
Resilience	Climate Adapta-tion	• **Operational resilience** Enhance operational resilience against climate change • **Risk reduction** Reduce adverse impacts of extreme weather on business • **Opportunity capture** Identify and utilize new opportunities from climate change	**1.Risk assessment:** Already implemented TCFD, planning to implement TNFD **2.Innovative technology:** Develop innovative technologies to address climate change **3.Diversification:** Business diversification to reduce climate risks of single business lines	• Short-term: Complete climate risk assessment system construction • Medium-term: Integrate climate resilience into all business areas • Long-term: Establish comprehensive climate-adaptive organizational structure and business model

4.1.4 Climate Risk Scenario Analysis

Taiwan's steep terrain and highly variable climate lead to uneven rainfall distribution, resulting in seasonal and regional water shortages, as well as flooding during typhoon and rainy seasons. In addition, increasingly stringent environmental regulations—such as potential future carbon-related fees and emission control measures—may increase operational costs. Accordingly, HDRE carefully assesses both physical and transition risks, adopting a rigorous approach to evaluate and manage their potential impacts.

Based on the results of the material risk matrix, the company's most significant physical risk is the occurrence of acute typhoons and heavy rainfall, which could cause project delays, higher disaster prevention costs, equipment damage, and supply chain disruptions. HDRE evaluates these risks during the pre-development phase of each project, proceeding to design and construction only after passing a comprehensive assessment. Therefore, the physical risk scenario analysis focuses primarily on flood risks affecting office locations.

For transition risks, the key issues identified are market risk (price competitiveness), reputation risk (meeting supply chain climate requirements), and policy/legal risk (carbon fee costs). These transition risks are regularly discussed in cross-departmental meetings. The corresponding scenario analysis evaluates HDRE's exposure to these risks under multiple transition pathways for the period 2024 – 2050.

Physical Risk: Operational Site Flood Risk Analysis

Using the IPCC AR6 scenario framework, HDRE adopted the SSP5-8.5 high-emission pathway for scenario simulation and analysis. Based on data from Taiwan's National Science and Technology Center for Disaster Reduction (NCDR) Climate Change Disaster Risk Adaptation Platform, the company projected end-of-century (2081-2100) climate conditions. By overlaying HDRE's nationwide operational sites onto township and district flood potential maps, we identified localized exposure levels and developed corresponding risk management measures.

HDRE applied the Taiwan Geospatial One-Stop (TGOS) climate disaster risk layer as its analytical foundation. In this system, risk levels are categorized as follows: Levels 1-2 (low risk), Level 3 (medium risk), and Levels 4-5 (high risk). Disaster potential scores are calculated on a 0-125 scale—Level 1: 0-25, Level 2: 26-50, Level 3: 51-75, Level 4: 76-100, and Level 5: 101-125.

According to the assessment results, HDRE's Taipei and Kaohsiung offices currently face Level 5 (very high) flood potential, while the Tainan Jiali office is also projected to experience high flood potential in the future. These findings inform the company's future flood-resilience planning and climate adaptation measures.

HDRE Office Flood Potential Risk Levels

Name	Address	Current Risk	Future Estimated Risk
Taipei Headquarters and Offices	No. 35, Dexing W. Rd., Shilin Dist., Taipei City No. 33, Dexing W. Rd., Shilin Dist., Taipei City No. 37, Dexing W. Rd., Shilin Dist., Taipei City	Level 5	Level 5
Taipei Hong-Pu Office	No. 7, Dexing W. Rd., Shilin Dist., Taipei City		
Taipei Yangde Office	No. 88, Sec. 6, Zhongshan N. Rd., Shilin Dist., Taipei City		
Taichung Office	No. 360, Sec. 2, Taiwan Blvd., North Dist., Taichung City	Level 3	Level 4
Tainan Xuejia Office	No. 151, Heping Rd., Xuejia Dist., Tainan City	Level 3	Level 2
Tainan Jiali Office	No. 260-1, Jialixing, Jiali Dist., Tainan City	Level 4	Level 5
Kaohsiung Office	No. 56, Minsheng 1st Rd., Xinxing Dist., Kaohsiung City	Level 5	Level 5
Penghu Office	No. 21, Huimin New Village, Magong City, Penghu County	Level 1	Level 1

Flooding Potential Risk Level of HDRE Office

Scenario Settings

- We follow the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report, using "Representative Concentration Pathways (RCPs)" to define future climate change scenarios, with RCP8.5 as the greenhouse gas emission reference scenario.
- RCP 8.5 is a high emission scenario, with radiative forcing per square meter increasing to 8.5 watts by the end of the century, with business-as-usual carbon reduction policies and no additional government efforts, leading to continued increases in atmospheric greenhouse gas concentrations and warming of nearly 4° C by the end of this century.

Scenario Parameters

This analysis uses flood scenario risk maps as the basis, with risk determination considering the area's hazard, vulnerability, and exposure indicators, reflecting population risk levels potentially impacted by flooding under extreme rainfall scenarios due to climate change. Flood potential indicator levels for each township/district include current and future estimated levels.

Indicator	Definition	Disaster Type	Indicator Selection
Hazard (H)	Climate change-induced climate characteristic impacts	Flood disaster	Baseline and future estimated probability of "rainfall exceeding 600mm in 24 hours"
Vulnerability (V)	System impact level when facing climate change hazards	Flood disaster	Analyze flood indicators (relatively flood-prone areas) based on current 24-hour 600mm quantitative rainfall flood simulation maps
Exposure (E)	Objects potentially affected by disasters	Flood disaster	Represented by township/district population density; higher population density areas are more directly impacted when disasters occur

Taipei Headquarters and Offices

Tainan Jiali Office

Taichung Office

Kaohsiung Office

Tainan Xuejia Office

Penghu Office

Data Sources

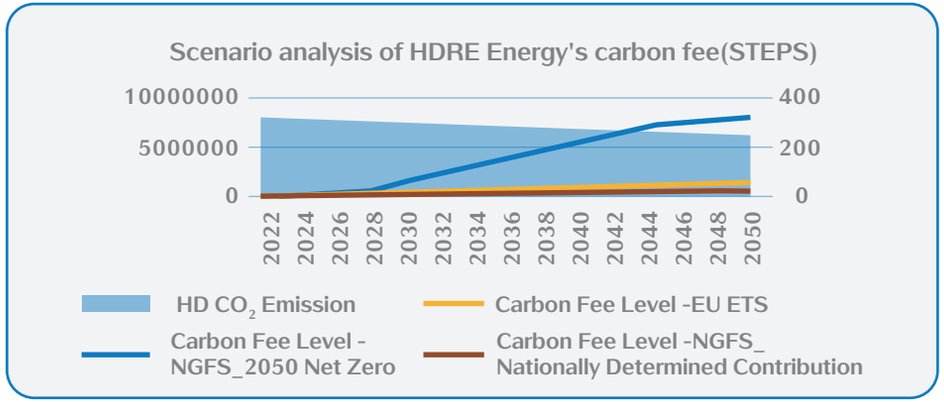
- Ministry of Science and Technology "Taiwan Climate Change Projection Information and Adaptation Knowledge Platform" (TCCIP)
- National Science and Technology Center for Disaster Reduction - Climate Change Disaster Risk Adaptation Platform (Dr.A)

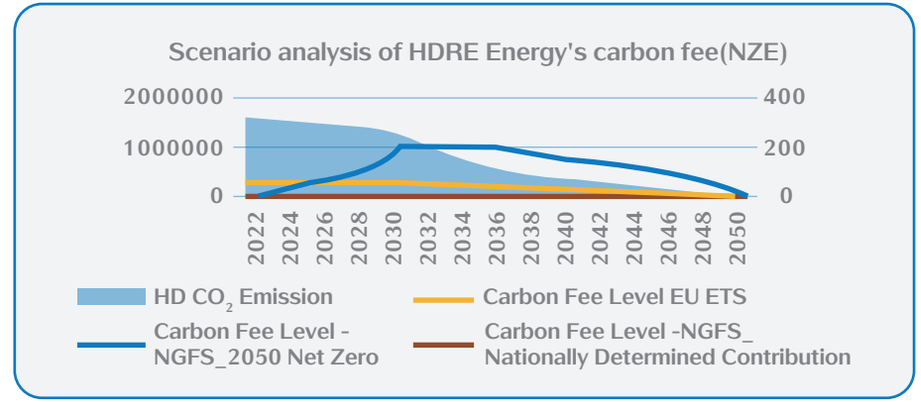
Transition Risk: Carbon Fee Risk Analysis

To support Taiwan's "2050 Net Zero Emissions" goal, the government has announced the first wave of carbon fee collection targets. In 2024, HDRE's total Scope 1 and 2 greenhouse gas emissions reached 407.8831 metric tons CO_2e. If the government expands the scope of carbon fee collection in the future, it may impact the company's operating costs and gross profit margins.

Accordingly, HDRE conducted a carbon fee scenario analysis using three carbon emission pathways proposed by the International Energy Agency (IEA) — the Stated Policies Scenario (SPS), Announced Pledges Scenario (APS), and Net Zero Emissions by 2050 Scenario (NZE). These were combined with carbon price forecasts referenced from the Environmental Protection Administration's Carbon Fee Rate Review Committee projections beyond 2030 to assess the company's financial exposure under different transition pathways from 2030 to 2050.

HDRE Carbon Fee Scenario Analysis





Estimated Year(New Taiwan dollar)		2030	2040	2050
Carbon Emission Scenario	Carbon Fee Scenario			
STEPS	NGFS 2050 Net Zero suggested rate	1,716,219	4,874,196	9,573,108
	NGFS NDC suggested rate	60,712	395,096	752,775
APS	NGFS 2050 Net Zero suggested rate	1,480,391	2,915,552	3,825,531
	NGFS NDC suggested rate	52,369	236,331	300,818
NZE	NGFS 2050 Net Zero suggested rate	1,290,999	1,095,520	0
	NGFS NDC suggested rate	45,669	88,801	0

According to the scenario analysis results, under three carbon emission and carbon fee scenarios, the maximum projected carbon fee for HDRE is NT$4,874,196, equivalent to approximately 0.48% of the company's 2024 operating revenue (NT$10,125,465,000). This figure does not constitute a material financial impact on HDRE's operations.

Nevertheless, HDRE continues to closely monitor its greenhouse gas emissions. As of 2024, the Taipei office achieved a 76.88% green electricity usage rate, while the Taichung office reached its annual target of 59%, demonstrating steady progress toward the company's long-term decarbonization objectives.

4.2 Energy Resource Policy and Management Material Topic: Greenhouse Gas Management

Environmental Energy Policy

1. Establish corporate sustainable development goals and implement and regularly review performance.
2. Promote circular economy, provide sustainable clean energy, effectively improve environmental performance, and reduce environmental impact.
3. Promote full employee participation in quality control, environment and safety and health, health promotion, and energy efficiency improvement activities, and continuously optimize.
4. Support environmentally friendly design products and green procurement.
5. Develop smart monitoring green technology.
6. Reduce ecological damage, implement environmental and safety and health measures.
7. Strive for sustainable development of enterprise, environment, and society.

Material Topic: Greenhouse Gas Management

Impact on Economy, Environment, and People	Commitments and Results	Targets
Positive Impact (Opportunities)	Company's Policy and Commitments on Greenhouse Gas Management	Short-term Targets (1-2 years)
• **Economic benefit enhancement:** Improve energy efficiency, reduce carbon fee and future carbon tax risks; strengthen energy autonomy through self-owned project green electricity supply, reducing dependence on external markets. • **Environmental performance improvement:** Effectively reduce Scope 1 and Scope 2 emissions, systematically manage Scope 3 through inventory, reducing long-term impacts on climate and ecosystems. • **Positive workplace benefits:** Encourage employees' low-carbon commuting and remote work, enhancing workplace friendliness and quality of life, respecting and practicing work and health rights.	• **Scientific management commitment:** Strictly follow ISO 14064 international standards, establish annual third-party verification mechanisms, ensuring greenhouse gas inventory data credibility. • **Green electricity priority strategy:** Prioritize use of self-owned project green electricity and Taiwan Power green electricity projects. • **Net-zero transformation pathway:** Set 2030 corporate operations carbon neutrality medium-term goal, gradually moving toward 2050 net-zero emissions vision.	• **Green electricity coverage improvement:** Fully implement self-owned and Taiwan Power purchased green electricity in 2025, Taipei headquarters green electricity usage rate above 90%. • **Data system establishment:** Improve employee commuting and business travel data tracking processes, establish complete Scope 3 carbon emission database. • **Certification system completion:** Obtain ISO 50001 energy management system certification and pass BSI verification in Q4 2025.
Negative Impact (Risks)	2024 Results	Medium/Long-term Targets (3-5 years)
• **Transformation cost risks:** High initial investment costs for green electricity transformation and carbon inventory systems, requiring careful control of implementation costs and maintenance burden. • **Carbon reduction gap challenges:** Green electricity supply not yet 100% coverage, remaining carbon emission issues require further expansion of green electricity coverage and efficiency monitoring. • **Adaptation challenge management:** Employees adapting to policy changes in commuting and work patterns may face adaptation pressure if communication is insufficient; need to monitor privacy and commuting data collection compliance.	• **Self-generated green electricity establishment:** Successfully established self-generation and self-consumption green electricity supply chain, annual self-generated green electricity reached 144,024 kWh, average generation cost about NT$4.5/kWh, total cost savings about NT$650,000. • **Green workplace culture:** Provide commuting subsidies, low-carbon transportation incentives, and sustainable travel guidelines, encouraging employees to adopt carbon reduction behaviors, promoting overall corporate carbon footprint reduction. • **Supply chain risk management:** Establish regular supply chain carbon emission audit mechanisms, identifying high-emission items and potential climate regulatory risks as important criteria for supplier selection.	• **Management system expansion:** Complete energy management system (EMS) establishment for new locations by 2028, enhancing real-time energy monitoring capability for office spaces. • **Supply chain carbon reduction:** Establish supply chain carbon footprint tracking system, promoting partners' carbon emission disclosure and reduction actions. • **Operational carbon neutrality:** Achieve corporate operational carbon neutrality target by 2030.

4.2.1 Energy Usage Management GRI 302-1 GRI 302-4

Energy Management Policy and System

Led by the Environmental Safety and Health Department, HDRE manages energy performance in accordance with relevant energy management regulations and the company's sustainability policy of "improving environmental and energy performance."

Regular energy review meetings are held to evaluate progress, identify opportunities for improvement, and formulate energy management plans. These plans are disclosed internally to ensure transparency and alignment across departments. Through this systematic approach, HDRE aims to achieve the following five key objectives.

Five Major Energy Management Objectives

01 **Improve Energy Efficiency**
Optimize energy allocation through equipment replacement and smart monitoring systems

02 **Comply with Regulations**
Ensure compliance with energy management related regulations

03 **Avoid Energy Waste**
Properly invest energy resources, establish conservation culture

04 **Achieve Low-Carbon Operations**
Plan energy resource efficiency, move toward net-zero goals

05 **Quantitative Indicator Management**
Ensure solid completion of energy-saving indicators, continuously improve performance

ISO 50001 Energy Management System Implementation Status

The company initiated planning for the establishment and implementation of the ISO 50001 Energy Management System in Q3 2024 and is expected to complete third-party verification by Q4 2025. Through this process, HDRE aims to realize its green operation policies by achieving measurable improvements in energy efficiency and overall environmental performance.

Item	Planning Schedule	Implementation Status	Expected Benefits
ISO 50001 System Establishment	Begin implementation assessment Q3 2024	1. Q3 2024 implementation assessment 2. Q4 2024 procedure document establishment	Systematic energy management
Third-party Verification	Q4 2025	Establish relevant energy indicator items according to sustainable development policy objectives	Monitoring and measurement indicators
Energy Baseline Establishment	Q1 2025	1. Based on performance indicators, collect and analyze energy baselines 2. Conduct unit energy identification 3. Expected to complete baseline establishment and statistics Q2-Q3 2025	Quantified energy-saving effectiveness
Energy Performance Indicators Setting	Q4 2024	Energy performance measurement indicator formulation	Continuous improvement mechanism
Third-party Verification Obtained	Expected Q4 2025 completion	1. Q1 2025 expand verification scope confirmation 2. Q2-Q3 2025 execute system operation and record management 3. Q4 2025 complete system verification	Systematic energy management effectiveness
Energy Management System Continuous Improvement	Regular review and data analysis after system verification	-	Continuous improvement

Energy Usage Statistics and Analysis GRI 302-1

Total Energy Consumption Statistics for Recent Three Years [1]

Energy Type		2022		2023		2024		Annual Change Rate
		Energy Usage (L, kWh)	Heat Value (GJ)	Energy Usage (L,kWh)	Heat Value (GJ) [2]	Energy Usage (L,kWh)	Heat Value (GJ)	
Total Fossil Fuel Usage	95 Unleaded	14,108.44	460.43	14,468.49	472.18	5,490.56	189.57	-63%
	92 Unleaded	4,965.00	162.03	5,120.16	167.10	17,364.83	600.83	+239%
	Premium Diesel	14,042.18	493.52	24,268.23	852.92	20,797.888	743.49	-14%
Grid Electricity (kWh)		263,382	493.52	220,342	792.84	584,025.7951	2,102.49	+165%
Renewable Energy		29,050	104.53	167,821	603.86	144,024	518.49	-14%
Energy Structure Analysis								
Total Heat Value (GJ)		2,168.227		2,888.905		4,154.87		+43.8%
Grid Electricity Percentage[2]		43.71%		27.44%		50.60%		+84.40%
Renewable Energy Percentage[3]		4.82%		20.90%		12.47%		-40.33%
Energy Intensity (GJ/Million NT$)		0.4284		0.4946		0.4103		-17.04%

1. Internal boundary coverage includes: Taipei headquarters and offices, Taichung office, Tainan Xuejia and Jiali, Kaohsiung, Penghu.
2. Grid electricity percentage = Electricity usage (GJ) / Total heat value (GJ).
3. Renewable energy percentage = Renewable energy usage (GJ) / Total heat value (GJ).

4.2.2 Greenhouse Gas Management GRI 305-1 GRI 305-2 GRI 305-3

Greenhouse Gas Management Policy and Structure GRI 305-1

Through inventorying corporate greenhouse gas emissions, companies can understand emissions and make improvements from the source, moving toward net-zero carbon emissions goals. HDRE has conducted comprehensive greenhouse gas inventories annually since 2021, covering Scope 1 (direct emissions), Scope 2 (indirect energy emissions), and Scope 3 (other indirect emissions).

Climate Action Philosophy

At HDRE, we believe that "climate action starts from within." The company has progressively adopted self-generated and self-consumed renewable electricity, establishing a clear roadmap toward achieving carbon neutrality by 2030.

Greenhouse gas inventory data serves not merely as a disclosure requirement, but as a strategic foundation for action—guiding HDRE in formulating targeted emission-reduction measures, maintaining proactive momentum, and ensuring continued progress amid an evolving regulatory and environmental landscape.

Scope 3 Materiality Identification and Management

The company proactively conducts Scope 3 inventory disclosure. Through materiality identification procedures, we identified "employee commuting" and "business travel" as the company's main Scope 3 emission sources, focusing systematic inventory and management on these two items. Despite significant increases in employee numbers from 2023-2024, total emissions remained relatively stable, reflecting the company's implementation of the following low-carbon transportation policies:

- Shared transportation promotion: Partnering with Uber for Business, encouraging colleagues to use shared transportation instead of driving
- Public transportation advocacy: Providing transportation subsidies, promoting public transportation for commuting
- Reducing unnecessary travel: Strengthening online meeting culture, reducing unnecessary business trips

Greenhouse Gas Inventory Results GRI 305-1 GRI 305-2

Inventory Standards and Methods

Following the ISO 14064-1:2018 standard guidelines, HDRE applies the operational control approach to account for direct greenhouse gas (GHG) emission sources (Scope 1), energy-indirect GHG emission sources (Scope 2), and other indirect GHG emission sources (Scopes 3 to 6) within its operational boundaries.

The inventory covers seven GHGs: carbon dioxide (CO_2), methane (CH_2), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

Inventory Boundary Description

This year the company expanded the inventory scope to all HDRE offices nationwide. Consolidated subsidiaries include Star Trade, Star Charger, Star Energy Storage Solutions , and Star Aquaculture. The clearly defined inventory boundary includes fixed office locations in Taipei headquarters and offices, Taichung office, Tainan Xuejia and Jiali, Kaohsiung, and Penghu.

HDRE's various project sites including self-operated projects, managed O&M projects, projects under construction, and joint venture projects have complex ownership, property rights, and operational control relationships. Further clarification of legal control and operational control is needed before assessment for inclusion. To ensure inventory accuracy and regulatory compliance, project sites are temporarily excluded from this inventory boundary.

2024 Inventory Results

Within the company's 2024 inventory boundary, Scope 1 emissions were 119.3744 metric tons CO_2e, Scope 2 (market-based) were 217.3609 metric tons CO_2e, and Scope 3 were 367.1536 metric tons CO_2e, for total emissions of 775.0367 metric tons CO_2e.

Three-Year Greenhouse Gas Emission Trends[4]

Year	Emissions (tCO_2e)		Emissions (tCO_2e)				Emission intensity[5] (tCO_2e /Million NT$)	
	Scope 1	Scope 2 (location-based)	Scope 2 (market-based)[6]	Scope 1 +Scope 2[7]	Scope 3	Total	Scope 1 +Scope 2 Emission intensity	Scope 3 Emission intensity
2022	93.4242	119.2747	-	212.6989	129.8187	342.518	0.04189	0.02549
2023	119.5800	192.1409	-	311.7209	294.6332	606.354	0.05326	0.05035
2024	119.3744	288.5087[8]	217.3609	336.7353	367.1536	775.0367	0.03325	0.03624
Annual Change Rate	-0.17%	+50.15%	-	+8.02%	+24.61%	+27.81%	-24.53%	-28.01%

ISO 14064-3：2019 third-party verification

5.This inventory period is 2024/1/1-2024/12/31, inventory boundary includes fixed office locations in Taipei headquarters and offices, Taichung office, Tainan Xuejia and Jiali, Kaohsiung, and Penghu.

6.Emission intensity calculation: Emission intensity = Emissions ÷ Million NT$ revenue.

7.According to greenhouse gas inventory protocol ISO 14064 standards, starting 2024, HDRE has external renew able energy purchases, thus calculating and disclosing greenhouse gas emissions using both "location-based" and "market-based" methods. Location-based Scope 2 emissions are calculated by multiplying total electricity usage by local average electricity coefficients, while market-based emissions are calculated by multiplying solar photovoltaic and Taiwan Power contracted electricity by corresponding coefficients.

8.To faithfully reflect the emission reduction effects of purchased green electricity on company carbon emissions, starting 2024, the sum of Scope 1 and Scope 2 presents market-based data.

9.Greenhouse gas emission coefficients: Taiwan references the latest version data announced by the Environmental Protection Administration during inventory operations. For electricity emission coefficients, as the Bureau of Energy had not announced 2024 coefficients during the statistical period, 2024 uses the 2023 coefficient of 0.494 $kgCO_2e/kWh$ for calculation.

Detailed Scope 3 Greenhouse Gas Inventory GRI 305-3

Inventory Standards and Methods

The company conducts Scope 3 greenhouse gas inventory according to ISO 14064-1:2018 standards, using the "operational control approach" to inventory other indirect greenhouse gas emission sources (Categories 3-6) related to operations within operational boundaries. Covered greenhouse gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

Indirect GHG Categories (including subcategories)	Materiality Assessment	2023 Emissions (metric tons CO_2e)	2024 Emissions (metric tons CO_2e)
Category 3: Indirect GHG emissions from transportation		294.6332	367.1546
3.1 Emissions from upstream transportation and distribution	× Non-significant	-	-
3.2 Emissions from downstream transportation and distribution	× Non-significant	-	-
3.3 Emissions from employee commuting	√ Significant	123.4901	155.4860
3.4 Emissions from client and visitor transportation	× Non-significant	-	-
3.5 Emissions from business travel	√ Significant	171.1431	211.6676
Category 4: Indirect GHG emissions from products used by the organization	-	- -	- -
4.1 Emissions from purchased goods	× Non-significant	-	-
4.2 Emissions from capital goods	× Non-significant	-	-
4.3 Emissions from disposal of solid and liquid waste	× Non-significant	-	-
4.4 Emissions from use of assets	× Non-significant	-	-
4.5 Emissions from use of services not described in above subcategories	× No relevant emission sources	-	-
Category 5: Indirect GHG emissions associated with the use of products from the organization	-	-	-
5.1 Emissions or removals from product use stage	× No relevant emission sources	-	-
5.2 Emissions from downstream leased assets	× No relevant emission sources	-	-
5.3 Emissions from end of product life	× No relevant emission sources	-	-
5.4 Emissions from investments	× No relevant emission sources	-	-
Category 6: Indirect GHG emissions from other sources	× No relevant emission sources	-	-
Scope 3 Total		294.6332	367.1546

Energy Usage and Greenhouse Gas Reduction Targets and Management

The company has established comprehensive greenhouse gas (GHG) reduction management policies. In 2024, following an expanded inventory, it was found that due to the continued increase in personnel and operational scale, total GHG emissions reached 775.0367 metric tons CO_2e—exceeding the 3% threshold compared with the original base year.

Accordingly, 2024 was designated as the new base year, with Scope 1 and Scope 2 emissions amounting to 119.3744 and 217.3609 metric tons CO_2e, respectively. Based on this new baseline, the company has set and publicly disclosed quantified GHG reduction targets for future years and for 2030 as follows:

Reduction Target Setting

Base Year (2024)	Headquarters: 47.2970 tons CO_2e	Other office locations: 287.4523 tons CO_2e	Total: 334.7493 tons CO_2e

Target Period	Quantified Management Target	Target Emissions		Cumulative Reduction Ratio
Short-term Target (2025)	Headquarters achieves net zero	Headquarters: 0 tons CO_2e	Other offices: 287.4523 tons CO_2e	-14.12%
Medium-term Target (2028)	40% of locations achieve net zero or reduce base year emissions by 40%	Headquarters: 0 tons CO_2e	Other offices: 172.47138 tons CO_2e	-48.47%
Long-term Target (2030)	Achieve 100% reduction at office locations by 2030	Headquarters: 0 tons CO_2e	Other offices: 0 tons CO_2e	-100%
Ultimate Target（2050）	Achieve net zero at all locations including non-office sites[9] by 2050			

Implementation Measures and Achievement Status

As of the end of 2024, achievement status of various reduction measures is as follows:Through various carbon reduction actions, **2024 Scope 1 and 2 revenue emission intensity decreased by 24.53% compared to the same period last year.**

Implementation Measures	Specific Actions	2024 Implementation Results	Emission Reduction Benefits
Green Energy Introduction	• Self-owned project green electricity transfer • Green electricity supply for Taipei and Taichung offices • Increased renewable energy usage ratio	• Green electricity usage: 144,024 kWh • Green electricity ratio reached 24.66%	• Due to expanded operations and office expansion, total Scope 1 and 2 electricity usage increased. • However, 2024 revenue emission intensity decreased by 24.53%.
Equipment Energy Efficiency Improvement	• High energy consumption equipment replacement • LED lighting system implementation • Smart meter management	• All main operational locations are equipped with low-energy-consumption equipment. • Taichung office has achieved 100% coverage of real-time electricity monitoring, while other locations are continuously improving toward comprehensive smart-energy management. • Smart meters have been installed across major offices to establish baseline energy-use data. The company plans to implement the ISO 50001 Energy Management System (EnMS) and an Energy Management System (EMS) platform in 2025 to further enhance energy-efficiency management and promote systematic energy-saving practices.	
Low-Carbon Transportation Promotion	• Uber Green partnership program • Public transportation encouragement • Electric vehicle introduction	• 155+ employees participated • Reduced fuel mileage by 1,807 km • 142 low-emission trips • Estimated reduction of 126.2 (g/km) • Company vehicle electrification 16.12%	• Although HDRE's employee count doubled in 2024, causing Scope 3 emissions to increase by 24.61%. • However, considering per capita emission intensity, it decreased from 1.3153 in 2023 to 0.9536 kg/person in 2024.

10. Considering that non-office locations such as project sites and aquaculture farms currently have high inventory difficulty, they have not been inventoried yet. Related locations will be gradually included in the inventory scope in the future.

Energy Conservation and Carbon Reduction Implementation Results GRI 302-4

HDRE completed its office greenhouse gas (GHG) inventory in 2022 and continued the assessment in 2024 to further understand its emission profile. Through data management, the company gains clearer insight into internal carbon emission sources and trends.

To implement its environmental and energy policies, HDRE focuses on three core initiatives: (1) replacement of outdated, high-energy-consuming equipment, (2) promotion of environmentally friendly habits, and (3) waste reduction, energy conservation, and recycling. Each department is assigned specific energy-saving and carbon-reduction targets. Concrete actions include adopting low-carbon and environmentally friendly office equipment, encouraging employees to use reusable tableware to reduce disposable waste, and strengthening waste recycling programs.

Since operations began, HDRE has continuously identified opportunities for emission reduction, environmental greening, and mitigation of negative impacts at every stage of its operations. The company continues to invest in environmental protection initiatives and prioritizes products that minimize environmental harm.

HDRE also plans to integrate environmental education into its mandatory training curriculum, establishing a minimum number of annual environmental training hours for employees and encouraging the practical application of sustainability concepts.

In 2024, HDRE recorded no major legal violations or penalties imposed by any governmental authority.

HDRE Conservation and Carbon Reduction Measures

Energy Management and Conservation Implementation Table GRI 302-4

Implementation Plan	Specific Measures	2024 Implementation Results
Equipment Efficiency Improvement	• Replace high energy consumption air conditioners • Fully implement LED lighting systems • Smart meter real-time monitoring systems	Taichung office electricity monitoring coverage 100%
Green Energy Introduction	• Taipei office 76.88% green electricity supply • Taichung office 59% green electricity supply • Self-owned project green electricity transfer mechanism	• Green electricity usage 144,024 kWh • Green electricity ratio increased to 24.66% • Grid dependence reduced to 27.44%
Smart Management	• Energy Management System (EMS) implementation • Electricity data analysis and alerts • Automated energy-saving control systems	• EMS system covers main locations • Real-time monitoring of electricity efficiency • Automated adjustment of equipment operation
Green Transportation Promotion	• Uber Green carbon reduction partnership • Encourage employees to use public transportation for commuting • Gradual electrification of company vehicles • Encourage video conferencing to reduce business travel	• 155+ employees participated • Traveled 1,807 km • 142 low-emission trips • Estimated reduction 126.2 (g/km) • Company vehicle electrification including self-owned and leased totals 31 vehicles, approximately 16.12%
Behavioral Energy Conservation Promotion	• 19:00 lights-off policy • Standardized air conditioning temperature management • Employee energy conservation awareness training	• Lights-off policy implementation status confirmed • Air conditioning electricity management effectiveness • Employee training completion status

Innovative Carbon Reduction Project: Uber Green Employee Green Commuting Carbon Reduction Project

Corporate Green Transportation Partnership Program

HDRE partnered with Uber in 2024 to introduce "Uber Green" as a green transportation option for employee commuting and business trips, implementing corporate ESG strategy and integrating sustainable actions into employees' daily lives. This partnership provides electric vehicle ride discounts, allowing employees to reduce their transportation carbon footprint while maintaining work efficiency, achieving a green mobility solution that balances convenience and environmental protection.

Project Carbon Reduction Results

By the end of 2024, over 155 employees had registered and begun using green travel services, accounting for approximately one-third of all employees. Through systematic business model conversion mechanisms, employees can easily switch to green fleet options, significantly improving collective carbon reduction efficiency. Preliminary estimates show this project has accumulated 1,807 miles, equivalent to approximately 228 kg of carbon emission reduction, successfully transforming corporate carbon reduction commitments into quantifiable environmental contributions.

4.2.3 Water Management GRI 303-1 GRI 303-2 GRI 303-3 GRI 303-4 GRI 303-5

Industry Water Usage Overview

Solar power generation requires significantly less water than traditional power generation technologies, primarily concentrated in module cleaning and maintenance stages. However, with the development of agrivoltaic models, balancing aquaculture water use with photovoltaic maintenance water use has become increasingly important. Against the backdrop of water resource instability caused by climate change, water resource management has become a key issue for sustainable industrial development.

HDRE Water Sources

HDRE's water usage can be divided into internal office operations and external project site water use. Internal use is primarily general domestic water, while external use includes photovoltaic project cleaning water and agrivoltaic aquaculture water. Aquaculture water mainly comes from direct withdrawal from nearby drainage channels and rainwater accumulated in private reservoirs, following a recycling and reuse process that achieves zero wastewater discharge. Total water withdrawal in 2024 was approximately 161,000 cubic meters (scope includes all office locations, photovoltaic project water use, and aquaculture water).

Water Resource Management Policy and Utilization Effectiveness

HDRE strengthened its water resource management framework in 2024, particularly achieving 90% water resource recycling rate at agrivoltaic project sites and completing aquaculture digital command center construction, integrates AI-assisted water quality management. A real-time water monitoring system was deployed, and Flamingo and Muse AI models were tested, gradually introducing intelligent water resource and water quality management mechanisms. Since the agrivoltaic project site began operations in February 2023, we have established a complete water circulation system, effectively addressing the enormous aquaculture water demand while achieving zero wastewater discharge.

2024 Water Resource Utilization Benefits

Item	Value	Description
Water Resource Recycling Rate	90%	Agrivoltaic project site water circulation system efficiency
Annual Total Water Resource Recycling	161,000 cubic meters	Includes all office locations, photovoltaic projects, and aquaculture water
Zero Wastewater Discharge Achievement Rate	100%	All agrivoltaic project sites achieve zero wastewater discharge

Water Usage Status and Circulation System

HDRE's total water withdrawal from all office locations in 2024 was 4,460 cubic meters. Including photovoltaic projects and aquaculture water, total withdrawal was approximately 161,000. Agrivoltaic aquaculture water mainly comes from direct withdrawal from nearby drainage channels and rainwater from private reservoirs. Project sites have established complete water circulation systems where aquaculture wastewater entirely is directed to private reservoirs for quality conditioning, then recycled and reused, achieving zero wastewater discharge.

Water Resource Utilization Policy

HDRE adheres to the principle of managing water resources as "inventory," establishing comprehensive water resource management strategies:

Plan	Office Strategy	Photovoltaic Project Strategy	Agrivoltaic Project Strategy	Implementation Status
Water Conservation Design	• Adopt water-saving bathroom fixtures • Regular maintenance to prevent leaks	• Optimize cleaning technology to reduce water use • Schedule cleaning according to weather conditions	• Aquaculture water circulation system • Intelligent water quality monitoring management	• Basic water-saving equipment implemented in office areas and project sites, continuous optimization ongoing • PV panel cleaning scheduled according to weather conditions
Recycling and Reuse	• Office air conditioning condensate collection • Rainwater collection utilization assessment	• Future implementation of module cleaning water recovery system • Low water consumption maintenance technology	• 90% water resource recycling rate • Reservoir water quality cultivation and reuse	• Agrivoltaic projects have achieved high recycling rates, other areas under planning
Technology Innovation	• Water usage behavior data analysis • Smart water usage monitoring	• Automated cleaning equipment assessment • Smart adjustment of cleaning frequency	• Aquaculture digital command center • AI water quality management system	• Aquaculture digital command center established in 2023, applying AIOT technology for water monitoring
Automation Application	• Evaluate smart water meter implementation • Office water resource management	• Automated cleaning equipment planning • Water-saving cleaning technology	• Automated monitoring of water circulation system • Automatic water quality adjustment system	• Evaluating automated equipment implementation timeline, expected to begin in 2025

Water Resource Withdrawal and Discharge Management

GRI 3-3 GRI 303-4 GRI 303-5

In 2024, HDRE' s total water withdrawal amounted to 2,694 cubic meters, primarily sourced from municipal water systems. At the company' s agrivoltaic project sites, a zero-wastewater-discharge circulation strategy is implemented—all aquaculture water is treated and reused through a closed-loop system, with no discharge into external water bodies. Office domestic wastewater is collected through building-integrated collection systems and treated by municipal wastewater treatment plants.

After assessment, none of HDRE's operational sites are located in water-stressed areas, therefore there is no need to specifically disclose water usage in water-stressed areas. The company will continue monitoring global water stress changes, and if future project sites are located in water-stressed areas, special management procedures will be immediately initiated.

Future Water Resource Management Plans

Looking ahead to 2025, HDRE plans to advance intelligent water resource management by introducing smart water meters, optimizing existing management systems, and integrating AIoT terminals with aquaculture command centers. The company also plans to evaluate automated cleaning equipment and rainwater harvesting systems.

Over the long term (post-2026), HDRE aims to further optimize water circulation systems, standardize management processes, and develop multimodal large language model (LLM) applications to support decision-making in water management—continuously enhancing overall water resource utilization efficiency.

Item	Plant	2023	2024	Change
Total Water Withdrawal (tons)				
Municipal Water	All operational units	2,694	5,468	+51%
Surface Water	All operational units	-	15,026	-
Groundwater	All operational units	0	0	-
Seawater	All operational units	0	0	-
Produced Water	All operational units	0	0	-
Third-party Water	Star Aquaculture - Agrivoltaic Project (Water Testing Institute/ Daily Operations)	156,400	156,400	0%
Total Water Withdrawal		159,094	176,894	+10%
Total Water Consumption (tons)				
Total Water Consumption[11]		159,094	176,894	+10%

11.According to GRI 303-5 definition, Total Water Consumption = Total Water Withdrawal - Total Water Discharge

4.2.3 Waste Management GRI 306-1 GRI 306-2 GRI 306-3 GRI 306-4 GRI 306-5

HDRE complies with the Environmental Protection Administration's "Waste Disposal Act", the Financial Supervisory Commission's "Rules Governing the Preparation and Filing of Sustainability Reports by TWSE/TPEx Listed Companies," and other relevant environmental regulations. Based on these frameworks, the company has established a waste management policy guided by three core strategies: waste reduction, proper disposal, and recycling.

2024 Waste Management Highlights

Waste Hauler Compliance	Environmental Law Violations
100%	0 incidents

Waste-related Significant Impact Inputs, Activities, Outputs and Components GRI 306-1

Value Chain Stage		Impact Relationship	Activity Type	Input Materials	Waste Components	Output and Treatment
Upstream Activities		From supplier packaging and transportation processes	• Material procurement • Equipment transportation • Packaging protection	• Solar modules • Steel, cables • Engineering materials • Packaging protection materials • Consumables	• Packaging waste: Transportation protection materials • Consumable waste: Construction consumable materials	• Packaging, consumables, and engineering waste removal included in contractor agreements
Organization Operations	Project Construction	Directly from project construction process	• Project development and construction • Equipment installation • Foundation engineering	• Steel, concrete • Cables • Installation tools and equipment	• Metal waste: Steel, cable engineering surplus • Concrete waste: Foundation engineering surplus • Packaging materials: Equipment packaging waste	
	O&M Management	Directly from equipment O&M management	• Equipment maintenance • Equipment replacement • Daily inspections	• Maintenance tools • Replacement parts • Testing equipment	• Maintenance parts: Equipment maintenance replacement parts • Solar modules: End-of-life equipment • Recycling and reuse treatment	• Recycling and reuse • Entrust professional treatment organizations for recycling
	Office Operations	Directly from office operations	• Daily office operations • Employee daily activities • Equipment use and updates	• Office supplies and stationery • Electronic office equipment • Daily necessities	• General waste: Generated from daily office operations • Domestic waste: Generated from employee daily activities • Electronic equipment: Generated from office equipment replacement	• Waste sorting and recycling according to regulations • Entrust qualified haulers for disposal
Downstream Activities		Equipment end-of-life stage	• Equipment replacement • Demolition operations • Final disposal	• Replaced equipment • Demolition tools • Cleaning materials	• Solar modules: End-of-life • Metal components: Demolished metal materials • Concrete components: Demolished concrete materials	• Entrust professional treatment organizations for recycling • Metal recycling and reuse • Final disposal

Waste Generation and Impact Analysis GRI 306-1 GRI 306-3

Waste-related Significant Impacts

Positive Impacts	Negative Impacts
• Reduce raw material demand and upstream extraction load through engineering material recycling • Extend equipment lifespan through cross-project reuse • Paperless operations significantly reduce forest resource consumption and improve operational efficiency • Professional solar module recycling can recover precious metals and rare elements • Waste resource innovation such as converting agricultural waste to biochar creates commercial value	• Improper disposal of project engineering waste may cause soil and groundwater pollution • End-of-life solar modules containing metals and semiconductor materials will create long-term environmental burden • Lack of office waste recycling mechanisms will increase landfill load • Excessive packaging material use increases waste volume and carbon emissions during processing

Waste Management Strategies and Actions GRI 306-2 GRI 306-4 GRI 306-5

HDRE has established a foundational waste management framework, primarily focusing on waste generation control and classification. At present, both project site waste and office-generated waste are entrusted to qualified and licensed waste contractors for collection and disposal, ensuring full compliance with relevant environmental regulations.

However, a comprehensive system for detailed waste data collection, disposal tracking, and end-of-life treatment supervision has not yet been fully implemented.

Material Impacts of Waste

Waste Management Overall Process

Stage 1 Source Reduction		Stage 2 Classification and Collection	Stage 3 Proper Disposal		Stage 4 Backend Supervision (Future implementation items)
Project Site Waste: Waste materials, support frame materials and equipment, packaging, installation and equipment, electrical wires, safety barrier facilities	Office Waste: Office supplies and stationery, electronic equipment, packaging materials, domestic waste, general office waste	Waste Classification and Collection: Hazardous waste (0 metric tons), Non-hazardous waste, Recyclable materials, General waste	Project Site Waste Disposal: Recycling and reuse, Hauler assistance, Government compliance	Third-party Disposal: All entrusted to haulers, Transport to incinerators, Government compliance	Waste Statistical Inventory: Establish project site waste statistics, Track and file disposal records, Monthly output statistics, Recycling rate calculation

Waste Management Strategies and Actions GRI 306-2

Third-party Waste Management Assurance Mechanisms
All waste haulers contracted by the company must meet the following conditions:

Qualification Review	Contract Signing	Regular Evaluation	Disposal Confirmation
Obtain government-issued waste disposal permits	Sign waste disposal contracts specifying disposal methods and responsibilities	Conduct annual supplier evaluations to ensure continued compliance	Require provision of waste disposal manifests to track disposal routes

Comprehensive Waste Management Action Plan

HDRE has established a systematic waste prevention and management framework built upon three core strategies: waste reduction, proper disposal, and recycling.

This strategic framework encompasses the entire waste lifecycle—from source prevention to final disposal—aiming to maximize resource utilization efficiency, minimize environmental impact, and achieve a sustainable and circular waste management system.

Strategic Category	Specific Measures
Reduce Waste	• Procurement optimization: Purchase reusable materials (steel forms, eco-friendly LED tubes) • Supply chain management: Require suppliers to reduce packaging materials, optimize logistics direct to project sites • Digital transformation: Implement "paperless" work policy, use electronic approval systems • Lifestyle waste reduction: Promote reusable tableware use, ban disposable tableware and containers
Proper Disposal	• Classification management: Identify project site waste types, entrust to qualified waste haulers for disposal • Professional disposal: 100% compliance review and contract signing with waste haulers • Route tracking: Require provision of waste disposal manifests to ensure compliant disposal routes • Regular evaluation: Establish regular evaluation procedures for suppliers and contractors
Recycling and Reuse	• Equipment circulation: Container offices, toilets, safety barriers reused across project sites • Material recycling: Unified warehouse management and reuse of wire spools and steel forms • Engineering circulation: Use reusable steel forms in engineering, track and reallocate surplus material inventory • Innovative resource recovery: Launch agricultural waste biochar pilot program

Future Waste Management Plans

HDRE plans to continuously enhance the effectiveness of its waste management system, focusing on key initiatives such as establishing solar panel waste disposal processes, promoting biochar commercialization, improving the reuse rate of engineering materials, and building zero-waste office environments.

Aligned with the 2025 – 2030 office net-zero emission roadmap, the company will systematically review and reduce waste generation, increase resource recycling efficiency, and continuously minimize its environmental footprint.

4.3 Biodiversity

Material Topic: Biodiversity

Sustainable Vision of Living with the Land

Thriving alongside local communities and coexisting harmoniously with nature are HDRE's core development goals. Throughout our project development across Taiwan, we enhance land value without compromising ecological integrity, creating diverse livelihood opportunities. Since 2022, HDRE has initiated the Tainan Qigu project, progressing from early-stage environmental assessments and community engagement to the establishment of diversified ecological coexistence models, demonstrating our commitment to sustainable value beyond commercial operations, embodying our vision of shared prosperity among business, society, and the environment.

Biodiversity Protection Commitment

As global climate change intensifies and natural resources face unprecedented challenges, HDRE recognizes the critical role of natural capital in our operations and long-term sustainability. In alignment with the United Nations Sustainable Development Goals (SDGs), we:

- Adhere to TNFD framework guidelines with "Natural Sustainable Management Policy" as our principle
- Formulate specific action plans to implement the goal of "reducing environmental impact and enhancing natural capital value"
- Establish transparent nature-related financial disclosure mechanisms to promote low-carbon, low-resource, high-efficiency sustainable development

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In early 2024, Chairman Edward Hsieh formally endorsed the "HDRE's Biodiversity Policy" commitment to avoiding development in biodiversity-rich areas and upholding the core values of sustainable management and ecological prosperity. We set the long-term goal of achieving a net positive impact on biodiversity by 2050, taking concrete actions to combat the global extinction crisis and protect the sustainable development of all life and ecosystems on Earth.

4.3.1 Nature-related Assessment Method: LEAP Process

HDRE adopts the nature-related risk and opportunity assessment framework (LEAP) to systematically evaluate the interactions between our business operations and the natural environment. The four stages — Locate, Evaluate, Assess, and Prepare — are summarized as follows

Locate Identifying key operational locations	HDRE identifies key business activity areas and maps the distribution of operations and assets across the upstream, midstream, and downstream segments of our value chain. We analyze the cost and revenue structure of each activity or region and examine the interdependencies between our business scope and the natural environment. Priority is given to assessing the ecological sensitivity and conservation value of our operational locations, particularly our headquarters and energy project sites.
Evaluate Assess the dependencies and impacts of business activities along the key energy value chain	HDRE comprehensively examines the energy operation value chain's dependences on and impacts on the natural environment, understanding operational vulnerability to environmental changes and strengthening protection mechanisms for ecosystem services. Key assessment items include: • Clearly define business activity locations and related environmental assets, ecosystem services • Quantitatively assess business activities' impact on natural environment and regional communities • Analyze impact drivers in depth to precisely identify priority management items
Assess Analyze nature-related risks and opportunities	HDRE comprehensively dependencies on and impacts to nature, identifying associated risks and opportunities. Key nature-related risks include climate change, resource scarcity, and ecosystem degradation; while opportunities involve the expansion of renewable-energy applications, growing market demand for green technologies, and increased value of ecological certifications. We have incorporated climate conditions into project design considerations and implemented risk mitigation measures such as water resource management and eco-friendly production.
Prepare Formulating Strategies and Disclosing Assessment Findings	Building on the analysis of nature-related risks and opportunities, HDRE continuously refines its existing management measures and strategic direction. The company's TNFD-aligned report discloses the impacts of nature-related risks on operations, the effects of ecosystem changes on resource supply, and the effectiveness of implemented ecological protection measures. Through advancements in energy-saving technologies, water-resource management, and eco-friendly operations, HDRE has significantly reduced environmental risks. Looking ahead, we will further expand our investments in renewable energy and smart energy IoT systems, continuously adjusting our risk management strategies in response to evolving environmental and market dynamics.

Renewable Energy Industry Natural Environment Interaction Assessment

HDRE applies the ENCORE tool (Exploring Natural Capital Opportunities, Risks, and Exposure) to conduct a comprehensive assessment of its dependencies on and impacts to the natural environment, accurately assessing environmental change risks faced by the enterprise. This platform helps enterprises explore natural capital risks by selecting specific economic sectors or production processes, thereby more clearly understanding natural capital challenges in operations and taking corresponding measures. For HDRE's core businesses—renewable energy project development and green electricity services—assessments are primarily conducted from two dimensions: impacts on ecosystem services and dependencies on ecosystem services."

Dependence on Ecosystem Services Assessment (dependence driver)

ENCORE analysis shows that renewable energy industry operations depend on the following key ecosystem services:

Theme	Groundwater	Surface Water
Description	Water resources stored in permeable rocks, soil, and sand layer aquifers, primarily replenished through rainwater, snowmelt, and natural water flow	Freshwater supply from watershed precipitation and natural water sources

Impact on Ecosystem Services Assessment (impact)

According to the Natural Capital Protocol (2016), "impact" refers to any change in the quantity or quality of natural capital resulting from specific human or business activities.

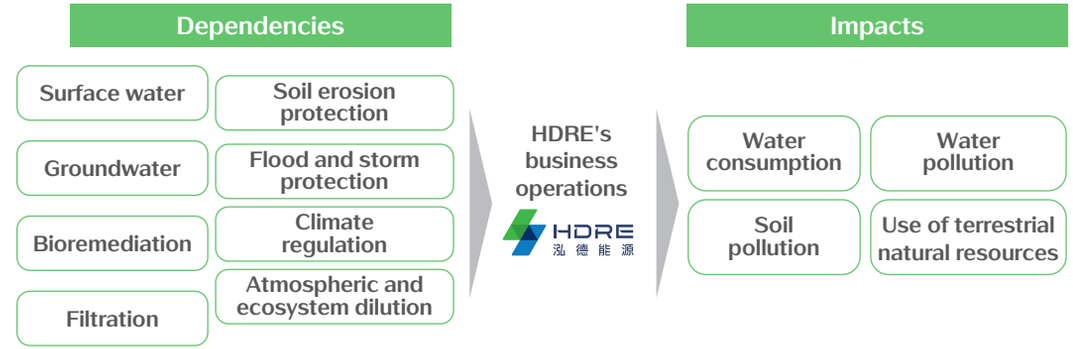
Within the renewable energy industry, HDRE identifies the following major environmental impacts:

Renewable Energy Industry Environmental Impacts

Terrestrial Natural Resource Use	Solar Power Plant installations require large land areas, potentially leading to natural habitat reduction or ecosystem changes, affecting regional biodiversity
Water Usage	Although Solar Plant operation water consumption is relatively low, production, maintenance, and panel cleaning processes may consume considerable water resources, requiring careful management especially in water-scarce
Soil Pollutants	Solar Power Plant construction requires vegetation clearing, potentially damaging soil structure and increasing soil erosion risk, thereby affecting surrounding land productivity and ecosystem services
Water Pollution	Pollutants during construction may seep into groundwater, causing long-term impacts on regional water quality

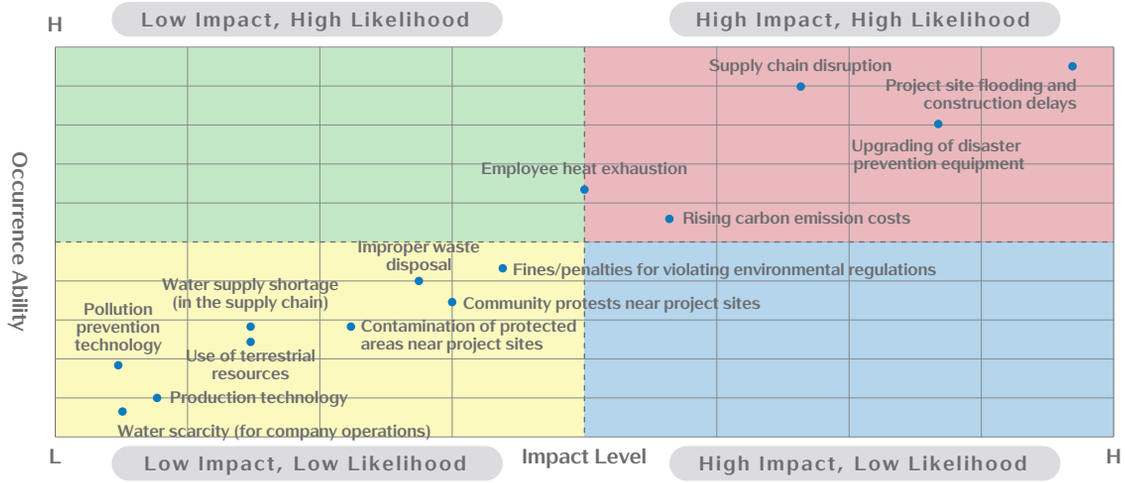
HDRE continuously monitors and mitigates the environmental impacts of its business activities through comprehensive risk assessment and management systems, while actively exploring innovative approaches to enhance ecosystem service value, ensuring sustainable balance between enterprise development and natural environment.

HDRE Industry Dependency and Impact Identification Diagram



Nature and Biodiversity Risk Matrix Analysis Results

After completing the ENCORE analysis, HDRE distributed nature-related risk and opportunity assessment questionnaires to internal managers and employees. The purpose was to further identify and prioritize key nature-related risks and opportunities for future thematic management and strategic planning.

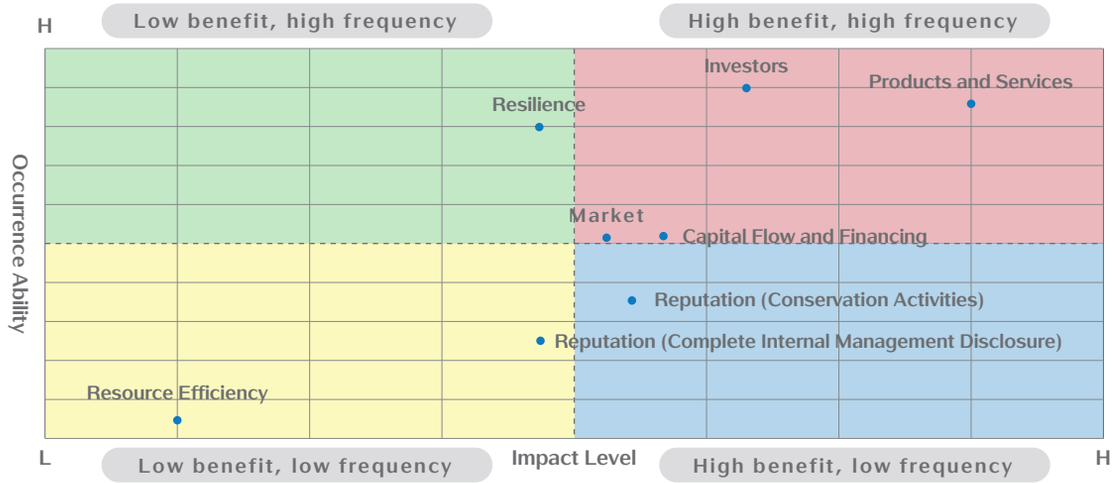


HDRE Nature and Biodiversity Risk Response Approaches
"High impact, high frequency" nature and biodiversity risks: "Risk Avoidance"
"High impact, low frequency" nature and biodiversity risks: "Risk Mitigation or Transfer"
"Low impact, high frequency" nature and biodiversity risks: "Risk Control and Preventive Measures"
"Low impact, low frequency" nature and biodiversity risks: "Risk Acceptance"

Ranking	Code	Risk Event	Risk Category	Risk Event Description	Major Nature Risk
1	A-6	Project site flooding causing delays	Tropical cyclones	Abnormal events caused by extreme weather such as typhoons and heavy rainfall, including project site flooding, transportation delays or personnel injuries, leading to project delays or increased operational costs.	v
2	A-5	Disaster prevention equipment upgrades	Tropical cyclones	To prevent climate-related disasters, need to enhance equipment wind resistance, heat resistance, and flood prevention capabilities, resulting in additional costs.	v
3	A-4	Supply chain disruption	Climate disasters	Raw material suppliers affected by climate disasters such as floods or droughts, affecting normal supply and causing supply chain disruptions.	v
4	B-2	Employee heat exhaustion	Extreme heat	Extreme heat may increase frequency and possibility of employee heat exhaustion, affecting employee health and increasing operational disruption risk.	v
5	B-1	Rising carbon emission costs	Long-term climate impacts	Dramatic weather variations make existing risk assessment systems unable to accurately predict, increasing cost uncertainty, and increased usage may lead to higher carbon emissions, increasing future carbon credit purchases and operational costs.	v
6	C-2	Ecological law violation penalties	Policy and regulations	As international or domestic biodiversity or conservation regulations become increasingly stringent, companies may face penalties for non-compliance or lawsuits for insufficient biodiversity risk disclosure, increasing operational costs.	

Ranking	Code	Risk Event	Risk Category	Risk Event Description	Major Nature Risk
7	C-1	Improper waste disposal	Policy and regulations	As waste disposal and resource pollution regulations become stricter, companies may face government penalties or suspension for non-compliance, impacting corporate finances or operations.	
8	E-2	Community protests near project sites	Community	Corporate operations affecting ecosystem stability, impacting neighboring communities and other stakeholders, creating negative perceptions or protests, affecting daily operations.	
9	E-1	Pollution of protected areas near project sites	Protected areas	Corporate activities affecting nearby protected areas and habitat organisms, impacting corporate image and reducing operational income (Penghu/Tainan Qigu project sites near protected areas).	
10	A-2	Water resource shortage (supply chain)	Water shortage	Water supply shortages preventing upstream supply chain from having adequate water resources, affecting raw material provision and impacting operations or increasing costs.	
11	B-5	Infectious diseases	Infectious diseases	Natural environment and ecosystem destruction, biodiversity loss leading to pest control imbalance, infectious disease outbreaks affecting employee health or government large-scale quarantines, causing operational disruption.	
12	A-3	Terrestrial resource utilization	Terrestrial resource use	Project construction severely impacting ecosystems, e.g., solar facilities potentially disrupting wildlife migration paths and breeding grounds, leading to increased environmental restoration and compensation costs.	
13	D-2	Pollution control technology	Technology	To reduce resource pollution from manufacturing (including water, soil, air, noise pollution), increasing corresponding R&D costs or equipment procurement investments.	
14	D-1	Production technology	Technology	Failure to improve production technology or reduce harmful substances to minimize product environmental harm, leading to reduced orders or increased penalties.	
15	A-1	Water resource shortage (enterprise)	Water shortage	Water supply shortages causing insufficient water for enterprise needs, impacting office or project operations or increasing costs.	
16	B-3	Water pollution	Water pollution	Long-term water pollution making current enterprise locations unsuitable, requiring relocation and increasing operational costs.	
17	B-4	Soil pollution	Soil pollution	Long-term soil pollution making current enterprise locations unsuitable, requiring relocation and increasing operational costs.	

Nature and Biodiversity Opportunity Matrix Analysis Results



HDRE Nature and Biodiversity Opportunity Response Approaches
"High benefit, high frequency" nature and biodiversity opportunities: "Active Action"
"High benefit, low frequency" nature and biodiversity opportunities: "Key Project Action"
"Low benefit, high frequency" nature and biodiversity opportunities: "Evaluate then Develop"
"Low benefit, low frequency" nature and biodiversity opportunities: "Long-term Planning"

Ranking	Code	Opportunity Category	Opportunity Event Description	Major Nature Opportunity
1	B-1	Products and Services	In response to trends, increase green electricity consulting, planning, and sales, helping customers obtain optimal electricity scheduling and stable green electricity, increasing operational income.	v
2	C-2	Investors	Rising green energy awareness and demand increase investor interest in green energy industries, making company funding sources more abundant.	v
3	F-1	Resilience	Establish crisis management procedures, build disaster prevention response systems, including employee disaster drills and natural disaster prevention measures, to reduce losses when disasters occur.	v
4	C-1	Capital Flow and Financing	Complete corporate natural resource and biodiversity management, improve international ESG scores (e.g., CDP, DJSI), thereby obtaining financial institution investment opportunities or enjoying lower capital costs.	v
5	E-1	Market	Market preference for environmentally friendly products, increased demand for related green products, and company ability to provide products meeting market demands.	v
6	D-1	Reputation (Conservation Activities)	Company investment in biodiversity-related habitat and protected area conservation activities, enhancing corporate image and increasing orders.	v
7	D-2	Reputation (Complete Internal Management Disclosure)	Company complete disclosure of biodiversity-related management mechanisms, enhancing corporate image and increasing orders.	v
8	A-1	Resource Efficiency	Establish circular economy and recycling systems, increase renewable resource utilization, reduce water and carbon emission-related resource consumption, reduce related resource costs, saving operational costs.	v

4.3.2 Biodiversity Management and Action Plans

Amid global climate change and rapid environmental shifts, HDRE recognizes the critical importance of sustainable development. As nations face increasingly severe environmental challenges, including biodiversity loss, we are taking proactive measures to address these issues.

Since 2024, HDRE has formally integrated the Task Force on Nature-related Financial Disclosures (TNFD) framework into corporate operations and disclosure processes. By identifying, assessing, and disclosing nature-related risks and opportunities, we strengthen our management of biodiversity, natural resources, and ecosystem services—enhancing long-term competitiveness and sustainable development resilience.

TNFD Four Pillars	Key Implementation Items	Responsible Units
Governance	• The Sustainability Development Department coordinates and compiles nature-related and biodiversity management issues identified by various departments, with relevant HD internal units managing these risks and issues, then tracking implementation of nature environment protection measures through regular Sustainability Development Department meetings. • The Board of Directors serves as supervisor for nature environment and biodiversity management, overseeing HDRE's responses and solutions to these issues, aiming to build corporate resilience under nature environment threats.	• Board of Directors • Sustainability Development Department
Strategy	• Through TNFD framework, regularly identify short, medium, and long-term nature environment and biodiversity risks and opportunities, assess impacts on organizational operations, strategy, and financial planning, analyze future market development potential, ensure HDRE is fully prepared for nature environment issues, and conduct matrix analysis of operational impacts based on different frequencies and impact levels according to TNFD recommendations and internal assessment methodology. • Actively manage and develop strategies for major risks and opportunities, helping HDRE enhance operational resilience facing nature and biodiversity.	• Sustainability Development Department • Various Units
Risk Management	• For identified risks, relevant departments explore nature environment risks' impact on company operations, discuss response measures for each risk, ensuring these measures are closely linked to annual management policies. Simultaneously assess these risks' potential impacts on biodiversity and natural ecosystems, developing comprehensive management plans. • Assess nature environment-related risk severity using impact level and occurrence rate, referencing scenario analysis results to set relevant response plans. These plans should consider different climate and environmental scenarios, ensuring HDRE can take effective action when facing various risks, reducing negative operational and financial impacts while protecting biodiversity and natural resources.	• Sustainability Development Department • Various Units
Metrics and Targets	• In recent years, actively establish assessment management indicators for water usage, energy consumption, greenhouse gas emissions, and waste output, while actively developing smart energy IoT platforms through AI technology, advancing toward becoming a "smart power company." • HDRE responds to Taiwan government's "2050 Net Zero Emissions" policy, internally establishing "Sustainable Development Policy," committing to set short, medium, and long-term carbon reduction targets following Taiwan's "2050 Net Zero Emissions Pathway" framework, aiming for 2050 net zero emissions, striving to move toward low-carbon operations and create an ecologically friendly, socially inclusive, and economically growing sustainable future.	• Sustainability Development Department • Various Units

Natural Capital Management Process

HDRE has established a systematic process for natural capital management comprising four key steps:

Natural Capital Management Procedures			
Risk and Opportunity Identification	Impact Assessment	Action Plan Development	Metrics and Target Planning
Reference TNFD guidelines, international standards, and benchmark enterprises to identify nature environment and biodiversity-related risks and opportunities.	Through external consultant research and internal cross-departmental meetings, assess risk and opportunity impact levels and conduct matrix analysis.	Develop specific action plans, build corporate resilience, and anticipate future opportunities.	Combine carbon reduction and environmental management targets, continuously promote projects with regular tracking and review by committee groups.

4.3.3 Project Site Ecological Survey and Protection GRI 304-1 GRI 304-2 GRI 304-3 GRI 413-1

HDRE conducts project development based on the principle of "thriving alongside local communities and coexisting with nature" Across Taiwan, our projects aim to add value to land without compromising ecological integrity, while creating diverse opportunities for local residents. HDRE is committed to realizing our vision of environmental sustainability by adhering to ecological conservation principles and minimizing the ecological footprint of future developments.

Material Topic: Biodiversity

Impact on Economy, Environment, and People	Commitments and Results	Targets
Positive Impact (Opportunities)	Company's Policy and Commitments on Biodiversity	Short-term Targets (1-2 years)
• **Green industry innovation:** Adopt eco-friendly technologies to reduce environmental costs and enhance market competitiveness. • **Local employment creation:** The application of AI monitoring technology cultivates green technology talent while prioritizing the recruitment of local residents, promoting inclusive regional development. • **Climate regulation:** Healthy ecosystems support natural carbon and water cycles, contributing to air and water purification while mitigating the impacts of extreme weather events. • **Carbon sink value:** Forests and wetlands enhance carbon neutrality target achievement, strengthening ESG performance. • **Water resource protection:** Agrivoltaic project sites integrate rainwater harvesting and groundwater monitoring systems, improving water-use efficiency and reducing regional water stress. • **Health improvement:** Biodiversity conservation enhances environmental quality and reduces pollution-related health risks for surrounding communities.	• **Education promotion and practice:** Promote foundational education on energy and environmental sustainability to enhance community understanding and participation in green energy and climate change initiatives. Encourage employee involvement in local volunteer and educational programs to cultivate a culture of active engagement and environmental responsibility. • **Social participation promotion:** Collaborate with local organizations to ensure residents' participation in energy transition and ecological protection decision-making processes. Promote social equity and community empowerment while enhancing public environmental awareness through advocacy for ecological conservation and sustainable energy practices.	• **Ecological survey:** Conducted biodiversity surveys around major project sites and established ecological sensitivity maps to identify and protect high-value habitats. • **Diversity promotion:** Cooperate with agricultural experts to enrich surrounding insect and plant diversity ecology. • **Standard achievement:** 100% soil quality testing meets standards. • **Compliance assurance:** 100% project development passes environmental assessment.

Material Topic: Biodiversity

Impact on Economy, Environment, and People	Commitments and Results	Targets
Negative Impact (Risks)	2024 Results	Medium/Long-term Targets (3-5 years)
• **Ecological habitat disturbance:** Without proper assessment and planning before project development, may affect local wetland ecosystems, disturbing habitats for birds, fish, and other flora and fauna. • **Facility environmental impacts:** Construction footprint, equipment noise, and nighttime lighting may place stress on surrounding natural environments. • **Water and soil pollution risks:** Improper handling of solar panel cleaning wastewater or construction drainage may contaminate local soil and surface water. • **Water resource system impacts:** Project site terrain changes and improper drainage design may cause agricultural irrigation system confusion or uneven groundwater replenishment.	• **Education promotion:** Invested approximately NT$1.4 million, partnering with Formorsa 3D to conduct 58 sessions, reaching 5,913 participants. • **Energy education:** Company employees volunteered as instructors in 10 elementary school sessions, engaging approximately 300 students. • **Community care:** Partnered with the Digital Humanitarian Association to deliver 188 classes focused on rural elderly health, with 34,065 cumulative participants. • **Hualien biodiversity project:** Launched end of 2024, annual investment of approximately NT$1 million, promoting mixed grain seed conservation contracting, friendly farming, smart monitoring, 250 biodiversity gift boxes for community promotion.	• **Sustainable culture depth:** Introduce biodiversity internal training courses, enhance employee natural capital risk management skills. • **Expand community participation:** Promote employee participation in field cleaning, species surveys, contracting experiences and other ecological actions.

Environmental and Social Review Mechanism and Ecological Protection Implementation

HDRE proactively implements the "Solar Photovoltaic Agrivoltaic Environmental and Social Review Mechanism", ensuring coexistence and mutual prosperity among fisheries, photovoltaics, society, and ecology, while minimizing land-use conflict.

The environmental and social review mechanism consists of four main steps:

Issue Identification	Use simulation software to assess different natural environment conditions, commission external consultants or professional environmental groups to collect potential environmental and social impact issues.
Water and Soil Assessment	Schedule quarterly water quality and soil testing before, during, and after development to ensure environmental quality.
Ecological Survey	Commission professional ecological consultants for long-term monitoring; publicly disclose results to promote transparency and research collaboration.
Engineering Design	Integrate aquaculture operations with habitat preservation to reduce ecological disturbance while sustaining local economic activity.

4.3.4 Project Site Ecological Conservation Cases

Project Site	Qigu Project Site		Gukeng Project Site	
Location	Qigu District, Tainan City		Gukeng, Yunlin	
Area	56.71 hectares		25.35 hectares	
Period	2018-present		2020-present (under development)	
Participating Units	Taiwan Environmental Planning Association, Mountain River Environmental Enterprise Co., Ltd.		Taiwan Sugar Corporation, CECI Engineering Consultants, Citizen Help Association	
Project Features	HDRE's Tainan Qigu Daily Operations project site is Taiwan's first self-conducted environmental and social review agrivoltaic project, fully demonstrating corporate emphasis on ecological protection.		HDRE creates a net-zero carbon demonstration zone in Yunlin Gukeng, achieving harmonious coexistence between green energy and ecology	
Project Highlights	• Ecological protection zone establishment: Preserve six-hectare waterfowl ecological area, maintaining habitats for black-faced spoonbills and other migratory birds. • Native plant protection: Preserve native mangrove zones, transplant and preserve rare plants like sea mangoes. • Biodiversity-friendly design: Promote biodiversity-friendly project site design, prohibit use of chemicals for module cleaning. • Cross-domain cooperation: Join Tainan Salt Marsh Wetland Restoration Alliance, support wetland ecological conservation plans.		• Abandoned farmland revitalization: Acquire unsuitable gravel land released by Taiwan Sugar for green energy development. • Community integration: Understand community needs through local briefings and workshops, adjust project design. • Multiple value creation: Establish recreational spaces, environmental education venues, ecological retention ponds and other multifunctional facilities. • Net-zero demonstration: Proactively respond to 2050 net-zero emission policy, becoming a demonstration case for photovoltaics and agricultural material reuse.	

Through these concrete actions, HDRE implements the sustainable development philosophy of "thriving with local communities and coexisting with ecology," making active contributions to Taiwan's energy transition and biodiversity conservation.

Future Outlook for Biodiversity

HDRE is committed to achieving the goals outlined in our Biodiversity Policy, upholding the core values of sustainable management and natural prosperity.

Our short-term target is to achieve zero net loss of biodiversity, while our long-term vision is to realize a net positive biodiversity impact by 2050.

We will continue to promote ecological surveys at project sites and protection, such as the waterfowl ecological area protection and native mangrove conservation at the Qigu project site, and green-energy environmental education and ecological retention pond construction at the Gukeng project site. In the future, we will further deepen cooperation with the Tainan Salt Marsh Wetland Restoration Alliance, supporting at least three years of wetland restoration plans, protecting migratory bird habitats and natural carbon sinks. Additionally, we will expand the application of biodiversity-friendly project site design, planning appropriate conservation measures for different environmental characteristics. Through cross-domain cooperation and continuous investment, we contribute to Taiwan's biodiversity conservation and sustainable energy transition.

05

Sustainable Talent, Happy Workplace

CH5 Sustainable Talent, Happy Workplace

Core Vision and Commitment

HDRE regards employees as one of the company's most important assets. In the 2024 materiality assessment, HDRE combined internal and external stakeholder perspectives, and identified two major issues highly related to employees:talent retention and attraction, and occupational safety and health, demonstrating the importance of talent cultivation to HDRE.

While ensuring a safe and secure working environment and occupational safety, HDRE integrates talent planning with corporate strategic goals, fostering a corporate spirit of innovation, passion, boldness, ambition, and sustainability pioneering. We are committed to creating comprehensive career development opportunities and an inclusive work environment for employees, providing competitive salaries and benefits, thereby establishing a stable talent pool for HDRE.

2024 Achievements and Performance

01 Continuously obtained **ISO 14001**, **ISO 45001**, and **ISO 9001** certifications and passed third-party verification.

02 HDRE's average employee average salary increase of **5%** this year, improving talent retention rates.

03 Total employee welfare expenditure in 2024 amounted to **NT$55,975,229**, an increase of **215%** from the previous year.

04 2024 hours worked without recordable occupational injuries reached **438,538** hours with **0** occupational injury incidents.

05 Total investment in employee education and training in 2024 reached **NT$ 648,755**

5.1 Human Resources Management Material Topic: Talent Attraction and Retention

HDRE views talent as a key asset for sustainable corporate development, committed to building a comprehensive talent management system and quality work environment. We believe that through competitive salary and benefit systems and clear career development paths, we can not only attract top talents but also effectively enhance employee loyalty and job satisfaction. In 2024, we continued to optimize talent development strategies and compensation systems, strengthen corporate culture construction, and create a mutually trusting and respectful workplace environment, creating win-win situations for both the company and employees.

5.1.1 Employee Overview GRI 2-7 GRI 2-8 GRI 401-1 GRI 405-1

Material Topic: Talent Attraction and Retention

Actual and Potential Impacts on Economy, Environment, and Society	Commitments and Achievements	Goals
Positive Impacts (Opportunities)	Company's Policies and Commitments on Talent Attraction and Retention:	Short-term Goals (1-2 years)
• **Career Development Promotion** Clear promotion opportunities and development paths enhance employee motivation, promote productivity and innovation, and reduce talent turnover. • **Compensation Incentives** Competitive salaries attract top talents, enhance job satisfaction and loyalty, and improve organizational performance. • **Welfare System** Comprehensive benefits not only improve quality of life but also increase work efficiency and creativity, strengthening corporate competitive advantages.	• **Talent Development Strategy** Establish a comprehensive talent development map, cultivate human capital, and shape a good corporate culture • **Maintain Salary Competitiveness** Provide market-competitive salaries and benefits, regularly adjust compensation levels to ensure employees receive reasonable remuneration • **Transparent Promotion Mechanism** Provide career development opportunities, ensure fair internal promotion systems, and establish clear promotion processes • **Open Communication Culture** Value employee opinions, create a supportive work environment, promote diversity and inclusion, ensure employees are respected	• **Deepen Career Planning** Provide skill training, career planning guidance, and cross-departmental exchange opportunities to help employees clarify development directions • **Implement Transparent Promotion** Establish clear promotion processes, motivate internal talent development, improve employee career development satisfaction • **Strengthen Diversification Policies** Promote diversity and inclusion, ensure employees are respected, create a positive work environment • **Continuously Optimize Benefits** Enhance salaries and benefits, implement flexible work arrangements and health plans, improve work-life balance

Actual and Potential Impacts on Economy, Environment, and Society	Commitments and Achievements	Goals
Negative Impacts (Risks)	2024 Results	Medium to Long-term Goals (3-5 years)
• **Risk of Talent Loss** If compensation and benefits lack competitiveness, it may lead to loss of key talents, affecting operational stability and technical inheritance. • **Insufficient Development Opportunities** Lack of clear career development paths may reduce employee work motivation, affecting organizational innovation capability and long-term development. • **Cultural Identity Gap** Mismatch between corporate culture and employee expectations may cause decreased retention rates, increasing recruitment and training costs.	• **Salary and Benefits Enhancement** Employee salary adjustment reached 5%, demonstrating emphasis on and investment in talent value • **System Building Improvement** Established promotion management measures, revised compensation measures, establishing a fairer and more transparent talent development mechanism • **Training Development Strengthening** Provided diverse education training and health promotion seminars, enhancing employee professional capabilities and physical/mental health • **Team Cohesion Enhancement** Organized employee recharge days, strengthening team cohesion, promoting cross-departmental collaboration and corporate culture identity	• **Improve Talent Reserve** Perfect talent reserve plans, provide opportunities with development potential, establish talent pipelines • **Promote Leadership Development** Promote senior leadership training, optimize promotion mechanisms, cultivate future leaders • **Deepen Corporate Culture** Shape a corporate culture centered on innovation and collaboration, promote cross-departmental cooperation, enhance organizational effectiveness • **Achieve Sustainable Co-prosperity** Ensure employees and company grow together, achieve long-term stable development, create win-win situations

Workforce Overview

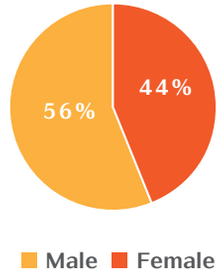
Workforce

HDRE values each employee's growth and individuality, and treats everyone with fairness and respect, regardless of gender, race, age, or marital and family status.

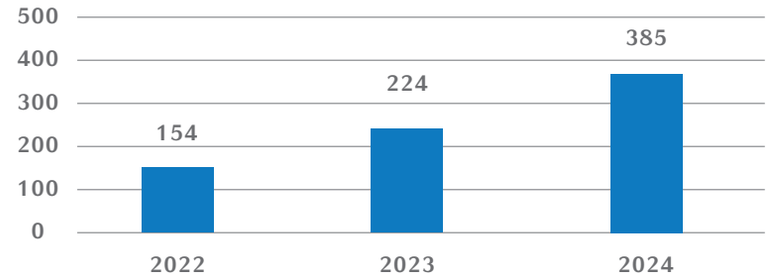
We strive to promote a friendly and inclusive workplace environment by enhancing employee benefits and implementing programs that create a more positive workplace experience — with measures that exceed labor law requirements.

As of the end of 2024, HDRE Taiwan employed a total of 385 people, including 374 full-time and 11 part-time employees. Among them were 170 female and 215 male employees, representing a male-to-female ratio of 1.26.

Gender ratio



Employee Changes Over Three Years



Employee Composition Statistics GRI 2-7 GRI 2-8

Compared with 2023, the total number of employees increased by 161 in 2024, reflecting continued business expansion and organizational growth. This year, HDRE did not employ temporary workers or workers without guaranteed hours.

Category	2024	Gender	Sum		Taipei	Taichung	Tainan	Kaohsiung	Penghu	Pingtung
Number of employees	Number of employees	Female	170		99	51	18	1	1	0
		Male	215		115	36	58	2	2	2
Contractual	Full-time	Female	165	97.06%	96	51	16	1	1	0
		Male	209	97.21%	111	36	56	2	2	2
	Part-time	Female	5	2.94%	3	0	2	0	0	0
		Male	6	2.79%	4	0	2	0	0	0
Non-Contractual[3]	Contractor	2024 headcount			Taipei	Taichung	Tainan	Kaohsiung	Penghu	Hualien
		13			11	1	0	0	0	1

1. Employee statistics only include Taiwan employees, excluding overseas subsidiary employees
2. Gender ratio = Number of male employees / Number of female employees.
3. Non-contracted workers include security, cleaning workers, engineering contractors, agency dispatched employees, apprentices, subcontractors, volunteers, etc.

Employee Diversity Analysis GRI 405-1

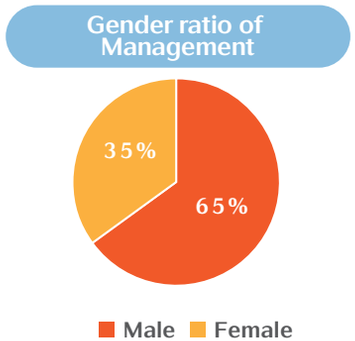
2024 Management and Non-management Staff

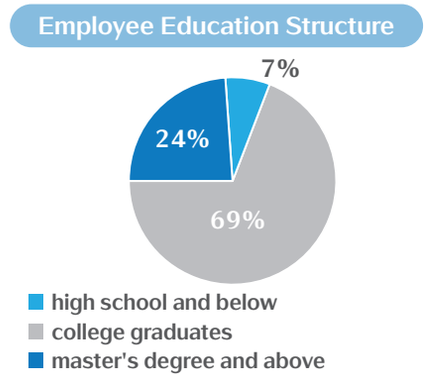
As of the end of 2024, HDRE had 95 male managers and 51 female managers in middle and senior management positions, representing 24.7% and 13.2% of total employees, respectively.

Overall, male employees make up approximately 55% of the workforce, while female employees comprise about 44%. HDRE promotes balanced employee development and fosters a diverse, equitable, and inclusive workplace that ensures equal opportunities and fair treatment regardless of gender.

2024 Employee Education Structure

By education level, 68.83% of HDRE employees hold a college degree, 24.16% hold a master's degree or higher, and 7.01% have a high school education or below, indicating that over 90% of HDRE's workforce possesses tertiary or higher education. This highly educated workforce contributes to the company's strong R&D capability and overall innovation performance.

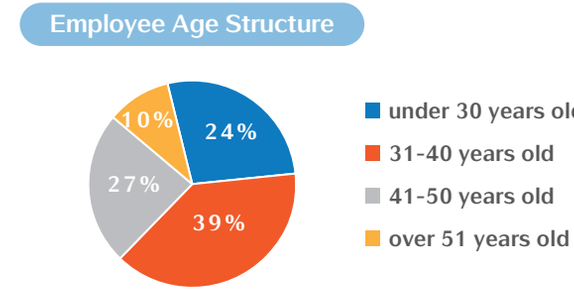




2024 Employee Age Structure

HDRE has a relatively young workforce, with 63.12% of employees (243 people) under the age of 40, while 9.87% (38 people) are over 51. This indicates that the company's overall workforce structure is young and dynamic.

HDRE provides opportunities for young professionals and values talent regardless of age. As long as individuals demonstrate capability and potential, they are given equal opportunities to become part of the company.



Average Employee Tenure and Age

HDRE's 2024 average employee tenure showed an overall upward trend, with males increasing from 2.09 years to 2.19 years; females rising from 1.83 years to 2.12 years, demonstrating our efforts in employee retention. On the other hand, average employee age showed a slight decline, with male employees decreasing from 38.69 to 38.64 years old, and female employees from 37.88 to 35.91 years old.

Talent Mobility Management GRI 401-1

Since 2020, HDRE has continuously expanded talent recruitment due to business expansion, striving to create a good workplace environment that attracts skilled professionals. Through diverse recruitment channels, comprehensive retention mechanisms, and management models that respect labor rights, we strengthen talent pool construction and maintain employee stability. In 2024, HDRE's overall talent flow trend showed increased new employees and decreased turnover rates, indicating that the company's policies on talent attraction and retention have shown effectiveness.

2024 New Employee Composition

In 2024, HDRE hired 148 new employees across six regions in Taiwan, covering all age groups and upholding the principles of diversity and inclusion in recruitment. Taipei recorded the highest number of new hires, followed by Tainan. By age group, employees under 30 made up the largest segment with 59 new hires, followed by those aged 31 to 40. By gender, 77 males and 71 females were hired.

Area	Total	Gender		Male				Female			
		Male	Female	Under 30	31 to 40	41 to 50	51 and above	Under 30	31 to 40	41 to 50	51 and above
Taipei	102	48	54	18	15	13	2	20	22	10	2
Taichung	21	8	13	3	1	4	0	3	9	1	0
Tainan	25	21	4	13	4	1	3	2	1	0	1
Total	148	77	71	34	20	18	5	25	32	11	3

2024 Resigned Employee Composition

In 2024, HDRE's turnover rate was 14.81% of total employees at year-end, representing an 8.95% decrease from 23.76% in 2023, indicating the effectiveness of the company’ s talent retention strategies.

To further reduce turnover, HDRE conducts exit interviews with departing employees and their direct supervisors, analyzes the findings to identify key reasons for resignation, and promptly adjusts compensation and benefits programs to strengthen overall talent management.

By continuously enhancing employee satisfaction, career development opportunities, and benefit programs, HDRE fosters a more attractive work environment and strengthens employee loyalty.

Area	Total	Gender		Male				Female			
		Male	Female	Under 30	31 to 40	41 to 50	51 and above	Under 30	31 to 40	41 to 50	51 and above
Taipei	32	8	24	3	4	1	0	10	6	6	2
Taichung	10	3	7	1	2	0	0	2	1	4	0
Tainan	15	12	3	8	3	0	1	1	1	1	0
Total	57	23	34	12	9	1	1	13	8	11	2

Employee Attraction and Retention Measures

Campus Talent Development Program

To attract and cultivate young talent, HDRE collaborated with Penghu University of Science and Technology's Electrical Engineering Department and National Pingtung University of Science and Technology's Aquaculture Department in 2024 to promote industry-academia cooperation programs, cultivating young talent through practical industry experience. After completing the cooperation, 4 students from both schools have obtained regular employee qualifications, with 2 students retained as regular employees.

We plan to launch campus recruitment programs in the future to recruit more fresh graduates to join HDRE, providing innovative competitive advantages for the company's industry.

Professional Talent Recruitment Cooperation

HDRE actively cooperates with external organizations for recruitment. In 2024, we worked with the Commerce Development Research Institute to match software development talents, with 2 candidates entering the company's internal selection process after evaluation. We also jointly organized employment matching recruitment with the Solar Energy Equipment Installation Trade Union. We will continue cooperating with external organizations to expand talent recruitment channels.

Prioritizing local hiring

To protect local employment opportunities, we prioritize hiring local residents during solar PV system construction and post-completion operation and maintenance periods for system construction, module cleaning and maintenance work. In the future, we will continue to actively recruit and attract personnel with green energy expertise through enhancing HDRE's sustainable brand visibility and diverse recruitment channels, enhancing corporate and employee competitiveness.

5.1.2 Compensation, Benefits, and Employee Well-being GRI 2-21 GRI 401-2 GRI 405-2

Compensation Policy and Commitment

HDRE recruits top talents to jointly pursue the vision of "Living with green electricity, accelerating a net-zero future". To achieve this goal, we provide industry-leading salary structures, offering employee stock ownership, profit sharing, performance bonuses, and year-end bonuses based on annual operating performance, enhancing employees' workplace competitiveness through comprehensive and generous compensation.

We also commit that employees will not face any discrimination or differential treatment based on age, gender, race, religion, or nationality. The company's compensation is determined comprehensively based on market salary levels, domestic economic price trends, and company operating results to maintain overall compensation competitiveness.

Operating Performance Reflected in Employee Compensation Policy

According to Article 26 of the company's Articles of Incorporation, HD Renewables has established a comprehensive profit-sharing mechanism to ensure close linkage between operating performance and employee compensation:

Employee Compensation Distribution Mechanism:

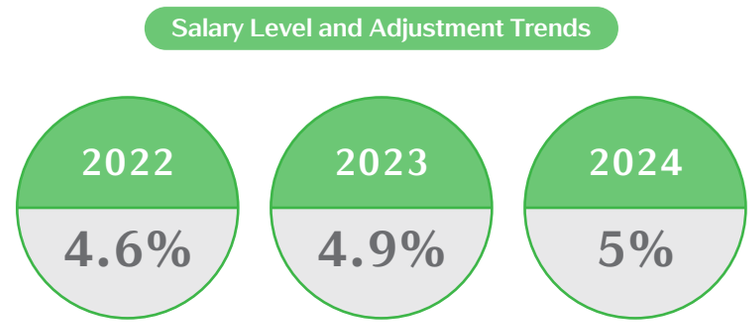
- Statutory Contribution Ratio: The company shall allocate 5%-10% of pre-tax profit (before deducting employee and director compensation) as employee compensation and no more than 3% as director compensation
- Employee Compensation Recipients: Including employees of affiliated companies meeting certain conditions
- Actual Implementation: The company's 2023 pre-tax profit (before employee and director compensation) was NT$1,073,905,159, allocating 5% as employee compensation and 1% as director compensation, all distributed in cash. Employee compensation recipients are limited to current employees of the company and its subsid iaries.

Overall Compensation Policy

- Annual provision of employee stock ownership, profit sharing, performance bonuses, and year-end bonuses based on operating performance
- Year-end Bonus System: Based on 1/3 of the company's after-tax operating profit, distributed to all employees after considering years of service and annual performance evaluations

Salary Level and Adjustment Trends :

- HDRE has gradually adjusted overall employee compensation levels over the past three years, continuously improving employee salaries. Every employee is HDRE's most important partner; we share operating performance with employees, fully reflecting business results in overall employee compensation to create a balance of mutual benefit between the company and employees.



Retirement System

The company handles retirement according to the "Labor Standards Act" and "Labor Pension Act" regulations. The company fully adopts the new labor pension system (defined contribution system) and has no employees under the old retirement system. According to the Labor Pension Act, the company contributes 6% of monthly salary as pension and withholds employees' voluntary contributions (0-6%) on their behalf.

Gender Pay Equality GRI 405-2

2024 Management and Non-management Gender Salary Ratio

In HDRE's 2024 gender pay ratio, the non-management male-female compensation ratio is 1.16:1; management level is 2.13:1.

HDRE is committed to ensuring employees receive no differential treatment based on gender for the same position and performance, allowing every employee to receive deserved compensation and treatment based on their contributions and performance.

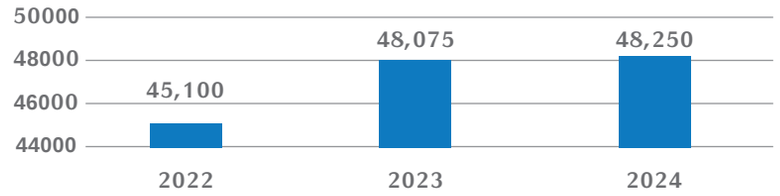
4.Management gender compensation ratio = Male management total salary : Female management total salary
5.Non-management gender compensation ratio = Male non-management total salary : Female non-management total salary

Unit: NT$	Male	Female
Management Level		
Average salary	127,035	97,187
Medians salary	87,050	77,000
Totals salary	12,195,370	5,734,030
Gender Compensation Ratio[4]	2.13:1	
Non-Management Level		
Average salary	53,003	44,988
Medians salary	52,000	44,500
Totals salary	7,049,335	6,073,350
Gender Compensation Ratio5	1.16:1	

Non-Management Employee Salary Level

HDRE's non-management employee overall salary level increased from NT$45,100 in 2022 to NT$48,250 in 2024, with average salary increasing by 6.9%. We are committed to enhancing employee salary competitiveness and more equal compensation structure, gradually moving toward a mutually beneficial and progressive happy workplace.

Median Salary of Non-Managerial Employees in Last 3 Years



Annual Total Compensation

In terms of annual compensation ratio, HDRE's 2024 full-time non-management employee average salary reached NT$1,183,000, an increase of 1.98% from last year. The median salary for full-time non-management employees reached NT$959,000, an increase of 1.37%.

Compensation Items	2023	2024	Rate of change
Average salary of full-time employees in non-managerial positions	1,160,000	1,183,000	+1.98%
Median salary of full-time employees in non-managerial positions	946,000	959,000	+1.37%

• Benefits System Superior to Legal Requirements

HDRE is committed to creating a healthy and fulfilling workplace environment that promotes employees' physical and mental well-being and enriches their work experience. The company has developed diverse and comprehensive employee benefit programs to meet employee needs, strengthen labor-management relations, and enhance job satisfaction and engagement. In addition to benefit programs, HDRE places strong emphasis on employees' physical and mental well-being.

The company follows Taiwan's new labor pension system, contributing 6% of each employee's monthly salary to individual pension accounts managed by the Bureau of Labor Insurance in accordance with the Labor Pension Act. These comprehensive benefits are designed to support employees' diverse needs across different life stages.

In 2024, HDRE's investment in employee welfare reached a record high of NT$55,975,229, demonstrating the company's commitment to treating employees as partners and advancing together toward a positive and people-centered workplace culture.

Economic Benefits	Protection Benefits	Entertainment Benefits	Facility Benefits	Development Benefits
• Birthday gifts • Meal allowances • Meal subsidies • Wedding/funeral subsidies • New retirement fund contributions	• Annual health check and labor insurance • Group insurance • Corporate childcare services • Maternal health risk assessment • On-site nurse interviews, psychologist care activities	• Employee travel • Holiday activities • Year-end party • Department employee dinners • Stress relief massage	• Nursing room • Employee recreation area • Multi-functional office and beneficial physical/mental environment	• External training subsidy of NT$2,000 per year

Welfare Committee Operations

The Welfare Committee held 5 meetings in 2024, completing committee re-election with 11 committee members. Major resolutions included:

- **System Optimization:** Promoted full digitalization of employee welfare application processes, including education subsidies, recreational activity subsidies, and wedding/funeral subsidies, completing electronic form teaching and announcement, greatly improving operational efficiency.
- **Employee Care:** Regularly distributed holiday gifts including Mother's Day, Dragon Boat Festival, Mid-Autumn Festival, Double Tenth Day, Shopping Festival, Christmas and Spring Festival activities, producing commemorative items with the group's new LOGO to strengthen employee belonging.
- **Benefit Expansion:** Completed contracted vendor renewal operations, continuing to provide employees with diverse preferential services, expanding employee welfare scope.

Through Welfare Committee operations, we continue optimizing employee welfare systems and promoting digital operations, effectively enhancing employee welfare application convenience and satisfaction.

5.1.3 Human Rights and Communication

GRI 2-23 GRI 401-3 GRI 406-1 GRI 408-1

Human Rights Policy Purpose

HDRE is committed to upholding internationally recognized human rights principles and standards. The company adheres to the UN Universal Declaration of Human Rights, the UN Global Compact, the UN Guiding Principles on Business and Human Rights (UNGPs), the ILO Declaration on Fundamental Principles and Rights at Work, as well as all applicable local laws and regulations in the course of its business operations, and has formulated and continues to update its Human Rights Policy.

Based on the principles of protection, respect, and remedy, HDRE takes actions in alignment with the Responsible Business Alliance (RBA) Code of Conduct, demonstrating its commitment to safeguarding human rights.

This policy applies to HDRE and all affiliated enterprises and subsidiaries, covering their direct operational activities, products, and services. It also extends across the value chain to stakeholders including, but not limited to, employees, customers, suppliers, partners, and joint ventures. Additionally, the company has established a Supplier Code of Conduct requiring all business partners to comply with these principles to ensure alignment with HDRE’s human rights commitments.

Diverse Workplace Inclusion

HDRE strictly complies with local laws, respects local cultures, and upholds international human rights standards. The company prohibits any form of discrimination or unequal treatment based on race, ethnicity, social class, language, ideology, religion, political affiliation, place of birth, gender, sexual orientation, age, marital status, appearance, or physical or mental disability.

The company values cultural diversity. Its employment policies focus on job requirements, professional qualifications, and development potential. As of 2024, the company employed one person with a physical or mental disability. HDRE actively supports the employment needs of diverse workforce groups and promotes inclusion in the workplace to enhance workforce diversity and equal employment opportunities.

HDRE regularly reviews employees’ professional competencies and continuously optimizes talent development programs to achieve balanced workforce growth. Additionally, job roles are periodically redesigned to accommodate employees with different professional backgrounds, ensuring that all employees can grow in alignment with the company’s development.

Human Rights Item	Policy Commitment	Specific Measures
Anti-Discrimination Principle	Ensure all employees enjoy equal treatment, eliminate all forms of discrimination	• Recruitment Equality:No discrimination in recruitment, promotion, rewards, training opportunities, work arrangements, wages, benefits, discipline, termination and retirement based on race, color, age, gender, sexual orientation, ethnicity, disability, religious beliefs, political affiliation, union membership, nationality or marital status • Gender Protection:No pregnancy testing requirements for women or discrimination against pregnant workers unless required by local laws or regulations • Testing Restrictions: No discriminatory drug testing of workers or prospective workers unless required by local laws or for workplace safety
Respect for Voluntary Labor Principle	Protect workers' right to freely choose work, prohibit forced labor and child labor	• Free Resignation: Workers can freely leave positions or terminate employment through advance application without being required to surrender government-issued identity documents, passports or work permits as employment conditions • No Fees: No recruitment fees required from employees • Child Labor Protection: No employment of workers under 15 years old, workers under 18 cannot work night shifts or overtime
Freedom of Association and Speech Principle	Respect workers' basic rights to organize unions and collective bargaining	• Association Rights: Workers enjoy freedom of association, freedom to form and join worker organizations, right to seek representation and collective bargaining • Recruitment Protection: No discrimination against workers based on union membership during recruitment, especially making abandoning union membership or agreeing not to join unions a recruitment condition • Activity Protection: No dismissal or discrimination of workers for union membership or participation in union activities outside work hours (or during work hours)
Compliance with Labor Standards Principle	Strictly comply with labor regulations at operating locations, provide legal rights protection	• Individual Labor Relations: Follow Labor Standards Act, Labor Pension Act and Act of Gender Equality in Employment to protect individual labor relations • Collective Labor Relations: Follow three labor laws (Labor Union Act, Act for Settlement of Labor-Management Disputes, Collective Agreement Act) to protect collective labor relations • Occupational Safety Protection: Follow Occupational Safety and Health Act, Labor Inspection Act and Protection for Workers Incurring Occupational Accidents Act to ensure employment safety and work environment • Compensation and Benefits Protection: Provide minimum wage standards required by relevant laws and legal benefits, pay overtime based on workers' overtime hours, and send salary details for employee reference before monthly salary payment
Prohibition of Harsh Treatment and Harassment Principle	Create zero-bullying, zero-harassment friendly workplace environment	• Comprehensive Prohibition: Strictly prohibit verbal violence, sexual harassment, physical violence, psychological (mental) violence and other behaviors • Coverage Scope: Including sexual harassment, corporal punishment, mental coercion, physical coercion or verbal abuse and other improper or illegal situations • Zero Tolerance Policy: Zero tolerance attitude toward any form of workplace violence and harassment

Promoting Gender Equality

HDRE's Human Rights Policy commits to ensuring that no discrimination occurs in promotion, compensation, or workplace conduct on the basis of gender or sexual orientation. The company strives to provide equal opportunities for all employees regardless of gender, enabling everyone to realize their full potential.

In 2024, female employees overall accounted for 44% of the total workforce, while women in middle and senior management positions accounted for 35%. The Board of Directors consisted of seven members, including one female director. According to HDRE's Board Diversity Policy, the company aims to achieve 25% female representation on the Board in the future to further advance gender balance and equality in governance.

Promoting Maternal Workplace Care

To support employees with childcare responsibilities and promote work–life balance, HDRE has established dedicated lactation rooms at all offices. Each room is equipped with essential amenities, including but not limited to chairs with backrests, tables, curtains, power outlets, dedicated breast-milk refrigerators, hand soap, covered trash bins, telephones, and storage cabinets, for employees who are breastfeeding or expressing milk.

In response to government policies, HDRE has established comprehensive parental leave programs, including maternity, paternity, family care, and prenatal leave. In 2024, HDRE conducted 15 workplace environment and occupational hazard assessments related to maternal health protection.

Maternity health protection workplace environment and operational hazard assessment :

- **Hazard Assessment:** All assessments showed no hazards, maintaining original work with no need for job changes
- **Health Guidance:** Provided guidance on pregnancy precautions including epidemic prevention education, varicose vein prevention, appropriate exercise recommendations, and health check result education
- **Abnormality Tracking:** For pregnant employees with abnormal health checks, provided health education on abnormal items, recommended regular clinic follow-ups, and compliance with medical instructions for regular prenatal checks
- **Childcare Consultation:** Guidance on complementary food feeding methods and types, child vaccine consultation

2024 HDRE Employee Parental Leave Return and Retention Rates GRI 401-3

Categories	Statistical data	Male	Female
Return Rate	Number who should return from parental leave in 2024	1	7
	Number who actually applied to return from parental leave in 2024	0	7
	Return Rate	0%	100%
Retention Rate	Number who returned in 2023	0	3
	Number who stayed one year in 2023	0	3
	Retention Rate	-	100%

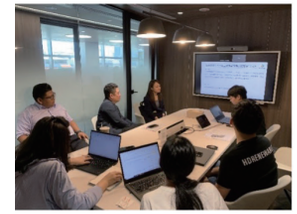
Employee Care and Communication Channels

Labor-Management Communication Mechanism Establishment

HDRE is committed to maintaining transparent and open labor-management relations and establishing effective communication channels. The company ensures the protection of employee rights through diverse workplace communication and grievance mechanisms. All grievance cases are handled in strict confidence and processed in a timely manner. Appropriate response measures are taken to minimize potential impacts on both employees and management.

Communication channels include regular labor-management meetings, welfare committee meetings, employee forums, suggestion boxes, and other forms of dialogue. These mechanisms help maintain harmonious relations between labor and management and ensure equality and fairness in employee participation.

2024 Labor-Management Meeting Implementation Results



HDRE held 4 meetings each in Taipei and Taichung in 2024, totaling 8 labor-management meetings, discussing employee rights protection, welfare policies and work environment issues. Meetings reached agreements on meal allowance adjustments, travel expense electronic disbursement optimization, and completed next year's office calendar planning, effectively promoting labor-management communication and coordination. No major labor disputes occurred in 2024.

Employee Opinion Feedback Mechanism

Annual Performance Evaluation Mechanism

Currently using annual evaluation mechanisms to understand employee opinions, with 100% of employees receiving evaluations in 2024, through which employee opinions are gathered including feedback on salary and benefits, talent recruitment, education and training, cross-departmental communication and other aspects.

Employee Satisfaction Survey Planning

To more comprehensively understand employee job satisfaction, the company plans to begin conducting employee satisfaction surveys starting in 2025, collecting employee opinions in a more systematic manner to continuously improve the work environment and employee well-being.

Employee Communication Channels and Policies

Communication Channel	Communication Target	Communication effectiveness				
		Unite Cohesion	Diverse Learning	Internal Business Discussion	Company Strategy Formulation and Implementation	Professional Field and Development
Education Training	All employees	●	●			●
New Employee Assessment	New employees	●		●		●
Performance Evaluation	all employees	●		●		●
Labor-Management Meeting	Labor-management representatives,all employees	●				
Health Seminars	all employees		●			
Employee Recharge Day	all employees	●	●			
Employee Travel	all employees	●				
Year-end Party	all employees	●				
Senior Management Meeting	Senior management	●		●	●	
Department Meeting	all employees	●		●	●	

Workplace Violence and Sexual Harassment Grievance GRI 406-1

Prevention Policies and Measures

We are committed to implementing respect for human rights concepts. In addition to formulating human rights policies, we also incorporate principles and measures of equality, anti-discrimination, and communication channels into employee management systems.

We are committed to maintaining a workplace free of bullying and harassment, including sexual harassment prevention in new employee training materials, conducting annual education and training for new and current employees, and irregularly promoting what constitutes sexual harassment, types of sexual harassment, and grievance channels through meetings and emails. If sexual harassment occurs, employees can file complaints through the sexual harassment complaint hotline or dedicated email inbox. At the end of each year, we submit annual statistics on sexual harassment and complaint cases for tracking and control.

2024 Implementation Results: Zero workplace violence, discrimination or sexual harassment complaints occurred in 2024.

Communication Effectiveness

Multiple Grievance Channels	Grievance Contact Methods	Grievance Protection Measures
• Internal employees: HR mailbox or employee complaint hotline (named or anonymous) • External stakeholders: Phone, mailing address or email	• HR Administration Unit: +886-4-2255-8858 #301 • Audit Unit: +886-4-2255-8858 #220 • Complaint Email: equality@hdrenewables.com	• Whistleblower identity and content strictly confidential • Legal protection of whistleblower personal data and privacy • Ensure protection from retaliation or unfair treatment

5.2 Talent Development

5.2.1Talent Development Strategy and Structure GRI 404-1 GRI 404-3

HDRE is committed to building comprehensive talent cultivation systems, using diverse learning resources to enhance employees' professional capabilities and autonomous learning awareness. We develop systematic training roadmaps based on departmental needs and individual performance requirements, advancing employees' professional knowledge and work efficiency while promoting cross-departmental collaboration and cultivating professionals with both theoretical knowledge and practical experience for the green energy industry.

In 2024, total education and training investment reached NT$648,755, with 357 courses company-wide and cumulative training reaching 1,952 person-times.

Education and Training System Innovation

Starting in 2024, the HR department proactively understands each department's professional skill needs, transforming to establish systematic talent development mechanisms:

- **Competency Mapping:** Distinguishing core, professional and management competencies, with professional competency training as the main axis
- **New Employee Development Process:** Conducting new employee education training every two months with complete evaluation processes
- **Job Level Reclassification:** Implementing corresponding human capital management and talent development strategies
- **Digital Management:** Introducing systematic training management to ensure alignment with organizational strategy

• 2024 Comprehensive Training Structure GRI 404-1

To ensure comprehensive employee training, the company added "Unit Position Job Descriptions" with unit supervisors or designated senior employees conducting relevant training to ensure training completeness and professionalism, effectively enhancing human resource utilization, cultivation and competency assessment. To address group growth, we hold annual supervisor training courses to enhance management capabilities. We encourage employees to engage in diverse learning activities based on company development direction, organizational needs and individual performance requirements.

Training Architecture

The company builds a complete hierarchical training system, adhering to the "Learning By Doing" philosophy, enriching learning experiences through experiential activities, case discussions, group discussions and video appreciation.

The training structure covers new employee training, key competency development, professional on-the-job training and hierarchical training, establishing diverse continuing education channels to ensure employees' continuous learning, growth and career development.

Sustainability Professional Training Highlights

Addressing green energy industry development needs, the company specifically invests in ESG and sustainability professional training:

- **Sustainability Disclosure:** Strengthening sustainability report preparation capabilities
- **Carbon Footprint Management:** Enhancing greenhouse gas inventory and management skills
- **Supply Chain ESG:** Establishing sustainable procurement and supplier management capabilities
- **Solar PV Technology:**Deepening renewable energy professional technology

2024 Training Results Statistics

- **Investment Amount:** NT$648,755
- **Total Courses:** 357 (305 internal training, 52 external training)
- **Total Training Person-times:** 1,952 (1,879 internal training, 73 external training)

Employee Education and Training Hours Statistics GRI 404-1

In 2024, the total investment in education and training reached NT$648,755, comprehensively enhancing new employee training and professional training hours, and investing resources in ESG education and training, including supply chain management, carbon footprint, and sustainability information internal control topics. HDRE continues to provide employees with the resources they need, strengthening their training and skill development. Education and training cumulatively reached 1,952 person-times and 4,856 hours.

Position Level	Male		Female		Total		
	Person-times	Hours	Person-times	Hours	Person-times	Hours	Per Capita
General Staff	555	1,522	843	1,689	1,398	3,211	2.3
Mid-level Management	257	665.5	205	575.5	462	1,241	2.7
Senior Management	63	192	29	112	92	304	3.3

Internal Training Course Statistics (305 courses, 1,879 people)

Training Category	Course Count	Participants	Sustainability Relevance	Main Course Content
New Employee Basic Training	67	402	Building basic understanding of sustainable operations and occupational safety	• Information Security Awareness Education (1 session/171 participants) • New Employee Safety and Health Education (59 sessions/107 participants) • New Employee Education Training (6 sessions/98 participants) • Integrity Management Guidelines (1 session/131 participants)
Professional Skills Training	86	519	Deepening green energy expertise and management system operations	• ISO Management System Training (8 sessions/206 participants) • Solar PV Professional Training (1 session/18 participants) • Hazardous Chemical General Knowledge Training (21 sessions/60 participants) • Special Operations Safety and Health Training (23 sessions/34 participants) • Brand Marketing Series Courses (6 sessions/101 participants)
Safety and Health Management	129	549	Ensuring employee safety and health, implementing safety management	• Three-Year On-the-job Safety and Health Education (12 sessions/34 participants) • Incident Investigation and Corrective Prevention Management (57 sessions/106 participants) • Contractor Management Education Training (35 sessions/53 participants)
Health Promotion	62	338	Promoting employee physical and mental health and work-life balance	• Parent-Child Education and Communication Seminars • Workplace Violence Prevention (1 session/68 participants) • Chronic Disease Prevention Seminars
Management Systems and Information	22	421	Enhancing sustainability governance capabilities and information management efficiency	• Electronic Document System Training (1 session/38 participants) • Senior Management One-Day Consensus Camp (1 session/28 participants) • ISO27001 Information Security Training (2 sessions/31 participants) • Document Management System Briefing (1 session/26 participants)

External Training Course Statistics (52 courses, 73 people)

Training Category	Course Count	Participants	Sustainability Relevance	Main Course Content
Sustainability Development and Energy Management	8	9	Strengthening sustainable business practices and green energy technology	• Sustainability Information Disclosure Policy Analysis (1 session/1 participant) • Product Carbon Footprint Calculation and Implementation (1 session/1 participant) • Procurement and Supply Management ESG Strategy (1 session/2 participants) • Solar PV Inspection Elite Class (1 session/1 participant)
Occupational Safety and Health	14	17	Enhancing safety and health management professional capabilities	• Occupational Safety and Health Business Manager Training (3 sessions/3 participants) • ISO 45001 Internal Auditor Training (1 session/2 participants) • First Aid Personnel Training (5 sessions/6 participants)
Skills Certification Training	13	19	Strengthening professional skills and operational safety	• Aerial Work Platform Operation (3 sessions/6 participants) • Forklift Operation Training (3 sessions/5 participants) • Crane Operation Training (1 session/1 participant)
Data Analysis and Information Technology	6	8	Enhancing digital management capabilities	• Power BI Big Data Analysis (2 sessions/4 participants) • MySQL Database Management (1 session/1 participant) • UI Visual Interface Design (1 session/1 participant)
Management and Regulations	11	20	Strengthening internal control management and regulatory compliance	• Internal Auditor Training (3 sessions/4 participants) • Procurement Certification Courses (2 sessions/4 participants) • Gender Equality Study (1 session/1 participant)

• Performance Management and Compensation System GRI 404-3

The company has established a systematic performance management framework that achieves the dual objectives of talent motivation and organizational development through an integrated mechanism of goal setting, performance evaluation, and performance linkage. We are committed to attracting and retaining the best talents in the green energy industry, encouraging colleagues to create outstanding sustainable performance, establishing competitive salary structures, and cultivating long-term human capital through incentive systems.

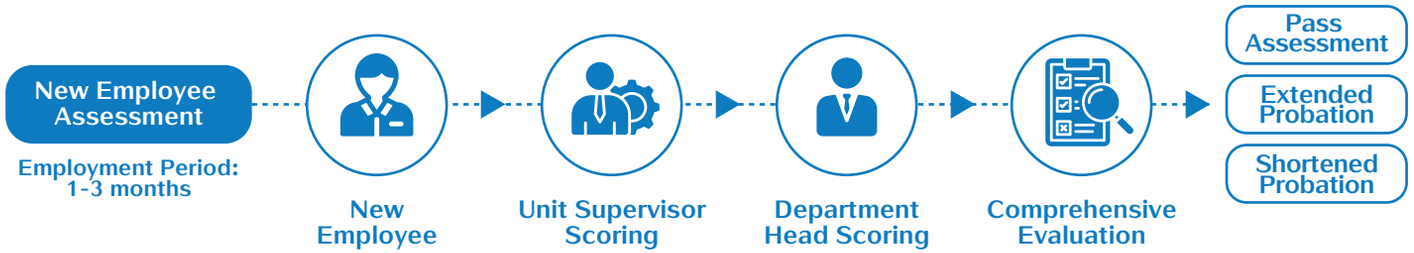
Goal-Driven Performance Management System

The company differentiates between management and employees by job level, setting clear performance goals and conducting systematic management to ensure individual goals align closely with organizational sustainable development strategies. Through regular review and adjustment mechanisms, we promote continuous employee growth and enhance overall organizational effectiveness.

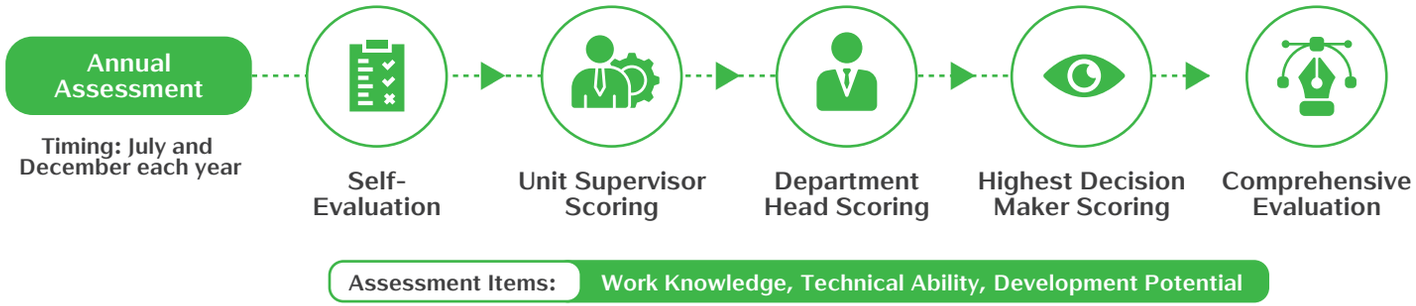
Evaluation Mechanism Description

New Employee Evaluation System: Conducts professional evaluations 1-3 months after employment through multi-level assessment including unit supervisor scoring, department head scoring and comprehensive evaluation, determining pass, extended probation or shortened probation based on results to ensure new employees quickly integrate and meet professional requirements.

Assessment Mechanism Flowchart



Annual Performance Evaluation System: Implements semi-annual evaluations for current employees (July and December), covering work knowledge, skill abilities and development potential. Through multi-level evaluation processes including self-evaluation, unit supervisor scoring, department head scoring and highest decision-maker scoring, we ensure evaluation objectivity and fairness.



Integrating Performance with Compensation and Rewards

The company establishes fair and transparent performance evaluation mechanisms to promote work efficiency improvement and strengthen talent retention. Through systematic performance management, we organically combine individual performance with career development opportunities, salary adjustments and reward systems, creating an organizational culture that motivates continuous employee improvement.

2024 compensation system innovations include digitalizing compensation processing procedures, formulating director-level manager and employee compensation measures, and establishing more competitive and fair compensation systems.

Future Outlook and Continuous Improvement

HDRE is committed to becoming a leader in green energy industry talent cultivation, creating professional knowledge learning opportunities for young students and assisting career planning through deepening industry-academia cooperation mechanisms. We will continue recruiting excellent talents to inject innovative energy into the organization while aligning with global net-zero carbon trends, deepening sustainability professional course content covering forward-looking topics like carbon management and circular economy, cultivating employees to become green energy talents with both technical expertise and sustainability thinking.

In response to digital transformation trends, the company will strengthen digital learning platform construction, integrate online and offline learning resources, and systematically pass on organizational expertise and practical experience through establishing internal instructor cultivation systems. By establishing long-term talent development planning that closely integrates individual career development with organizational sustainability strategies, we create win-win situations for employee and corporate growth, laying a solid human capital foundation for achieving sustainable business vision.

5.3 Achieving a Friendly Workplace Material Topic: Occupational Safety and Health

HDRE is committed to creating a safe, healthy and friendly work environment. We believe a quality workplace environment is not only the cornerstone of sustainable corporate development but also a basic commitment to employee health and rights. Through comprehensive management systems, professional safety and health organizations, and rigorous inspection systems, we continuously enhance all employees' safety and health awareness, extending this concept to suppliers (contractors) to jointly practice workplace safety culture.

Material Topic: Occupational Safety and Health

Actual and Potential Impacts on Economy, Environment, and Society	Commitments and Achievements	Goals
Positive Impacts (Opportunities)	Company's Policies and Commitments on Occupational Safety and Health	Short-term Goals (1-2 years)
Establishing safe work environments, strengthening hazard prevention and promoting employee health, enhancing supply chain occupational safety and health management capabilities	• **Risk Control Enhancement** Establish safe work environments, strengthen hazard prevention and promote employee health • **Health Promotion** Promote employee physical and mental health, continue conducting employee health examinations • **Enhance Supply Chain Management** Continue conducting supplier (contractor) factory visits and guidance • **System Management Optimization** Promote digital management systems	**1.Risk Control Implementation** 100% completion of JHA risk control items before construction site operations, formulate and implement annual environmental safety KPIs with indicators achieving 95% or above compared to previous year, and obtain 720,000 no-accident working hours medal **2.Employee Health Care** Promote health management activities, expand health APP activities to family members, and continue conducting employee health examinations and nurse health monitoring **3.System Management Optimization** Plan to complete electronic license control interface promotion by 2025 and assist subsidiaries with safety and health management system verification

Actual and Potential Impacts on Economy, Environment, and Society	Commitments and Achievements	Goals
Negative Impacts (Risks)	2024 Achievements	Medium to Long-term Goals (3-5 years)
Improper occupational safety and health management may negatively impact employee health,affecting corporate image and stakeholder confidence	• **Supplier Guidance** Completed environmental safety and health factory visit guidance for 3 new cooperative suppliers • **Safety Investment** Invested NT$2,248,100 in environmental safety and health management plans, an increase of NT$1,140,000 from 2023 • **Emergency Response Enhancement** Conducted 12 emergency response drills throughout the year with 695 participants • **Contractor Management** Held 11 large-scale consultative organization meetings with 26,510 contractors complying • **Digital Management** Established internal electronic environmental safety and health management system platform, expected to be fully integrated by 2027	**1.Digital management** Complete environmental safety and health management system integration by 2027 **2.System Expansion** Introduce environmental safety and health management systems to subsidiaries, planning to complete management system verification for listed subsidiaries by 2027 **3.Supply Chain Deepeningn** Continue implementing supply chain occupational health and safety management capability visits and guidance **4.Culture Building** Establish safety and health culture, conduct related safety and health activities

5.3.1 Occupational Safety and Health Management Measures GRI 403-1

HDRE's occupational safety and health management is directly supervised by the Chairman, with the Environmental Safety and Health Office reporting directly to the Chairman, ensuring OSH policies receive full support and resources from top management. The Board regularly receives occupational safety and health implementation reports and supervises annual goal setting and performance reviews.

Occupational Safety and Health Committee GRI 403-4

Item	Content
Organizational Level	Functional committee under the Board of Directors
Committee Composition	Total of 17 members (6 labor representatives accounting for 35%, 11 management representatives accounting for 65%)
Meeting Frequency	Quarterly meetings, 4 meetings held in 2024
Main Responsibilities	• Risk Management Enhancement: Establish safe work environments, strengthen hazard prevention and promote employee health • Health Promotion: Promote employee physical and mental health, continue conducting employee health examinations • Supply Chain Enhancement: Continue conducting supplier (contractor) factory visits and guidance • System Management Optimization: Promote digital management systems
Decision Authority	Have policy formulation, budget allocation, and improvement plan approval authority
Labor Protection	• Establish grievance mechanisms to protect workers from disciplinary action • Ensure labor representative participation in decision-making processes • Establish multiple communication channels
Directly Managed Units	Smart Service Division, Asset Management Division, Product Manufacturing Division, Business Division, Project Management Division, Engineering Division, Finance and Accounting Division, Administrative Management Division, Information Division

ISO Management System Certification GRI 403-8

HDRE simultaneously introduced ISO 14001 (Environmental Management System), ISO 45001 (Occupational Safety and Health Management System), and ISO 9001 (Quality Management System) in 2023, obtaining third-party certification. These management systems cover all employees and non-employees whose work and/or workplace is controlled by the organization.

Additionally, in line with the company's renewable energy business development and energy conservation goals, HDRE planned to introduce ISO 50001 Energy Management System in Q3 2024, expecting certification by Q4 2025 to systematically manage energy efficiency and continuously improve energy performance.

Management System	ISO 14001		ISO 45001		ISO 9001	
Verification Date	September 2024		August 2024		August 2024	
Valid Until	2026-11-27		2027-09-05		2027-08-12	
Coverage	All operational sites and construction sites		All operational sites and construction sites		All operational sites and construction sites	
Verification Scope	North/Central/South operational sites + Yun Deng Solar and Pingtung Energy Storage sites		North/Central/South operational sites + Yun Deng Solar and Pingtung Energy Storage sites		North/Central/South operational sites + Yun Deng Solar and Pingtung Energy Storage sites	
Main Benefits	Environmental risk identification and control		Systematic safety and health management		Ensure engineering quality delivery	

Management System Coverage Statistics GRI 403-8

Worker Type	2024 Coverage	Internal Audit	External Verification	Exclusion Description
Employees	100% (190 people)	100%	100%	No workers excluded
Non-employee Workers	100% (33 contractors)	100%	100%	No exclusions

• Environmental Safety and Health Digital Management Platform Introduction

To integrate management processes and accelerate ESH information transmission,HDRE evaluated introducing a document collaboration control platform in August 2024.

This platform will serve as the digital foundation for the three management systems, effectively managing ISO documents, departmental document systems, and education training databases (including professional licenses).

ESH Document and License Management System Interface	Expected Benefits	Current Progress
	• Improve Efficiency: Enhance document control quality, reduce document management costs • Strengthen Control: Effectively control compliance and ESH execution performance (including ISO) results • Promote Communication: Quickly transmit relevant information for internal staff awareness and compliance • Enhance Collaboration: Promote departmental collaboration and corporate sustainability inheritance • Knowledge Inheritance: Systematic knowledge sharing, continuous inheritance of experience and core capabilities	Software evaluation completed, confirming document control platform templates, beginning departmental interviews and requirement confirmation. Platform architecture final confirmation and testing planned for Q2 2025, with license management system expected to officially launch in Q3 2025.

5.3.2 Hazard Identification, Risk Assessment and Incident Investigation GRI 403-2

Hazard Identification and Risk Assessment Process

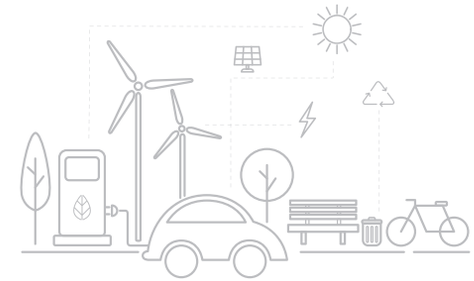
HDRE establishes systematic hazard identification and risk assessment processes according to ISO 45001 occupational safety and health management system and related safety procedures, covering routine and non-routine assessment procedures and applying hierarchical control strategies to eliminate hazards and minimize risks.

Assessment Type	Routine Assessment	Non-routine Assessment
Implementation Timing	• Annual Assessment • Regular Review: Annually and when operations change, before contractor construction	• When procedures change • When equipment changes • After incidents occur
Assessment Scope	• Work Sites: Offices, sites, warehouses • Work Activities: All routine and non-routine activities and situations	• Affected areas • Affected personnel • New hazard factors
Quality Assurance Mechanism	• Personnel: Quality risk management team members must complete quality risk identification training • Quality Control: Risk events affecting company quality or customer satisfaction must be included • Documentation: Set action plans for risk results, establish improvement or control plans for monitoring	• Change management procedure triggered • Project team assessment • Continuous improvement mechanism operation

2024 Hazard Identification Statistics

HDRE completed 319 hazard identifications in 2024, establishing a complete risk assessment matrix and conducting risk hierarchical control based on likelihood and severity:

Risk Level	Quantity	Management Measures
A-Level(Major Risk)	0	Immediate work stoppage and improvement
B-Level(High Risk)	1	Include in management plan,continuous monitoring
C-Level(Medium Risk)	266	Appropriate supervision and measurement, including 4 opportunity items
D-Level(Low Risk)	52	Maintain existing control measures



Occupational Hazard Type Identification and Hierarchical Control

Ensuring all work environments, based on risk level, frequency, and regulatory importance, we selected 8 main hazard types for key control:

Work Environment	Major Hazard Type	Risk Level	Specific Hazard Factors	Control Measures
Office Work	Ergonomic Hazards	D Level	• Shoulder/neck pain and eye fatigue from prolonged computer work • Carpal tunnel syndrome from repetitive motions • Back stiffness from prolonged sitting	• Install laptop stands for comfortable posture • Conduct musculoskeletal symptom surveys • Promote adequate rest and movement
	Psychosocial Risks	C Level	• Grid connection timeline pressure overload • Workplace violence (sexual harassment, verbal violence) • Abnormal workload	• Overload questionnaire surveys and medical interviews • Implementation per violence prevention plan • Appropriate psychological stress relief
Site Construction and Engineering Work	Ergonomic Hazards	C Level	• High-altitude bracket installation without safety belts • Use of unqualified or improperly operated ladders • Unprotected openings	• Mandatory safety belt use • Aerial platform operation license control • Use metal ladders with integrity checks
	Flying Objects	C Level	• Equipment failure or inadequate inspection in lifting operations • Inadequate crane operation area control • Insufficient safety measures during material handling	• Fully extended outriggers with hard support pads • Work area control and personnel supervision • Anti-slip tongue inspection
	Electrical Hazards	D Level	• Electrical equipment maintenance without proper disconnection • Lack of protection for temporary electrical equipment • Damaged tool insulation	• Insulation protective equipmen • Energy control procedures • Ground fault circuit interrupter checks
	Electrical Hazards	C Level	• Construction equipment colliding with personnel • Improper hand tool cutting operations • Inadequate mechanical equipment self-inspection	• Construction equipment entry permit control • Non-related personnel prohibited from work areas • Collaborative work and site supervision
Climate Change Hazards	Electrical Hazards	C Level	• Heat exhaustion from high-temperature summer work • Heatstroke and dehydration from prolonged sun exposure • Extreme weather affecting work safety	• Rest area setup and cooling equipment • Work time adjustment and adequate rest • Emergency response procedure establishment
Warehouse and Material Handling Operations	Electrical Hazards	C Level	• Forklift operation causing tipping • Cargo stacking too high causing collapse • Heavy lifting causing musculoskeletal injuries	• Forklift operation license control • Material handling safety procedures • Self-inspection and speed contro

Major Risk Control Measures

Engineering contractor management was identified as a B-level high risk item in this identification. HDRE implements the following control measures for this risk:

Control Level	Engineering Controls	Administrative Controls	Personal Protection
Engineering Controls	• Full extension and support of outriggers • Thorough inspection of anti-slip tabs • Installation of guardrails and barriers	• Contractor qualification review • Work area access control • Convening of consultative organizations	• Hard hat and safety shoe wearing • Safety belt usage • Cut-resistant glove wearing
Personal Protection	Check before each operation	Monthly evaluation and tracking	Daily operation confirmation

Worker Hazard Reporting and Right to Refuse Unsafe Work Protection GRI 403-2

HDRE establishes comprehensive worker hazard reporting processes and protects workers from disciplinary action:

Protection Principle	Specific Measures	Implementation Mechanism	
Hazard Reporting Protection	Workers report occupational hazards without disciplinary action	• Toolbox meetings and hazard notifications • Online hazard reporting system	• OSH committee grievance mechanism
Safety Withdrawal Rights	Workers can stop work when believing environment is unsafe	• Workers can leave situations of immediate harm • Protection policies prevent adverse treatment	• Training enhances withdrawal rights awareness
Privacy Protection	Personal health information confidentiality maintained	• Dedicated health data management • Not used for employment decisions	• Complies with personal data protection requirements
Fair Treatment	Ensure no adverse treatment for OSH activity participation	• Prohibit discrimination for safety activities • Establish grievance mechanisms	• Regular protection measure effectiveness review

Incident Investigation and Continuous Improvement Mechanism GRI 403-2

HDRE establishes comprehensive incident investigation, tracking, corrective prevention and prevention mechanisms:

Investigation Phase	Specific Measures	Time Requirements	Improvement Measures	2024 Implementation Results
A. Investigation Initiation	• Comprehensive investigation initiation • Root cause confirmation	Immediately after incident occurrence	Responsible units should proactively investigate personnel, facilities or equipment, operation methods, work sites, etc.	• Major occupational injuries: 0 • completion rate: 100%
B. Deficiency Tracking	• Responsible unit notification • Tracking registration	Within 7 working days	• Fill out "Corrective Action Request Form" or "Incident Investigation Form" • Attach before/after improvement photos	Investigation Initiation: 2024 opened 32 items requiring improvement, all completed

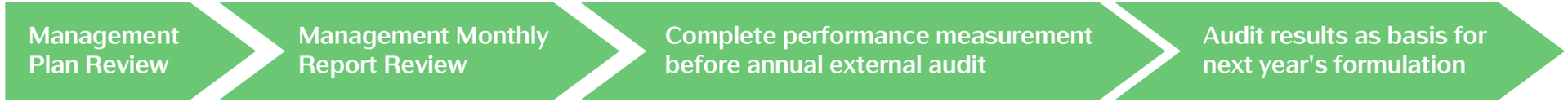
Investigation Phase	Specific Measures	Time Requirements	Improvement Measures	2024 Implementation Results
C. Corrective Prevention	• Submit improvement plans • Include in audit verification	Within 7 working days	• Consider risk reduction control hierarchy • Propose improvement measures and handling methods	• Corrective Prevention Completion Rate: 100%
D. Prevention Mechanism	• Systematic prevention • Hierarchical control measures	Continuous implementation	Implement based on risk level: Eliminate hazards → Replace → Engineering controls → Administrative controls → Personal protection	Prevention Mechanism Effectiveness: 100%

5.3.3 Occupational Health Services and Promotion GRI 403-3 GRI 403-6

Environmental Safety and Health Implementation Performance and Goals

HDRE proactively established environmental safety and health implementation performance and goals in October 2024, implementing monthly management plans and report reviews. Based on risk inventory results, we set corresponding performance indicators for major risk categories to ensure risk control effectiveness. All 6 indicators achieved 100% compliance with goals in 2024, fully reflecting the company's high emphasis on and effective implementation of environmental safety and health management.

Process flow diagram showing



Environmental Safety and Health Performance Metrics Table

Risk	Indicator	Measurement Method	Measurement Frequency	Criteria/ Year	Result	Remarks
Overall Risk Management	Environmental and Occupational Safety and Health Goal Achievement Rate (%)	Completed items in annual environmental safety and health quality management plan / Total target items	Annual	100%	100%	Risk/Opportunity Management Plan
Risk Implementation	Environmental and Occupational Safety and Health Management Plan Progress Achievement Rate (%)	Current year occupational safety and health management plan items meeting scheduled progress / Total plan items	Quarterly	100%	100%	Corresponding to environmental and occupational safety and health management plans
Occupational Safety, Health and Environmental Regulatory Risk	Environmental and Occupational Safety and Health Penalty Count	Statistics of penalty counts	Quarterly	3 or less	0	Risk
Continuous Improvement Mechanism	Environmental and Occupational Safety and Health Management Recommendation Improvement Rate	Environmental and occupational safety and health recommendation improvement count statistics	Quarterly	100%	0	Opportunity
Work Environment Health Risk	Major Occupational Injuries (excluding traffic accidents) and Major Environmental Violations Statistics	Major occupational injury occurrences Major environmental pollution occurrences	Quarterly	1 or less	0	Risk (referring to public nuisance pollution complaints)
Occupational Safety, Health and Environmental Regulatory Risk	Major Public Nuisance Pollution Complaint Cases	Cases of public nuisance pollution complaints filed with environmental agencies in written or verbal form	Statistics per site quarterly	1 or less	0	Risk

• Occupational Safety and Health Education Training GRI 403-5

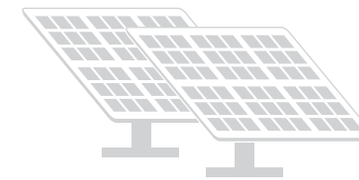
HDRE invests substantial resources in environmental, safety and health education and training, demonstrating emphasis on employee safety and environmental sustainability. Through systematic training planning, we establish a comprehensive environmental safety and health management system. HD demonstrated an active attitude toward environmental safety and health education training in 2024, establishing a complete environmental safety and health management system through 309 courses with 1,047 participants. We will continue deepening training content and strengthening practical applications to create greater value for employee safety and environmental sustainability.

Training Category	Course Content	Courses	Participants	Main Effectiveness
Management System Building and Certification	• ISO management system integration training: Covering quality (ISO 9001), environment (ISO 14001), occupational safety (ISO 45001) three major systems • Energy management system: ISO 50001 energy performance indicators and baseline establishment • Internal audit capability building: Cultivating internal audit professionals	145	177	Establishing systematic environmental safety and health management framework, ensuring management quality and continuous improvement mechanisms through international standards, enhancing organizational overall environmental safety and health performance
Occupational Safety and Health Basic Training	• New employee safety education: Ensuring new personnel possess basic safety awareness • On-the-job safety education: Regularly strengthening existing employee safety knowledge • Hazardous chemical management: Enhancing chemical use safety	125	245	Establishing all-employee safety awareness foundation, ensuring every employee possesses basic hazard recognition and protection capabilities, reducing occupational injury occurrence rate
Employee health promotion and regulatory compliance	• Health promotion seminars: Cover diverse topics such as disease prevention, nutrition and wellness, and stress management • Emergency first aid skills: Enhance employees' ability to respond to emergencies and strengthen self-help and mutual assistance capabilities • Prevention of workplace misconduct and violence: Ensure compliance with regulatory requirements and maintain a safe and secure work environment	14	339	By promoting employees' physical and mental well-being, ensuring adherence to regulatory requirements, and fostering a safe and friendly workplace, the company aims to enhance overall work quality.

ISO Management System Seed Personnel Development Plan

To strengthen departmental understanding and execution capabilities of ISO management systems, HDRE established a seed personnel development mechanism:

Item	Content	Effectiveness
Seed Personnel Quantity	Cultivated 39 system seed personnel across departments in 2024	Each department has dedicated personnel responsible for system operation
Development Method	• Management system identification activities briefing before expansion • Re-training when new seed personnel join or replace • Ensuring identification capabilities align with operations	Enhancing system operation quality and professional capabilities
Future Planning	• High-risk or opportunity items included in management plans • Climate change issues to be included in 2025 • Continuous PDCA operation and third-party auditing	Strengthening system management and climate risk response



Occupational Injury and Disease Prevention GRI 403-9 GRI 403-10

2024 Occupational Injury Performance

HDRE adheres to the core principle of "people first," committed to building safe, healthy and friendly work environments. In 2024, the company continued refining various occupational safety and health policies, successfully achieving the goal of zero occupational injuries.

HDRE 2024 Injury Data Table

To implement occupational safety and health policies and effectively create a "zero-accident" work environment, we formulate annual occupational safety and health management plans and regulations, regularly reviewing the implementation effectiveness of each plan item to ensure the completeness of occupational safety and health management measures. In addition to regularly updating digital monitoring equipment systems, the engineering department also strengthens hardware safety protection measures at project sites, making site safety maintenance more comprehensive.

The number of recorded occupational injuries in 2024 was 0. This year, the integrated zero-accident working hours for HD employees and contractors reached 438,538 hours.

HDRE 2024 occupational injury data				
	Employee Type	HD Employees	Contractors	Total
Headquarters	Injury Rate (IR) = (Lost work cases / Total work hours) × 200,000	0	0	0
	Occupational Disease Rate (ODR) = (Total occupational diseases / Total work hours) × 200,000	0	0	0
	Lost Day Rate (LDR) = (Lost work days / Total work hours) × 200,000	0	0	0
	Absentee Rate (AR) = (1) Sick leave + (2) Personal leave hours / Total hours × 100%	0	0	0
	Disabling Injury Frequency Rate (FR) = (Lost work cases × 10^6) / Total work hours	0	0	0
	Disabling Injury Severity Rate (SR) = (Lost work days × 10^6) / Total work hours	0	0	0
	Severe Occupational Injury Rate = (Severe occupational injuries / Total work hours) × 200,000	0	0	0
	Recordable Occupational Injury Rate = (2024 recorded occupational injuries / Total work hours) × 200,000	0	0	0

5.3.4 Contractor Safety and Health Management GRI 403-7 GRI 414-1 GRI 414-2

Contractor Social Assessment and Management Mechanism

HDRE has established "Supplier and Contractor Management Procedures" and "Contracting and Outsourcing Management Procedures" to build supplier occupational safety and health management systems, setting active and specific environmental safety and health standard requirements for contractors and related suppliers to ensure supply chain worker safety and health.

Management Stage	Specific Requirements	Certification Standards
Management System Certification	• ISO 45001 Occupational Safety and Health Management System • ISO 14001 Environmental Management System • Environmental safety and health management plan submission	• Obtain valid certification • Regularly update verification data • Management system remains valid
Personnel Qualification Control	• Safety and health education training completion • Professional licenses and technical qualifications • Labor insurance and group insurance	• Complete at least 6 hours of professional training • Possess relevant work licenses • 100% insurance proof
Work Safety Control	• Job Hazard Analysis (JHA) submission • Special operation safety permits • Emergency response plan establishment	• Regular JHA updates and maintenance • High-risk operation permit system • Response mechanism establishment and verification

Prevention and Mitigation of Occupational Safety and Health Negative Impacts GRI 403-7

Occupational Safety and Health Management in Business Relationships

According to GRI 403-7 requirements, HDRE actively prevents and mitigates occupational safety and health negative impacts directly related to operations, products or services through business relationships:

Contractor Entry Control Mechanism

Control Stage	Implementation Measures	2024 Implementation Results	Risk Mitigation Benefits
Pre-entry Preparation	• Contractor safety and health education training • Joint occupational hazard prevention notification • Work permit and ID card issuance	• Total training 1,716 hours • 100% completion of entry control • All personnel work permits issued	• Enhanced safety awareness • Unified safety standards • Strengthened identity verification
Operation Process Control	• Daily toolbox meeting implementation • Regular on-site safety inspections • Job Hazard Analysis (JHA) updates	• Coverage of 26,510 person-times • Zero major occupational accidents • 100% JHA submission	• Timely risk identification • Real-time safety reminders • Systematic risk control
Consultative Organization Operation	• Regular safety and health meeting convening • Cross-departmental coordination and communication mechanism • Clear on-site responsible person designation	• 11 consultative meetings held • Multi-departmental participation in coordination • Clear division of responsibilities	• Strengthened communication and coordination • Unified management standards • Enhanced execution efficiency

Special risk management project

Climate Change Health Risk Control	High-Risk Operation Safety Control
In response to potential health risks to workers from global warming and extreme weather: • Prevention Facilities: Site rest areas, drinking water and cooling supplies, first aid kits • Monitoring Mechanisms: Regular inspections, real-time construction group communications, third-party verification • Control Results: Completed high temperature management monitoring at sites in 2024, achieving zero heat exhaustion incidents	Establishing strict permit systems for hot work, confined spaces, elevated work, and lifting operations: • Permit System: Special operation safety permit applications, operation plan review mechanisms • Site Supervision: Dedicated supervision, safety equipment checks, work environment assessments • Risk Control: Pre-work safety confirmation, continuous process monitoring, post-work environment restoration

Supply Chain Social Impact Assessment and Management GRI 414-2

HDRE conducts social assessments of suppliers according to "Supplier and Contractor Management Procedures." All new suppliers must complete "Supplier Basic Data Evaluation Forms" and "Environmental Safety and Health Management Survey Questionnaires," assessing social standards including occupational safety and health, environmental management, and labor conditions. Existing suppliers are continuously monitored through regular evaluation mechanisms to ensure compliance with sustainable development requirements.

Implementation status of social impact assessment

Assessment Item	2024 Implementation Status	Identified Main Risks	Improvement Measures
Suppliers with social impact assessments conducted	23 new suppliers 53 existing suppliers	• Occupational safety and health management • Labor conditions and working hours • Workplace safety environment	• Strengthen training mechanisms • Regular inspection and guidance • Establish improvement tracking
Suppliers identified with significant negative impacts	3	• Some contractors' safety awareness needs strengthening • Environmental protection measures need continuous improvement	• Education and training enhancement • Professional guidance provision
Percentage of suppliers agreeing to improve	100% (all suppliers cooperate with improvements)	• Safety protection equipment configuration • Incomplete work procedure standards	• Consultative organization meetings • Toolbox meeting execution
Percentage of terminated relationships	0% (no termination cases)	No major risks requiring termination	Continuous monitoring and guidance

Implementation Results and Continuous Improvement Mechanism GRI 414-2

Identified Supplier Social Impacts and Improvement Actions

Risk Level	Identification Criteria	Main Impact Issues	Improvement Measures	Management
High Risk	Score < 61 points Continuous violations	• Improper workplace safety management • Insufficient labor rights protection • Environmental protection measure deficiencies	• Issue Corrective Action Request Forms • Professional guidance and education training • Enhanced on-site auditing	• **Complete improvement within 7 days** • Suspend transactions if necessary
Medium Risk	Score 61-79 points Occasional deficiencies	• Incomplete protective equipment use • Incomplete procedure execution • Management system improvements needed	• Improvement recommendation guidance • Regular tracking and review • Strengthen education training	• Continuous observation and control • Regular re-evaluation
Low Risk	Score ≥ 80 points Well-managed	• Continuous improvement opportunities • Best practice sharing	• Experience exchange and sharing • Excellent contractor recognition • Long-term partnership cultivation	• Priority procurement targets • Strategic partner development

Environmental Safety and Health Management Performance Overview

Management Aspect	Performance Indicators	2024 Performance	Future Goals
Education Training	• Contractor safety and health training hours • Training coverage rate • Required course completion rate	• Total 1,716 hours • 100% full coverage • 100% required training completion	• Exceed expected goals • Establish standardized training system • Strengthen safety awareness culture
Site Control	• Consultative organization meeting frequency • Job hazard analysis submission rate • Violation improvement completion rate	• 11 meetings held • Covered 26,510 person-times • 100% JHA submission • 100% improvement completion	• Achieve communication and coordination goals • Systematic risk control • Real-time improvement tracking
Risk Control	• Major occupational injury count • Climate health protection measures • Special operation safety control	• Zero major occupational injuries • Zero heat exhaustion incidents	• Achieve zero injury goals • Effective climate risk control • Establish prevention mechanisms
Certification Management	• Contractor ISO 45001 certification rate • Environmental safety and health assessment completion rate • Sustainability commitment signing rate	Continuous monitoring of certification validity • Establish standard assessment mechanisms • Strengthen sustainability commitments	• Continuous monitoring of certification validity • Establish standard assessment mechanisms • Strengthen sustainability commitments

Communication Mechanism and Grievance Handling

Communication Level	Performance Indicators	Operation Frequency	2024 Implementation Results	Handling Process
Daily Communication	• Toolbox meetings • Site safety inspections • Hazard notification mechanisms	• Daily execution • Irregular inspections • Real-time notifications	• Covered all workers • Timely risk point identification • Real-time safety reminders	• On-site immediate handling • Same-day recording and reporting • Next-day tracking confirmation
Site Control	• Consultative organization meetings • Cross-department coordination • Professional technical exchanges	• Regular meetings • Project needs • Quarterly exchanges	• 11 consultative meetings • Multi-department participation • Technical experience sharing	• Pre-meeting issue collection • In-meeting discussion and resolution • Post-meeting tracking implementation
Risk Control	• Project Management Division receives • Environmental Safety and Health Office investigates • Multiple grievance channels accepted	• Real-time receipt • Investigation within 3 days • Continuous tracking	• Complete handling mechanism established • Contractor + employee grievances = 0 • 100% case closure	Real-time receipt → 3-day investigation → 7-day improvement → 14-day verification

Future Enhancement Directions

HDRE will continue deepening supply chain sustainability management, using digital tools to improve management efficiency and strengthen risk early warning mechanisms. In the short term, we will expand supplier factory evaluation scope and establish more comprehensive climate risk control mechanisms; in the medium to long term, we plan to establish supply chain carbon footprint tracking mechanisms, promote circular economy cooperation models, strengthen human rights due diligence systems, and achieve comprehensive supply chain sustainable development goals.

5.3.5 Health Promotion and Employee Well-being GRI 403 GRI 401 GRI 405

HDRE firmly believes employee health is inseparable from sustainable corporate development. We have established comprehensive health promotion plans that enhance employee health management quality and workplace happiness through health care, education training, and medical service support strategies.

In 2024, we continued to increase investment in employee health care, implementing environmental safety and health management plan items: 2024 implementation costs totaled NT$2,248,100, up 97% from the previous year; on-site health service costs reached NT$227,990, up 20.8% from the previous year, demonstrating the company's emphasis on and commitment to employee health and safety management.

Health Promotion Implementation Results GRI 403-6

Nurse and Psychologist Care Activities	Employee Health Examinations	Maternal Health Care
58 sessions / 225 nurse visits / 2 psychologist visits	309 people / NT$927,000	15 people

Musculoskeletal Self-Assessment Survey	Management-Level Workplace Violence Self-Check	Middle-Aged and Elderly Health Care and Interviews	AED Education Training
261 people	116 forms	10 people	45 people

Occupational Health Service System

GRI 403-1 GRI 403-3

Four Major Health Protection Plans

HDRE establishes four major health protection plans according to occupational safety and health regulations, comprehensively caring for employees' workplace safety and health:

Four Major Health Protection Plans

Ergonomic Hazard Prevention Plan

Implementation
Musculoskeletal surveys for employees with over one year of service
2024 Results
Completed surveys for 216 employees, 19 high-risk employees received nurse interviews and health education guidance, 50 massage activities with 550 participants

Maternal Health Protection Plan

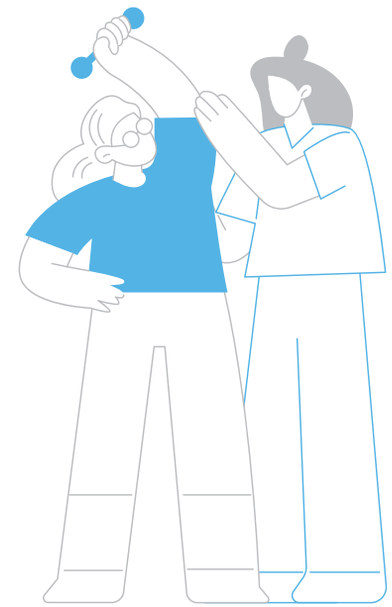
mplementation
Health risk assessments for pregnant and postpartum female employees
2024 Results
Conducted 15 maternal health protection assessments, completed lactation room setup in new office buildings (Asia-Pacific Cloud, Hongpu Building), providing comfortable and safe breastfeeding environments

Abnormal Workload Disease Prevention Plan

Implementation
Identify high-risk groups through worker fatigue scales and provide on-site health services
2024 Results
Surveyed 216 employees, identified 12 high-risk employees, provided on-site health services with nurses, doctors and counselors providing health education and interviews for 227 person-times

Workplace Violence Prevention Plan

Implementation
Establish mechanisms to prevent workplace violence and illegal violations
2024 Results
Completed hazard identification and risk assessment for 28 departments, 116 management self-assessment forms completed, senior management signed written commitments to prevent workplace violence



Occupational Health Services and Workplace Happiness Promotion

GRI 403-3 GRI 403-6 GRI 405 GRI 406

The company is committed to providing employees with dignified and safe work environments, implementing employment diversity, fair compensation and promotion opportunities, ensuring employees are not discriminated against or harassed based on race, gender, sexual orientation, religious beliefs, age, political orientation, birthplace, or physical/mental disabilities.

Diverse Workplace Inclusion

Specific Measures

- Employment opportunities for persons with disabilities
- Gender-friendly workplace establishment
- Sexual harassment prevention measures promotion

2024 Implementation Results

- Employed 1 colleague with disabilities
- Zero sexual harassment cases
- Well-functioning grievance mechanism

Maternal Health Protection

Specific Measures

- Health risk assessment
- Lactation room setup
- Nurse interview assessment

2024 Implementation Results

- Conducted 15 maternal health assessments
- Completed lactation room setup in new offices
- Provided safe breastfeeding environment

Employee Psychological Counseling Services

Specific Measures

- Worker fatigue scale assessment
- Nurse/psychologist care interviews
- Middle-aged and elderly worker fitness assessment

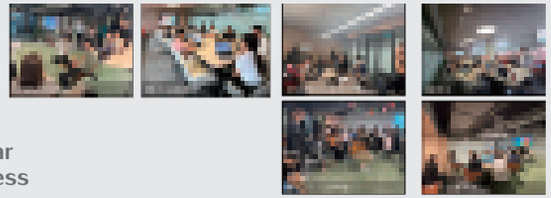
2024 Implementation Results

- Held 58 care activity sessions
- Served 227 person-times
- 10 middle-aged and elderly fitness assessments

Health Promotion Seminars

Specific Measures

- Metabolic syndrome management
- Stress and health
- Nutrition and cancer prevention



2024 Implementation Results

- 251 participants throughout the year
- Enhanced employee health awareness

Physical Examination

Specific Measures

- NT$3,000 subsidy per person
- Added cardiac function and alcoholic hepatitis tests

2024 Implementation Results

- 309 people completed examinations
- Total subsidy amount NT$927,000

Occupational Physician On-site Services

Specific Measures

- Nurse 6 times per month
- Professional physician 6 times per year

2024 Implementation Results

- Provided health check report analysis
- Health consultation and follow-up services

AED Emergency Equipment Setup

Specific Measures

- AED setup in each office
- First aid education training

2024 Implementation Results

- Set up 4 AED locations
- Trained 45 people in first aid skills

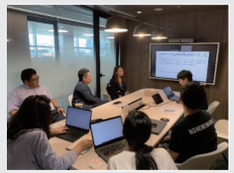
Employee Care and Communication

Specific Measures

- Regular labor-management meetings
- Multiple communication and grievance channel setup

2024 Implementation Results

- Held 8 labor-management meetings in 2024
- Workplace violence and sexual harassment grievance channel setup and education training



Employee Benefits

Specific Measures

- Year-end bonus/employee compensation distribution
- Regular employee activities

2024 Implementation Results

- Distributed year-end bonuses/employee compensation
- Employee travel/year-end party and other company activities
- Employee Welfare Committee provides diverse benefits

Health Risk Control Mechanisms GRI 403-2

Risk and Opportunity Issue Control Measures Table

High Risk

Health Risk Issue	Control Measures	Actual Results
Occupational Injury Investigation	• Consider risk factors in pre-site planning • Contractor operation hazard notification and warning • Install preventive protection devices in advance	1. Zero occupational injuries occurred in the company in 2024 2. Consider risk factors during pre-site planning, incorporating significant risks into assessment 3. Contractor safety management covered 26,510 personnel

Medium Risk

Health Risk Issue	Control Measures	Actual Results
Office Work Environment and Drinking Water Monitoring	• Office carbon dioxide and illumination management • Commission qualified agencies for drinking water monitoring • mprovement and tracking of non-compliant items	1. Ensure monitoring standards comply with regulations 2. Provide adequate lighting and comfortable work environment 3. Expand drinking water monitoring scope, proactively increase monitoring frequency
Maternal Health Protection	• Include in management plan implementation • Conduct maternal health risk assessment • Setup lactation rooms	1. Conducted 15 maternal health protection interview guidance sessions 2. Completed hazard assessment and control, risk classification management 3. Completed lactation room setup in new office buildings
Ergonomic Hazard Prevention	• Formulate related management procedures • Conduct ergonomic hazard surveys • Establish appropriate improvement tools	1. Completed ergonomic surveys for 216 colleagues 2. Included in 2025 on-site nurse interview items 3. Visually impaired massage therapists provide monthly massage services

Medium Risk

Health Risk Issue	Control Measures	Actual Results
Abnormal Workload-Induced Disease Prevention	• Conduct worker fatigue scale surveys • Arrange psychological counselor care interviews • Plan related seminars and psychological counseling resources	1. Surveyed 216 colleagues, 12 high-risk individuals received care 2. Arranged nurse health education guidance and interviews 3. Assisted colleagues with stress management and emotional adjustment
Illegal Violation Prevention	• Formulate related management procedures • Develop written workplace violence prevention statements • Conduct hazard identification and risk assessment	1. Completed risk assessment for 28 departments, results were acceptable risk 2. Senior management signed workplace violence prevention commitments and announced 3. Management level completed 116 self-assessment forms

Opportunity

Health Risk Issue	Control Measures	Actual Results
Environmental Safety and Health Management System Implementation and Verification	• Continuous management system verification and improvement • Personnel capability requirements and supervision measurement control • Record management and external agency verification	1. Integrated ISO 45001, ISO 9001, and ISO 14001 2. Produced 1 manual, 21 procedure documents, and 26 regulations/plans related to environmental safety and quality 3. Completed three ISO certifications in August-September 2024

Government Certifications and Awards

- Excellence Award: Received "2024 Corporate Proactive Disclosure of Occupational Health and Safety Indicators" Excellence Award
- Participation Certificate: "2024 National Workplace Safety and Health Week Activities Implementation Plan" Participation Certificate

Future Outlook and Improvement Plans

HDRE continues to aim for "Healthy Workplace, Sustainable Operations," deepening employee health promotion and workplace safety management. In the future, we will adhere to the principle of prevention over treatment, strengthen health risk identification and early intervention mechanisms, integrate various health service resources through digital health management platforms, and improve service efficiency and convenience.

For workplace safety, we will continue refining ISO management system operations, deepen contractor safety management collaboration mechanisms, expand first aid skill training coverage, and build more comprehensive emergency response capabilities. We are also committed to creating a more inclusive and diverse workplace environment, ensuring every employee can realize their potential in a safe, healthy, and equal environment through continuous education training and policy optimization.

The company will continue monitoring regulatory trends and international best practices, timely adjusting health promotion strategies, and through regular effectiveness assessments and stakeholder feedback, continuously optimize various health care measures to achieve win-win goals of employee health and sustainable corporate.

06

Sustainable Feedback and Mutual Prosperity

CH6 Sustainable Feedback and Mutual Prosperity

Material Topic: Local Community, Social Participation and Public Welfare

Core Vision and Commitment

Adhering to the philosophy of "taking from society, giving back to society," we implement social care through knowledge sharing and social participation. HDRE upholds the brand spirit of "Fostering shared sustainability, practicing care, and community-rooted education," . focusing on four major issues: "energy education, public welfare contribution, employee care, and ecological protection." We align with the United Nations Sustainable Development Goals (SDGs) and implement multiple ESG activities and policies, committed to creating a society of co-creation and mutual prosperity.

2024 Results and Performance

01 Total investment in social welfare:**NT$17,916,391, representing a 144% growth compared to 2023,** covering diverse aspects including education, environment, health, culture, and sports

02 **Beautiful Taiwan 3D Movie Vehicle Tour:** Invested NT$1,440,000, conducting 58 touring screenings, **reaching 5,913 students,** enhancing environmental and climate change education effectiveness in remote areas

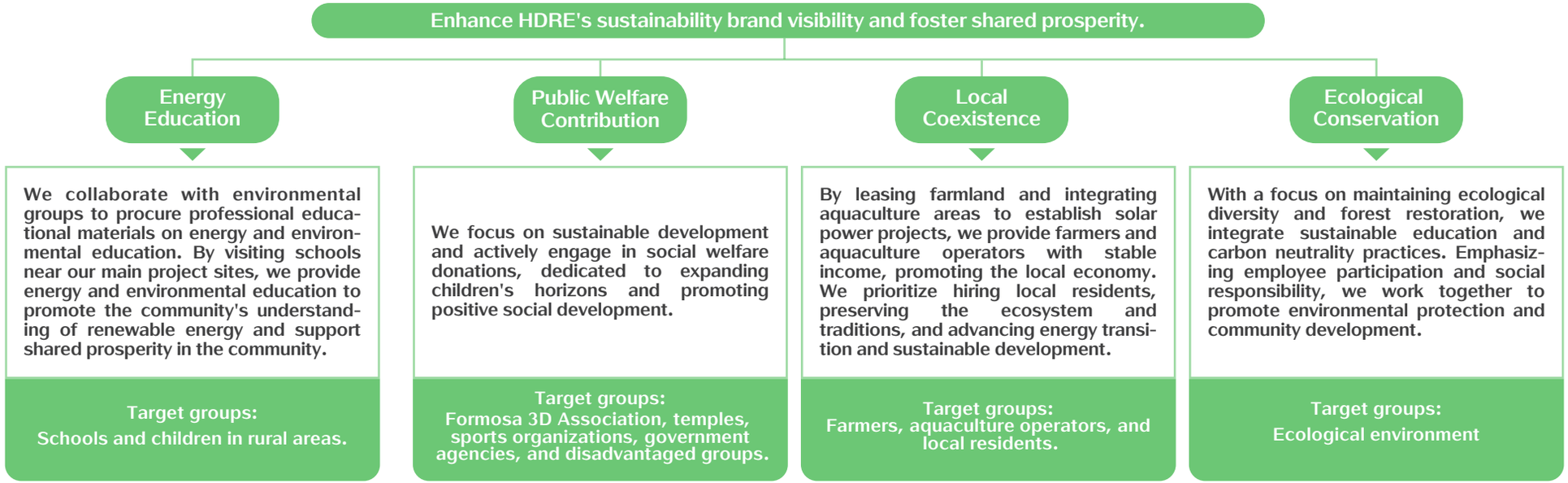
03 **Trees for Ball Project:** Invested NT$144,000, **planting 96 native trees** and promoting football education in remote areas, innovatively combining environmental conservation with sports development, providing secondary employment opportunities

04 **Yuli Forest Restoration Project:** Invested NT$1,500,000, **planting 1,500 native tree** between 2023-2024, establishing natural carbon sinks and creating local green employment opportunities

05 **Remote Area Health Promotion Program:** Invested NT$200,000, collaborating with Digital Humanitarian Association to **conduct 158 remote health courses,** cumulatively serving 30,473 participants

Social Co-prosperity Development Blueprint

HDRE's vision is to "Enhance sustainable brand visibility and create sustainable mutual prosperity," implementing social responsibility through four major dimensions:



2024 Social Welfare Donations

HDRE demonstrates its emphasis and support for Taiwan's cultural development through diversified social welfare investments, with cultural arts promotion accounting for the largest proportion. Total social welfare investment in 2024 reached NT$17,916,391, representing a 144% growth compared to 2023.

Donation Category	Total Investment (NT$)	Major Items
Cultural Arts Promotion	8,744,563	Beautiful Taiwan 3D Association, Tainan City Art Museum, ShangXuan Ensemble and other cultural education promotion
Local Community & Religious Support	4,908,000	City God Temple, Wu Sheng Temple and other local temple development
Environmental and Ecological Protection	1,926,857	Green Charity Foundation forest restoration, Trees for Ball project, community environmental improvement, etc.
Sports Promotion	1,630,000	Olympic athlete sponsorship, Football Association, sports event support
Community Education Promotion	8,744,563	Fo Guang Shan Temple, Chinese Culture University, Heshun Elementary School and other educational institutions

6.1 Local Community Material Topic: Local Community

HD Renewable engages local communities across economic, environmental, social, and cultural dimensions, fostering sustainable shared growth.

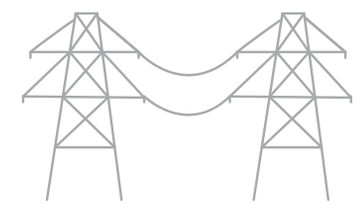
Material Topic: Local Community

Actual and Potential Impacts on Economy, Environment, and People	Commitments and Results	Goals
Positive Impacts (Opportunities)	Company Policies and Commitments to Local Communities	Short-term Goals (1-2 years)
• **Economic Development Promotion** Project development integrates local community ecology and environment, creating local employment opportunities and retaining young populations, promoting fishery-electricity symbiosis models to enhance traditional industry value-added • **Environmental and Ecological Conservation** Establishing a 6-hectare ecological protection zone at the Qigu project site to safeguard endangered bird species habitat including Black-faced Spoonbills, ensuring development and ecological co-prosperity through environmental and social assessments • **Community Participation Enhancement** Through environmental and social assessments and community communication mechanisms, enhancing residents' participation in decision-making, establishing long-term cooperative relationships between enterprises and communities	• **Economic Co-prosperity Strategy** Prioritizing local employment and procurement of local materials to create substantial economic benefits, establishing community feedback mechanisms to invest revenue portions in public infrastructure • **Environmental Sustainability Management** Implementing environmental impact assessments and environmental and social assessments to ensure development does not damage ecosystems, introducing water resource recycling management and chemical-free maintenance technologies • **Social Responsibility Practice** Respecting community residents' right to know and participate, implementing public briefings and communication coordination, establishing human rights policies to protect local and supply chain workers' rights	• Actively promote internal corporate sustainability projects (material reuse, etc.) • Add 1-4 new remote area health promotion cooperation sites by 2025 • Strengthen pre-development community communication mechanisms for project sites, enhance resident participation and acceptance, continue promoting fishery-electricity symbiosis models to create local economic benefits

Actual and Potential Impacts on Economy, Environment, and People	Commitments and Results	Goals
Negative Impacts (Risks)	2024 Results	Medium to Long-term Goals (3-5 years)
• **Industrial Transformation Impact** Conversion of traditional fishery and agricultural land may affect original production models and community livelihoods, rising land prices may squeeze operating space for small economic entities • **Environmental and Ecological Risks** Failure to properly assess before development may affect wetland ecosystems and flora and fauna habitats, construction processes may generate noise, lighting, and other ecological disturbances • **Social Acceptance Challenges** Lack of prior communication may trigger resident concerns affecting corporate social image, insufficient participation in decision-making may lead to distrust and operational obstacles	• **Project Development Communication** Conducting Environmental and Social Impact Assessment (ESIA) for each project, ensuring project site selection and design incorporate residents' opinions • **Ecological Conservation Investment** Yuli forest restoration invested NT$1.5 million planting 1,500 native trees, Tainan salt marsh wetland restoration invested NT$200,000 • **Community Infrastructure** Promoting fishery-electricity symbiosis at Qigu project site, assisting in improving fishermen's income through smart aquaculture • **Local Talent Development** Collaborating with academic institutions to offer photovoltaic and energy storage talent training programs, enhancing local employment competitiveness	• Continue promoting energy education, public welfare contributions, local symbiosis and ecological protection related actions • Deepen cooperation with environmental organizations, promote energy education in schools near project sites • Establish standardized community participation processes, deepen cooperation with environmental organizations to promote ecological protection, achieving a triple win situation for environmental ecology, fishermen's livelihoods, and green energy generation

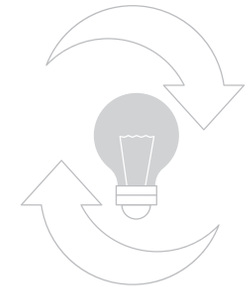
I. Economic Development and Local Co-prosperity

Implementation Item	Resources Invested	Results	Benefits
Fishery-Electricity Symbiosis Model	Smart aquaculture technology introduction	Tainan Qigu project site operation	Enhanced fishermen's income, promoted traditional industry upgrading
Agricultural Contract Support	Contract image gift box production	Providing 250 contract gift boxes annually	Supporting Ministry of Agriculture policies, supporting seed preservation, friendly farming and organic cultivation
Local Talent Development	Collaboration with academic institutions	Photovoltaic and energy storage talent training programs	Enhanced local employment competitiveness



II. Environmental Protection and Ecological Sustainability

Protection Item	Investment Amount	Specific Actions	Results and Benefits
Ecological Protection Zone Establishment	200,000	Establishing 6-hectare protection zone at Qigu project site	Safeguarding endangered bird species habitat safety including Black-faced Spoonbills
Yuli Forest Restoration Plan	1,500,000	Planting 1,500 native tree species	Enhancing carbon sequestration capacity, establishing environmental education venues
Tainan Wetland Restoration Action	200,000	Participating in Tainan salt marsh wetland restoration	Maintaining wetland carbon sequestration functions and biodiversity



• Highlight Project: Yuli Forest Restoration Plan

HDRE collaborates with the Green Charity Foundation to promote the Yuli T-EARTH Forest Restoration Project, restoring over 12 hectares of forest. HDRE invested NT$1.5 million from 2023 to 2024 to plant 1,500 native trees, estimated to sequester approximately 27,903 tons of CO_2e over 10 years, with an average investment cost of NT$1,000 per tree.

This project not only establishes natural carbon sinks as a long-term climate action for the company but also integrates local youth participation and returning farmers' development initiatives, collaborating with ten Indigenous community members to create local green employment opportunities. By restoring native forest characteristics, the project provides environmental education and experiential learning spaces, advancing the concept of shared community prosperity.

III. Social Welfare and Educational Promotion

Category	Project Item	Target	Specific Actions	Results and Benefits
Health Care Services	Remote Area Health Promotion Program	Elderly populations in remote areas of Chengong Township, Taitung County and Yizhu Township, Chiayi County	Invested NT$200,000, collaborating with Digital Humanitarian Association to conduct 158 courses	Cumulatively served 30,473 participants, Social Return on Investment (SROI) of 1:8.07
Local Education Foundation	Education at Schools Near Project Sites	Students at nearby elementary schools	10 courses, 300 students participated	Strengthened local community understanding and support for green energy development
	Heshun Elementary School Walking Program	Heshun Elementary School, Chiayi County	Invested NT$100,000, 18-day 360-kilometer challenge	Deepened local culture and environmental education outcomes
	Project Site Environmental Education	Chang Jung University, Kunsheng Elementary School, etc.	Multiple visitation and guided tour activities	Promoted industry-academia cooperation and community environmental education
	Tree Nurture Ball Project	NTD 144,000	Plant 96 native trees and promote football education in rural areas.	Integrating environmental protection and sports education, the project creates local green employment opportunities.

Heshun Elementary School walking-to-school program

• Highlight Project: Trees for Ball Project

HDRE collaborates with the Green Hope Spring Foundation to promote the Trees for Ball Project, which links elementary school football training in Hualien with campus forest restoration efforts. For every goal scored by young players in official matches, a tree is planted on their school grounds, symbolizing the growth of young athletes alongside the flourishing of nature.

The project planted a total of 96 native tree species, including 25 Taiwan Incense-Cedar, 48 Formosan Ebony, and 23 Taiwan Yellow Cypress, and donated 168 practice footballs, representing a total investment of NT$144,000. This initiative provides tangible support for both local sports development and ecological restoration.

Originally planned to serve only two schools, the project expanded its support to include all schools across Hualien County following campus forest damage caused by the April 3 earthquake and subsequent typhoons. The project selected high-value native tree species to restore green cover, while fallen leaves and branches are repurposed by community residents into cultural and creative products, generating secondary employment and local income. Thirty percent of the revenue is returned to schools to further support football training and development.

This project embodies HDRE's corporate spirit of "sharing" by connecting resources, co-creating value, and helping local communities develop sustainable, circular, and resilient growth models.

• Highlight Project: Remote Area Health Promotion Program

HDRE collaborates with the Digital Humanitarian Association to promote the Remote Area Health Promotion Program, which leverages telemedicine technology to connect community centers in Yizhu Township, Chiayi County, and Chenggong Township, Taitung County, to address the healthcare accessibility challenges faced by aging rural communities. Through live interactive sessions supported by local caregivers, the program strengthens elderly health literacy and self-care abilities, deepening HDRE's engagement with local communities where project sites are located and embodying the principle of shared local prosperity.

HDRE invested NT$200,000 in this program, conducting 158 professional health courses covering over 18 fields of medicine and health, including chronic disease prevention, musculoskeletal training, cognitive health, nutrition, and stress management across six major themes. These courses were delivered by qualified medical instructors and cumulatively served 30,473 participants. According to an assessment based on the international Social Return on Investment (SROI) methodology, the program achieved an SROI ratio of 1:8.07, meaning that every NT$1 invested generated NT$8.07 in social value.

Following the implementation of courses and consultations, the program effectively enhanced local elderly health autonomy, reduced acute medical visits and chronic disease risks, and further alleviated the burden of family caregiving and social costs. The program adopts a low-cost, high-impact approach to help remote areas establish replicable primary healthcare networks, thereby strengthening community health resilience.

IV. Cultural Heritage and Community Integration

Retention of religious beliefs

HDRE values local religious and cultural traditions, investing NT$3,652,000 in 2024 to support local temple development:

Category	Project Name	Specific Results	Project Significance	Photos
Supporting Local Religious Heritage	Pingtung County Chaozhou County City God Charity Association	3,000,000	Supporting local charitable activities	
	Long Fo Temple Management Committee	220,000	Maintaining local faith center operations	
	Chaozhou City God Temple Management Committee	112,000	Supporting traditional cultural preservation	
	Qianziliao Wu Sheng Temple Management Committee	20,000	Caring for small local temple development	
Community Participation Activities	Employee Ecological Education Tour	37 colleagues participated	Employees gaining firsthand understanding of fishery-electricity symbiosis model, deepening awareness of local community sustainable development	Employees gained firsthand experience of the fishery-solar integrated model, deepening their understanding of local community sustainability. 
	Hosting Foreign Delegations	Hosted 8 foreign delegations, reaching 57 participants	Hosted the delegation from Romania's Ministry of Agriculture to visit the Nichi-Yun project site, showcasing local community sustainable development achievements; also received delegations from the Philippines, Indonesia, Japan, and Canada.	 

6.2 Social Participation and Public Welfare

Material Topic: Social Participation and Public Welfare

HDRE upholds the philosophy of "taking from society and giving back to society," and embodies the corporate spirit of "Creating Sustainable Co-prosperity, Practicing Care, and Rooted Education." The company focuses on four key areas: energy education, public welfare, employee well-being, and ecological protection, aligning with the United Nations Sustainable Development Goals (SDGs) and is committed to fostering a society of co-creation and shared prosperity.

Material Topic: Social Participation and Public Welfare

Actual and Potential Impacts on Economy, Environment, and People	Commitments and Results	Goals
Positive Impacts (Opportunities)	**Company Policies and Commitments to Social Participation and Public Welfare**	**Short-term Goals (1-2 years)**
• **Brand Image Enhancement** Participating in social welfare helps enhance brand image, increasing stakeholder trust and favorability, strengthening corporate social influence • **Educational Resource Investment** Through energy education and environmental education promotion, enhancing rural students' environmental literacy, cultivating future green citizens' awareness • **Health Care Promotion** Investing in remote area health promotion programs, improving unequal resource distribution issues, enhancing disadvantaged groups' health and welfare	• **Sustainable Education Promotion** Promoting basic energy and environmental education, enhancing society's understanding and participation in green energy and climate change issues • **Diverse Group Care** Through cultural arts promotion and diverse group care, deepening positive connections between enterprises and society, reducing conflict risks • **Health Equity Promotion** Investing in remote area health promotion and elderly care actions, reducing urban-rural health resource gaps, enhancing social welfare	• Continue promoting Beautiful Taiwan 3D Movie Vehicle rural tours, actively promote internal corporate sustainability projects (material reuse, etc.), increase ESG budget flexible utilization
Negative Impacts (Risks)	**2024 Results**	**Medium to Long-term Goals (3-5 years)**
• **Resource Allocation Imbalance** If public welfare investment does not focus on core issues, it may cause resource dispersion and ineffective benefits, affecting sustainable management strategy execution • **Expectation Management Challenges** If public welfare activities are not continuously promoted, it may cause beneficiary expectation gaps, affecting corporate credibility • **Effectiveness Measurement Difficulties** Social welfare effectiveness is difficult to quantify and evaluate, potentially affecting investment decisions and resource allocation accuracySocial Acceptance Challenges: Lack of prior communication may trigger resident concerns affecting corporate social image, insufficient participation in decision-making may lead to distrust and operational obstacles	• **Total Investment Amount** NT$17,916,391, cumulatively reaching over 38,000 participants • **Educational Promotion** Beautiful Taiwan 3D Movie Vehicle 58 sessions reaching 5,913 participants, elementary school energy education courses 10 sessions with approximately 300 students participating • **Health Promotion** Digital Humanitarian remote health courses 158 sessions serving 30,473 participants, Social Return on Investment (SROI) of 1:8.07 • **Cultural and Sports Support** Tainan City Art Museum sponsorship NT$800,000, Lin Yu-Ting and other athlete sponsorships NT$1,100,000, music performance support NT$200,000 • **Disadvantaged Care** Guangming Temple winter warmth campaign NT$300,000, second-hand material matching platform NT$83,000, promoting social inclusion and resource recycling	• Establish systematic social welfare investment mechanisms, in addition to corporate funding investment, encourage employee participation through action, deepening corporate social responsibility practice and influence

Cultural Development Support

In response to Tainan's 400th anniversary celebration, we exclusively sponsored the Tainan City Art Museum with a sponsorship amount of NT$800,000, and provided exhibition tickets to local partners including environmental organizations and schools implementing energy education, practicing cultural ESG sustainability goals.

HDRE has long focused on Taiwan's cultural and artistic development, investing over NT$3.44 million in 2024 to support cultural arts promotion, promoting art popularization and social inclusion through diverse cultural participation methods.

Project	Investment Amount	Specific Actions	Results and Benefits	Sponsored the special exhibition at Tainan Art Museum
Tainan City Art Museum Special Exhibition Sponsorship	NT$ 800,000	Exclusive sponsorship celebrating Tainan's 400th anniversary	Provided exhibition tickets to local partners, practicing cultural ESG goals	
Music Arts Support	NT$ 200,000	Supporting ShangXuan Ensemble	Provided 200 tickets to promote art popularization and social inclusion	
Beautiful Taiwan 3D Association Collaboration	NT$ 2,440,000	Supporting Taiwan's only 3D mobile movie vehicle	58 tours reaching 5,913 participants, screening environmental education films including "Taiwan Super Hero" series	

Educational and Cultural Promotion

HDRE leverages its professional expertise and technological capabilities as a foundation to transform renewable energy knowledge into shared social learning resources, while strengthening positive connections between business and society through the promotion of culture and the arts. In 2024, HDRE conducted 68 educational and cultural activities, which reached 6,213 participants, covering a wide range of topics such as energy education, environmental education, and cultural enrichment.

Formosa 3D Movie Vehicle Cultural Education Program

The Formosa 3D Movie Vehicle Program embodies HDRE’s core philosophy — “Smarter Energy, Accessible Green” — by providing a stable renewable power system for Taiwan’s only 3D mobile movie vehicle, addressing the fundamental issue of unstable power supply in remote areas and achieving a seamless integration of corporate technical expertise with the promotion of cultural and educational development.

The program employs innovative 3D film technology to deepen students’ understanding of nature, ecology, and climate change, effectively enhancing the impact of environmental education in remote areas. Through the mobility of the movie vehicle, high-quality environmental education resources are brought directly to rural schools, overcoming geographical barriers and enabling more students to engage with environmental topics, while reinforcing HDRE’s role in educational public welfare and demonstrating its long-term commitment to nurturing the next generation’s environmental awareness.

2024 Implementation Results

Performance Indicator	Implementation Results	Benefit Description
Investment Amount	NT$ 1,440,000	HDRE's largest cultural education subsidy project
Tour Sessions	58 sessions	Covering remote schools nationwide
Participants Reached	5,913 people	Primarily elementary school students
Technical Integration	Solar + Energy Storage System	Demonstrating practical green energy applications, implementing small microgrids
Film Content	"Taiwan Super Hero" series and other environmental education films	Balancing environmental education with humanistic care
Educational Function	Green Energy Classroom	Functioning as a mobile museum, combining education with entertainment

Taiwan Superman movie cover image

Taoyuan Nanshi Elementary School

Yunlin Citong Elementary School

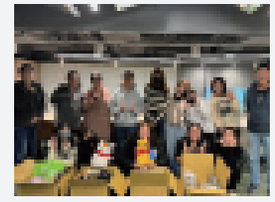
Energy Education Taking Root

Type	Project	Implementation Actions	Benefits Description	Photo
Elementary School Energy Course Promotion	HDRE employee lectures	Conducting energy and sustainability education courses for students at schools near project sites, with over 300 students participating.	Fostering understanding and support for green energy development from local communities while nurturing the next generation's sustainable awareness.	Photo of HDRE employees introducing renewable energy principles to students. 
Walking Taiwan Education Support	Contract farming gift box production	Every year we provide 250 contract farming gift boxes.	Supporting the Ministry of Agriculture's policies, supporting seed preservation, friendly farming, and organic cultivation.	

Sports Promotion

Type	Investment Amount	Specific Actions	Results and Benefits
Olympic Athlete Sponsorship	NT$ 1,100,000	Supporting Olympic boxing athlete Lin Yu-Ting and table tennis athlete training and international competition.	Lin Yu-Ting achieved excellent results winning Olympic gold medal, demonstrating corporate support for sports spirit and international exchange determination. 
Grassroots Sports Development	NT$ 530,000	Supporting Taipei City Metropolitan Vitality Football Association and Penghu County Sports Association.	romoting national sports and grassroots sports events in offshore islands, promoting sports equity and community energy.  

Vulnerable Group Care

Type	Investment Amount	Specific Actions	Results and Benefits	
Winter Warmth Campaign	NT$ 300,000	Guangming Temple winter warmth campaign	Donating supplies and consolation money to disadvantaged families, conveying social warmth	Successfully facilitated colleagues' donations of second-hand items to social welfare organizations in need, promoting sustainable living practices.
Old Material Circulation Action	NT$ 82,857	Participating in GiveCircle donation platform	Encouraging colleagues to donate reusable idle items at home, promoting resource recycling and waste reduction, implementing sustainable living practices	

Sustainability Newsletter

HDRE continued to promote the "Sustainability Newsletter Project" in 2024, communicating with all employees through internal periodic formats, conveying the latest global and local sustainability issues. Content covers global major environmental and climate events, sustainability and energy-related regulations, human rights issue developments, biodiversity conservation trends, and major disaster response, helping employees establish a macro sustainability perspective, promoting cross-departmental common language, and strengthening the organization's resilience and collective decision-making quality when facing future risks and opportunities.

Future Outlook and Continuous Commitment

HDRE will continue to deepen its brand commitment to “Sustainable Feedback and Mutual Prosperity” by establishing systematic mechanisms for social-welfare investment. In addition to corporate financial contributions, we actively encourage employees to participate through hands-on action, strengthening the practice and influence of corporate social responsibility.

Looking ahead, we will remain focused on the needs of local communities, enhance collaboration with environmental organizations, promote energy education in schools near our project sites, and establish standardized community-engagement processes. Through these initiatives, HDRE seeks to achieve a three-way win for environmental ecology, fishermen’ s livelihoods, and green-energy generation—realizing the vision of sustainable co-development between enterprises and society.

Appendix

Appendix 1: GRI 2021 Content Index

GRI Statement

GRI Standards Statement of Use	This report was prepared with reference to the GRI Standards. The scope of the information and data covers the period from January 1, 2024, to December 31, 2024
GRI 1 used	GRI 1：Foundation 2021
Applicable GRI Sector Standard(s)	No applicable sector standards are currently available

GRI 2: General Disclosures 2021

Category	Indexes	Disclosure Requirement	Chapters/Explanation	Page
The organization and its reporting practices	GRI 2-1	Organizational details	1.1 About HD Renewable Energy (HDRE)	9
	GRI 2-2	Entities included in the organization’ s sustainability reporting	About this Report	3
	GRI 2-3	Reporting period, frequency and contact point	About this Report	3
	GRI 2-4	Restatements of information	No restatements of information within 2024.	-
	GRI2-5	External assurance	Appendix 5. Independent Third Party Assurance Statement	229
Activities and workers	GRI 2-6	Activities, value chain and other business relationships	1.1.2 Industry Value Chain	22
	GRI 2-7	Employees	5.1.1 Employee Overview	166、167
	GRI 2-8	Workers who are not employees	5.1.1 Employee Overview	166
Governance	GRI2-9	Governance structure and composition	2.1.1 Governance Structure 2.1.3 Sustainable Development	45、51
	GRI 2-10	Nomination and selection of the highest governance body	2.1.2 Board of Directors	47
	GRI 2-11	Chair of the highest governance body	2.1.2 Board of Directors	47

Category	Indexes	Disclosure Requirement	Chapters/Explanation	Page
Governance	GRI 2-12	Role of the highest governance body in overseeing the management of impacts	2.5.1 Risk Management Mechanism	65
	GRI 2-13	Delegation of responsibility for managing impacts	2.4.1 Business Integrity	65
	GRI 2-14	Role of the highest governance body in sustainability reporting	About this Report	3
	GRI 2-15	Conflicts of interest	2.1.2 Board of Directors	47
	GRI 2-16	Communication of critical concerns	2.5.1 Risk Management Mechanism	65
	GRI 2-17	Collective knowledge of the highest governance body	2.1.2 Board of Directors	47
	GRI 2-18	Evaluation of the performance of the highest governance body	2.1.2 Board of Directors	47
	GRI 2-19	Remuneration policies	2.1.2 Board of Directors. Refer to the annual report for detailed information: "Remuneration of Directors, Supervisors, President, and Executive Vice Presidents in the most recent fiscal year."	47
	GRI 2-20	Process to determine remuneration	2.1.2 Board of Directors	48、50
	GRI 2-21	Annual total compensation ratio	5.1.2 Compensation, Benefits, and Employee Well-being	171
Strategy, policies and practices	GRI 2-22	Statement on sustainable development strategy	Message from the management	6
	GRI 2-23	Policy commitments	2.1.3 Sustainable Development 5.1.3 Human Rights and Communication	51、175
	GRI 2-24	Embedding policy commitments	Refer to the material topics and strategic objectives in the relevant chapters	-
	GRI 2-25	Processes to remediate negative impacts	Refer to the material topics and strategic objectives in the relevant chapters	-
	GRI 2-26	Mechanisms for seeking advice and raising concerns	2.4.1 Business Integrity	62
	GRI 2-27	Compliance with laws and regulations	2.4.2 Legal Compliance	63
	GRI 2-28	Membership associations	2.3.1 Participation in Associations	57
Stakeholder engagement	GRI 2-29	Approach to stakeholder engagement	1.2.2 Stakeholder Engagement and Outcomes	25
	GRI 2-30	Collective bargaining agreements	No labor union has been established, and no employees are covered by collective bargaining agreements.	-

GRI 3: Material Topics Disclosure 2021

Indexes	Disclosure Requirement	Chapters/Explanation	Page
GRI 3-1	Process to determine material topics	1.3.1 Material Process Analysis	29
GRI 3-2	List of material topics	1.3.2 Material Topics Analysis and Matrix	30
GRI 3-3	Management of material topics	Refer to the material topics and strategic objectives in the relevant chapters	-

GRI-Specific Topics

Category	Indexes	Disclosure Requirement	Chapters/Explanation	Corresponding to material topics	Page
Economic	GRI 201：Economic Performance	201-1 Direct economic value generated and distributed	2.2.2 Financial Performance	Corporate governance	55
		201-2 Financial implications and other risks and opportunities due to climate change	4.1.2 Climate Risk and Opportunity Identification	-	126
		201-4 Financial assistance received from government	2.2.2 Financial Performance	-	55
	GRI 204: Procurement Practices	204-1 Proportion of spending on local suppliers	3.3.2 Source Tracking Management and Procurement Policy	-	108
	GRI 205: Anti-corruption	205-1 Operations assessed for risks related to corruption	2.4.1 Business Integrity	Integrity management & legal compliance	62
		205-2 Communication and training about anti-corruption policies and procedures	2.4.1 Business Integrity		62
		205-3 Confirmed incidents of corruption and actions taken	No incidents of corruption occurred.		-
	GRI 206: Anti-competitive Behavior	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	2.4.2 Legal Compliance		63
Environment	GRI 302: Energy	302-1 Energy consumption within the organization	4.2.1 Energy Usage Management		138
		302-3 Energy intensity	4.2.1 Energy Usage Management		138
		302-4 Reduction of energy consumption	4.2.1 Energy Usage Management 4.2.2 Greenhouse Gas Management		138、139

Category	Indexes	Disclosure Requirement	Chapters/Explanation	Corresponding to material topics	Page
Environment	GRI 303: Water and Effluents	303-1 Interactions with water as a shared resource	4.2.3 Water Management		146
		303-2 Management of water discharge-related impacts	4.2.3 Water Management		146
		303-3 Water withdrawal	4.2.3 Water Management		146
		303-4 Water discharge	4.2.3 Water Management		146、148
		303-5 Water consumption	4.2.3 Water Management		146、148
	GRI 304: Biodiversity	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	4.3.3 Project Site Ecological Survey and Protection	Biodiversity	159
		304-2 Significant impacts of activities, products and services on biodiversity	4.3.3 Project Site Ecological Survey and Protection		159
		304-3 Habitats protected or restored	4.3.3 Project Site Ecological Survey and Protection		159
	GRI 305: Emissions	305-1 Direct (Scope 1) GHG emissions	4.2.2 Greenhouse Gas Management	Greenhouse gas (GHG) management	139、140
		305-2 Energy indirect (Scope 2) GHG emissions	4.2.2 Greenhouse Gas Management		139、140
		305-3 Other indirect (Scope 3) GHG emissions	4.2.2 Greenhouse Gas Management		139、142
		305-4 GHG emissions intensity	4.2.2 Greenhouse Gas Management		140
	GRI 306: Waste	306-1 Waste generation and significant waste-related impacts	4.2.3 Water Management		149
		306-2 Management of significant waste-related impacts	4.2.3 Water Management		149、150
		306-3 Waste generated	4.2.3 Water Management		150
		306-4 Waste diverted from disposal	4.2.3 Water Management		149、150
		306-5 Waste directed to disposal	4.2.3 Water Management		149、150
	GRI 308: Supplier Environmental Assessment	308-1 New suppliers that were screened using environmental criteria	3.3.3 Procurement for overseas sites		112
		308-2 Negative environmental impacts in the supply chain and actions taken	3.3.3 Procurement for overseas sites		113

Category	Indexes	Disclosure Requirement	Chapters/Explanation	Corresponding to material topics	Page
Social	GRI 401: Employment	401-1 New employee hires and employee turnover	5.1.1 Employee Overview	Talent attraction and retention	166
		401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	5.1.2 Compensation, Benefits, and Employee Well-being		171
		401-3 Parental leave	5.1.3 Human Rights and Communication		175
	GRI 403: Occupational Health and Safety	403-1 Occupational health and safety management system	5.3.1 Occupational Safety and Health Management Measures	Occupational health and safety	187
		403-2 Hazard identification, risk assessment, and incident investigation	5.3.4 Contractor Safety and Health Management		189、191
		403-3 Occupational health services	5.3.3 Occupational Health Services and Promotion 5.3.5 Health Promotion and Employee Well-being		192、201、202
		403-4 Worker participation, consultation, and communication on occupational health and safety	5.3.1 Occupational Safety and Health Management Measures		187
		403-5 Worker training on occupational health and safety	5.3.3 Occupational Health Services and Promotion		194
		403-6 Promotion of worker health	5.3.3 Occupational Health Services and Promotion 5.3.5 Health Promotion and Employee Well-being		192、200、202、
		403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	3.3.3 Procurement for overseas sites 5.3.4 Contractor Safety and Health Management		114、196、197、
		403-8 Workers covered by an occupational health and safety management system	5.3.1 Occupational Safety and Health Management Measures		188
		403-9 Work-related injuries	5.3.3 Occupational Health Services and Promotion		195
		403-10 Work-related ill health	5.3.3 Occupational Health Services and Promotion		195
	GRI 404: Training and Education	404-1 Average hours of training per year per employee	5.2.1 Talent Development Strategy and Structure	Talent attraction and retention	181
		404-3 Percentage of employees receiving regular performance and career development reviews	5.2.1 Talent Development Strategy and Structure		181、183

Category	Indexes	Disclosure Requirement	Chapters/Explanation	Corresponding to material topics	Page
Social	GRI 405: Diversity and Equal Opportunity	405-1 Diversity of governance bodies and employees	2.1.2 Board of Directors 5.1.1 Employee Overview	Talent attraction and retention	47、166、169
		405-2 Ratio of basic salary and remuneration of women to men	5.1.2 Compensation, Benefits, and Employee Well-being		171、173
	GRI 406: Non-discrimination	406-1 Incidents of discrimination and corrective actions taken	5.1.3 Human Rights and Communication		175、180
	GRI 408: Child Labor	408-1 Operations and suppliers at significant risk for incidents of child labor	5.1.3 Human Rights and Communication	-	175
	GRI 413: Local Communities	413-1 Operations with local community engagement, impact assessments, and development programs	4.3.3 Project Site Ecological Survey and Protection	Local community communication & participation	159
	GRI 414: Supplier Social Assessment	414-1 New suppliers that were screened using social criteria	5.3.4 Contractor Safety and Health Management	-	112
		414-2 Negative social impacts in the supply chain and actions taken	3.3.3 Procurement for overseas sites 5.3.4 Contractor Safety and Health Management	-	113、196-198
	GRI 417: Marketing and Labeling	417-2 Incidents of non-compliance concerning product and service information and labeling	There were no incidents of non-compliance with applicable laws and regulations.	Product quality and responsibility	-
		417-3 Incidents of non-compliance concerning marketing communications	There were no incidents of non-compliance with applicable laws and regulations.		-
	GRI 418: Customer Privacy	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	No incidents of customer privacy infringement or complaints regarding the loss of customer data were reported.		-

Appendix 2. Climate-Related Disclosures of TWSE/TPEx Listed Company

Risks and opportunities posed by climate change to the Company and the relevant measures taken by and the relevant countermeasures taken by the Company.

TCFD Four Pillars	Items	Execution Status	Page
Governance	Describe the board of directors' and management's oversight and governance of climate-related risks and opportunities.	Refer to: 4.1.1 Climate Governance	126
Strategy	Describe how the identified climate risks and opportunities affect the business, strategy, and nances of the business (in short-term, medium-term, and long-term).	Refer to: 4.1.2 Climate Risk and Opportunity Identification	126
	Describe the financial impact of extreme weather events and transformative actions.	Refer to: 4.1.3 Climate Management Policies	131
Risk Management	Describe how climate risk identification, assessment, and management processes are integrated into the overall risk management system.	Refer to: 4.1.1 Climate Governance	126
	If scenario analysis is used to assess resilience to climate change risks, the scenarios, parameters, assumptions, analysis factors and major financial impacts used should be described.	Refer to: 4.1.1 Climate Governance	126
	If there is a transition plan for managing climate-related risks, describe the content of the plan, and the indicators and targets used to identify and manage physical risks and transition risks.	Refer to: 4.1.3 Climate Management Policies	131
	If internal carbon pricing is used as a planning tool, the basis for setting the price should be stated.	We hasn’ t yet implemented internal carbon pricing as a planning tool.	-
Metrics & Targets	If climate-related targets have been set, the activities covered, the scope of greenhouse gas emissions, the planning horizon, and the progress achieved each year should be specified. If carbon credits or renewable energy certificates (RECs) are used to achieve relevant targets, the source and quantity of carbon credits or RECs to be offset should be specified.	Refer to: 4.1.3 Climate Management Policies	131
	Greenhouse gas inventory and assurance status	Refer to Appendix 4 for additional details.	

Appendix 3: Nature-Related Disclosures of the Company

Risks and opportunities posed by nature-related to the Company and the relevant measures taken by and the relevant countermeasures taken by the Company.

TNFD Four Pillars	Items	Execution Status	Page
Governance	Describe the board's oversight of nature-related dependencies, impacts, risks and opportunities	Refer to: 4.3.2 Biodiversity Management and Action Plans	158
	Describe management's role in assessing and managing nature-related dependencies, impacts, risks and opportunities		158
	Describe the organization's human rights policies and engagement activities, and oversight by the board and management, with respect to Indigenous Peoples, Local Communities, affected and other stakeholders, in the organization's assessment of, and response to, nature-related dependencies, impacts, risks and opportunities		158
Strategy	Describe the nature-related dependencies, impacts, risks and opportunities the organization has identified over the short, medium and long term		158
	Describe the effect nature-related dependencies, impacts, risks and opportunities have had on the organization's business model, value chain, strategy and financial planning, as well as any transition plans or analysis in place		159-160
	Describe the resilience of the organization's strategy to nature-related risks and opportunities, taking into consideration different scenarios		159-160
	Disclose the locations of assets and/or activities in the organization's direct operations and, where possible, upstream and downstream value chain(s) that meet the criteria for priority locations		159-160
Risk and Impact Management	Describe the organization's processes for identifying, assessing, and prioritizing nature-related dependencies, impacts, risks and opportunities in its direct operations		158
	Describe the organization's processes for identifying, assessing, and prioritizing nature-related dependencies, impacts, risks and opportunities in its upstream and downstream value chain(s)		158
	Describe the organization's processes for managing nature-related dependencies, impacts, risks and opportunities		158
	Describe how processes for identifying, assessing, prioritizing, and monitoring nature-related risks are integrated into and inform the organization's overall risk management processes		158
Metrics & Targets	Disclose the metrics used by the organization to assess and manage material nature-related risks and opportunities in line with its strategy and risk management process		159-160
	Disclose the metrics used by the organization to assess and manage dependencies and impacts on nature		158
	Describe the targets and goals used by the organization to manage nature-related dependencies, impacts, risks and opportunities and its performance against these		160

Appendix 4. Greenhouse Gas Inventory and Verification Status

Basic information of the company	Execution Status
☐ Capital of NT$10 billion or more, steel industry, or cement industry ☐ Capital of NT$5 billion or more but less than NT$10 billion ■ Capital of less than NT$5 billion	■ Inventory for the parent company only ☐ Inventory for all consolidated entities ■ Assurance for the parent company only ☐ Assurance for all consolidated entities

Scope 1	Total Emission (Metric tons CO_2e)	Emission Intensity (metric tons CO_2e / NT$ thousand	Assurance institution	Description
Parent company	119.3744	0.001%	BSI	Refer to: 4.2.2 Greenhouse Gas Management
Subsidiary				
Other				
Total	119.3744	0.001%		
Scope 2	**Total Emission (Metric tons CO_2e)**	**Emission Intensity (metric tons CO_2e / NT$ thousand**	**Assurance institution**	
Parent company	288.5087	0.002%	BSI	
Subsidiary				
Other				
Total	288.5087	0.002%		
Scope 3 (voluntary disclosure)	**217.3609**	**0.002%**	**BSI**	

Note: The intensity is calculated using the 2024 revenue of NT$10,125,465 thousand as the denominator.

Appendix 5: Sustainability Accounting Standards Board (SASB) Reference Table

Disclosure Topic	Metric Code	Disclosure Metric	Explanation	Page
Energy Management	RR-ST-130a.1	201-1 Direct economic value generated and distributed	Refer to: Energy Usage Management	138
	RR-ST-130a.1	Grid electricity ratio: Electricity from the grid (purchased electricity) / Total energy consumption		138
	RR-ST-130a.1	Percentage renewable		138
Water Management	RR-ST-140a.1	Total water withdrawn	Water consumption for all office locations totaled 4,460 cubic meters. When including water use from our photovoltaic (PV) sites and aquaculture operations, the total volume is 161,000 cubic meters. Refer to: 4.2.3 Water Management	146
	RR-ST-140a.1	Total water consumed	171,894 cubic meters.	147
	RR-ST-140a.1	Percentage of each in regions with high or extremely high baseline water stress	0% (as Taiwan is not a high water-stress region).	-
Hazardous Waste Management	RR-ST-150a.1	Weight of hazardous waste	No hazardous waste was generated in 2024.	-
	RR-ST-150a.1	Amount of hazardous waste generated, percentage recycled in MT/%		-
	TR-AP-150a.2	Number of hazardous material spills	There were no hazardous material spills in 2024.	-
	TR-AP-150a.2	Number and aggregate quantity of reportable spills, quantity recovered		-
Ecological Impacts	RR-ST-160a.1	Number and duration of project delays related to ecological impacts	There were no project delays in 2024.	-
	RR-ST-160a.2	Description of efforts in solar energy system project development to address community and ecological impacts	Refer to: 4.3.1 Nature-related Assessment Method: LEAP Process	152
Management of Energy Infrastructure Integration & Related Regulations	RR-ST-410a.1	Description of risks associated with integration of solar energy into existing energy infrastructure and discussion of efforts to manage those risks	Refer to: 2.4.1 Business Integrity, 4.1.4 Climate Risk Scenario Analysis.	
	RR-ST-410a.2	Description of risks and opportunities associated with energy policy and its impact on the integration of solar energy into existing energy infrastructure		

Disclosure Topic	Metric Code	Disclosure Metric	Explanation	Page
Product End-of-life Management	RR-ST-410b.1	Percentage of products sold that are recyclable or reusable	Not applicable.	-
	RR-ST-410b.2	Weight of end-of-life material recovered, percentage recycled	Not applicable.	-
	RR-ST-410b.3	Percentage of products by revenue that contain IEC 62474 declarable substances, arsenic compounds, antimony compounds, or beryllium compounds	Not applicable.	-
	RR-ST-410b.4	Description of approach and strategies to design products for high value recycling	Refer to: 4.2.3 Water Management	149
Materials Sourcing	RR-ST-440a.1	Description of the management of risks associated with the use of critical materials	Refer to: 2.5.1 Business Integrity	65
	RR-ST-440a.2	Description of the management of environmental risks associated with the polysilicon supply chain	Not applicable.	-
Activity Metrics	RR-ST-000.A	Total capacity of photovoltaic (PV) solar modules produced	Not applicable.	-
	RR-ST-000.B	Total capacity of completed solar energy systems (MW)	405 MW.	81
	RR-ST-000.C	Total project development assets	Over NT$ 65 billion.	-

Appendix 6: Third Party Assurance Statement

安永聯合會計師事務所

11012 台北市基隆路一段333號9樓
9F, No. 333, Sec. 1, Keelung Road
Taipei City, Taiwan, R.O.C.

Tel: 886 2 2757 8888
Fax: 886 2 2757 6050
www.ey.com/tw

會計師獨立確信報告

泓德能源科技股份有限公司　公鑒

確信範圍

本會計師接受泓德能源科技股份有限公司（以下簡稱泓德能源）之委任，對2024年度永續報告書中所選定之永續績效資訊 (以下稱「標的資訊」)，執行財團法人中華民國會計研究發展基金會所發布之確信準則所定義之「有限確信案件」並出具報告。

標的資訊及其適用基準

有關泓德能源之標的資訊及其適用基準詳列於附件一。

管理階層責任

泓德能源管理階層之責任係依據適當之基準編製標的資訊，包括參考全球永續性報告協會(Global Reporting Initiatives, GRI)所發布之2021年GRI 準則(GRI Standards)，泓德能源管理階層應選擇所適用之基準，並對標的資訊在所有重大方面是否依據該適用基準報導負責，此責任包括建立及維持與標的資訊編製有關之內部控制、維持適當之記錄並作成相關之估計，以確保標的資訊未存有導因於舞弊或錯誤之重大不實表達。

本事務所責任

本會計師之責任係依據所取得之證據對標的資訊作成結論。

本會計師依照財團法人中華民國會計研究發展基金會所發布之確信準則3000號「非屬歷史性財務資訊查核或核閱之確信案件」之要求規劃並執行有限確信工作，以對標的資訊是否存有重大不實表達出具有限確信報告。本會計師依據專業判斷，包括對導因於舞弊或錯誤之重大不實表達風險之評估，以決定確信程序之性質、時間及範圍。

本會計師相信已取得足夠及適切之證據，以作為表示有限確信結論之基礎。

會計師之獨立性及品質管理

本會計師及所隸屬組織遵循會計師職業道德規範中有關獨立性及其他道德規範之規定，該規範之基本原則為正直、公正客觀、專業能力及專業上應有之注意、保密及專業行為。

本事務所遵循品質管理準則1號「會計師事務所之品質管理」，該品質管理準則規定組織設計、付諸實行及執行品質管理制度，包含與遵循職業道德規範、專業準則及適用之法令規範相關之政策或程序。

所執行程序之說明

有限確信案件中執行程序之性質及時間與適用於合理確信案件不同，其範圍亦較小，因此，有限確信案件中取得之確信程度明顯低於合理確信案件中取得者。本會計師所設計之程序係為取得有限確信並據此作成結論，並不提供合理確信必要之所有證據。

儘管本會計師於決定確信程序之性質及範圍時曾考量泓德能源內部控制之有效性，惟本確信案件並非對泓德能源內部控制之有效性表示意見。本會計師所執行之程序不包括測試控制或執行與檢查資訊科技(IT)系統內資料之彙總或計算相關之程序。

有限確信案件包括進行查詢，主要係對負責編製標的資訊及相關資訊之人員進行查詢，並應用分析及其他適當程序。

本會計師所執行之程序包括：

- 與泓德能源人員進行訪談，以瞭解泓德能源之業務與履行永續發展之整體情況，以及永續報導流程；
- 透過訪談、檢查相關文件，以瞭解泓德能源之主要利害關係人及利害關係人之期望與需求、雙方具體之溝通管道，以及泓德能源如何回應該等期望與需求；
- 與泓德能源攸關人員進行訪談，以瞭解用以蒐集、整理及報導標的資訊之相關流程；
- 檢查計算標準是否已依據適用基準中概述的方法正確應用；
- 針對報告中所選定之永續績效資訊進行分析性程序；蒐集並評估其他支持證據資料及所取得之管理階層聲明；如必要時，則抽選樣本進行測試；
- 閱讀泓德能源之永續報告書，確認其與本會計師取得關於永續發展整體履行情況之瞭解一致。

先天限制

因永續報告中所包含之非財務資訊受到衡量不確定性之影響，選擇不同的衡量方式，可能導致績效衡量上之重大差異，且由於確信工作係採抽樣方式進行，任何內部控制均受有先天限制，故未必能查出所有業已存在之重大不實表達，無論是導因於舞弊或錯誤。

結論

依據所執行之程序及所取得之證據，本會計師未發現標的資訊有未依照適用基準編製而須作重大修正之情事。

其他事項

本確信報告出具後，泓德能源對任何確信標的或適用基準之變更，本會計師將不負就該等資訊重新執行確信工作之責任。

安永聯合會計師事務所

會計師：呂倩雯

民國一一四年八月五日

Appendix 6: Third Party Assurance Statement

EY 安永
Building a better working world

附件一：

<table>
<tr><th>編號</th><th>章節</th><th>內文標題</th><th>標的資訊</th><th>適用基準</th></tr>
<tr><td>1</td><td>CH5 永續人才・幸福職場</td><td>5.1.1 員工概況</td><td>
2024 年新進員工比例佔年底總員工人數之 38.44%
2024 年人員離職率佔年底總員工數之 14.81%
● 2024 年新進員工組成
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<tr><th rowspan="2">男</th><th rowspan="2">女</th><th>30 歲以下</th><th>31-40 歲</th><th>41-50 歲</th><th>51 歲以上</th><th>30 歲以下</th><th>31-40 歲</th><th>41-50 歲</th><th>51 歲以上</th></tr>
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<tr><td>台北</td><td>102</td><td>48</td><td>54</td><td>18</td><td>15</td><td>13</td><td>2</td><td>20</td><td>22</td><td>10</td><td>2</td></tr>
<tr><td>台中</td><td>21</td><td>8</td><td>13</td><td>3</td><td>1</td><td>4</td><td>0</td><td>3</td><td>9</td><td>1</td><td>0</td></tr>
<tr><td>台南</td><td>25</td><td>21</td><td>4</td><td>13</td><td>4</td><td>1</td><td>3</td><td>2</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>合計</td><td>148</td><td>77</td><td>71</td><td>34</td><td>20</td><td>18</td><td>5</td><td>25</td><td>32</td><td>11</td><td>3</td></tr>
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● 2024 年離職員工組成
<table>
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<tr><th rowspan="2">男</th><th rowspan="2">女</th><th>30 歲以下</th><th>31-40 歲</th><th>41-50 歲</th><th>51 歲以上</th><th>30 歲以下</th><th>31-40 歲</th><th>41-50 歲</th><th>51 歲以上</th></tr>
<tr><th>男</th><th>男</th><th>男</th><th>男</th><th>女</th><th>女</th><th>女</th><th>女</th></tr>
<tr><td>台北</td><td>32</td><td>8</td><td>24</td><td>3</td><td>4</td><td>1</td><td>0</td><td>10</td><td>6</td><td>6</td><td>2</td></tr>
<tr><td>台中</td><td>10</td><td>3</td><td>7</td><td>1</td><td>2</td><td>0</td><td>0</td><td>2</td><td>1</td><td>4</td><td>0</td></tr>
<tr><td>台南</td><td>15</td><td>12</td><td>3</td><td>8</td><td>3</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
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</table>
</td><td>GRI 401-1 新進員工與離職員工
報導組織應報告以下資訊：
a. 在報導期間內，按年齡層、性別及地區劃分新進員工的總數及比例。
b. 在報導期間內，按年齡層、性別及地區劃分離職員工的總數及比例。</td></tr>
</table>

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<table>
<tr><th>編號</th><th>章節</th><th>內文標題</th><th>標的資訊</th><th>適用基準</th></tr>
<tr><td>2</td><td>CH5 永續人才・幸福職場</td><td>5.1.3 人權與溝通</td><td>
<table>
<tr><td rowspan="6">獲假復職率</td><td rowspan="3">男</td><td>2024 年度育嬰假後應復職人數</td><td>1</td></tr>
<tr><td>2024 年度育嬰假後實際申請復職人數</td><td>0</td></tr>
<tr><td>復職率</td><td>0%</td></tr>
<tr><td rowspan="3">女</td><td>2024 年度育嬰假後應復職人數</td><td>7</td></tr>
<tr><td>2024 年度育嬰假後實際申請復職人數</td><td>7</td></tr>
<tr><td>復職率</td><td>100%</td></tr>
<tr><td rowspan="6">獲假留任率</td><td rowspan="3">男</td><td>2023 年度復職人數</td><td>0</td></tr>
<tr><td>2023 年度復職滿一年人數</td><td>0</td></tr>
<tr><td>留任率</td><td>0%</td></tr>
<tr><td rowspan="3">女</td><td>2023 年度復職人數</td><td>3</td></tr>
<tr><td>2023 年度復職滿一年人數</td><td>3</td></tr>
<tr><td>留任率</td><td>100%</td></tr>
</table>
</td><td>GRI 401-3 育嬰假
報導組織應報告以下資訊：
a. 按性別劃分，享有育嬰假的員工總數。
b. 按性別劃分，實際使用育嬰假的員工總數。
c. 按性別劃分，休完育嬰假後，在報導期間復職的員工總數。
d. 按性別劃分，休完育嬰假且復職後十二個月仍在職的員工總數。
e. 按性別劃分，休完育嬰假後復職和留任的員工比例。</td></tr>
<tr><td>3</td><td>CH5 永續人才・幸福職場</td><td>5.2.1 人才發展策略與架構</td><td>
2024 員工教育訓練統計表
<table>
<tr><th rowspan="2">項目</th><th colspan="2">男性</th><th colspan="2">女性</th><th colspan="3">合計</th></tr>
<tr><th>人次</th><th>時數</th><th>人次</th><th>時數</th><th>人次</th><th>時數</th><th>人均(小時)</th></tr>
<tr><td>一般同仁</td><td>555</td><td>1522</td><td>843</td><td>1689</td><td>1398</td><td>3211</td><td>2.3</td></tr>
<tr><td>中階主管</td><td>257</td><td>665.5</td><td>205</td><td>575.5</td><td>462</td><td>1241</td><td>2.7</td></tr>
<tr><td>高階主管</td><td>63</td><td>192</td><td>29</td><td>112</td><td>92</td><td>304</td><td>3.3</td></tr>
</table>
</td><td>GRI 404: 訓練與教育
報導組織應報告以下資訊：
a. 就下列劃分，組織員工在報導期間內接受訓練的平均時數：
i. 性別；
ii. 員工類別。</td></tr>
</table>

Appendix 6: Third Party Assurance Statement

編號	章節	內文標題	標的資訊	適用基準
4	CH3 永續創新、綠色智能	3.3.4 泓德服務客戶滿意	2024 年未有侵犯客戶隱私權之情事或遺失客戶資料的投訴。	GRI 418: 客戶隱私 報導組織應報告以下資訊： a. 按以下分類，說明已證實之投訴屬於侵犯客戶隱私的總數： i. 來自外部各方並經由組織已證實的投訴； ii. 來自監管機關的投訴。 b. 經證實之資訊洩露、失竊或遺失客戶資料事件的總數。 c. 如果組織未認定任何的投訴，簡要陳述此一事實即可。