

Efficiency Sustainability Growth



About This Report

Overview

Since its spin-off from Hyundai Heavy Industries in 2017, HD Hyundai Electric has published an annual Sustainability Report. The report aims to transparently disclose the company's financial performance and Environmental, Social, and Governance (ESG) information to stakeholders. It is structured into four main sections: Overview, introducing the company's business; ESG Management, presenting the ESG management framework; ESG Fact Book, reporting performance by E, S, and G topics in line with disclosure standards; and Appendix, providing supplemental information. Together, these sections offer a comprehensive view of HD Hyundai Electric's sustainability practices and results.

Reporting Standards

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards 2021, the international framework for sustainability reporting, to ensure transparent disclosure of HD Hyundai Electric's sustainability performance. It also incorporates indicators from the Sustainability Accounting Standards Board (SASB) to reflect material issues specific to the company's industry and considers the United Nations Sustainable Development Goals (UN SDGs). In addition, the report has selectively incorporated the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD) and the Taskforce on Nature-related Financial Disclosures (TNFD). To align with emerging ESG disclosure requirements, the report applies the sustainability disclosure standards issued by the International Sustainability Standards Board (ISSB)—IFRS S1 and S2—and presents key issues in accordance with the framework of governance, strategy, risk management, and metrics and targets. All financial information in this report has been prepared in accordance with the Korean International Financial Reporting Standards (K-IFRS).

Reporting Scope

This report primarily covers HD Hyundai Electric's ESG management activities and performance across its domestic operations, including the headquarters and manufacturing facilities in Korea. In certain cases, data also reflect contributions from overseas subsidiaries and other consolidated entities. The financial information—based on consolidated financial statements—covers HD Hyundai Electric and its 11 subsidiaries.

Reporting Period

This report covers HD Hyundai Electric's key sustainability activities and performance from January 1 to December 31, 2024, and includes certain significant activities up to the first half of 2025. Quantitative data are disclosed for a three-year period (2022–2024) to show performance trends over time, with some data covering four years (2021–2024). Due to the enhancement of HD Hyundai Group's group-wide data measurement system during the reporting period, some quantitative data may differ from that presented in the 2023 Sustainability Report.

Assurance

To ensure the coherence, completeness, data quality, and reliability of the information disclosed in this report, HD Hyundai Electric commissioned an independent third-party assurance by the Korean Foundation for Quality (KFQ). In addition, verification of greenhouse gas emissions and energy consumption data was conducted by DNV Business Assurance Korea Ltd. to further strengthen the accuracy and credibility of the reported data. The results of these assurance engagements are provided in the Appendix under "External Assurance Statement" and "Greenhouse Gas(GHG) Emissions Verification Statement."

Access to the Report

To ensure transparent communication with stakeholders, HD Hyundai Electric regularly discloses management-related information on its official website. Additional information can be accessed via the company's website, annual business reports, audit reports, and the disclosure portal of the Financial Supervisory Service of Korea.

For inquiries or comments regarding this report, please contact the ESG Management Team at HD Hyundai Electric.

HD Hyundai Electric ESG Management Team

Address 477, Bundang Suseo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do
(HD Hyundai Global R&D Center)

Phone Number 02-479-9062

Website URL <https://www.hd-hyundaelectric.com>

Email Address yung910@hd.com

CONTENTS

OVERVIEW

CEO Message	05
Company Profile	06
Business Portfolio	08
Business Highlight	13
Global Network	14

ESG MANAGEMENT

ESG Governance	16
ESG Strategy	17
Double Materiality Assessment	18
Materiality Issue Analysis	20
Stakeholder Engagement and Communication	22
ESG Highlight	23

ESG FACT BOOK

Environmental

Products and Technology Development	26
Climate Action	30
Environmental Management	39
Resource Circulation and Chemicals	45
Biodiversity	48

Social

Human Rights	56
Talent Management	60
Health and Safety	70
Supply Chain Management	78
Raw Materials	84
Product Safety and Quality	85
Local Community	88

Governance

Ethics and Compliance	94
Corporate Governance	99
Shareholder Value	106
Risk Management	109
Information Security and Privacy	111

APPENDIX

Financial Information	115	UN SDGs Index	123
GRI Standards Index	116	External Assurance Statement	124
SASB Index	120	Greenhouse Gas (GHG) Emissions Verification Statement	126
TCFD Index	121	Scope3 Emissions Verification Statement	127
UNGC Index	122	Memberships and Disclosures	129

Interactive PDF User Guide

HD Hyundai Electric's Sustainability Report is designed as an interactive PDF to help stakeholders navigate the content more easily. By clicking the table of contents, previous page, or back buttons, you can quickly move to the desired section. Links to relevant web pages are also available within the report.



- Table of Contents
- Back to Previous Section
- Previous Page
- Next Page
- Linked Web Pages

OVERVIEW

CEO Message
Company Profile
Business Portfolio
Business Highlight
Global Network

ESG MANAGEMENT

ESG FACT BOOK

APPENDIX

OVERVIEW

CEO Message	05
Company Profile	06
Business Portfolio	08
Business Highlight	13
Global Network	14



OVERVIEW

» CEO Message

Company Profile
Business Portfolio
Business Highlight
Global Network

ESG MANAGEMENT

ESG FACT BOOK

APPENDIX

CEO Message



CEO of HD Hyundai Electric
Kim, Youngki

Dear Stakeholders of HD Hyundai Electric,

The year 2024 has been marked by continued uncertainty in the external environment, driven by persistent high inflation and interest rates, a global economic slowdown, the ongoing war between Russia and Ukraine, and heightened tensions in the Middle East. Additionally, intensified technological competition between the United States and China—particularly in strategic industries such as artificial intelligence—has further exacerbated global economic volatility.

Despite these unstable conditions, HD Hyundai Electric achieved a historic milestone in 2024 by posting its highest-ever financial performance since its establishment, through solid, profitability-driven management. We also earned the highest rating of A+ in the Korea Institute of Corporate Governance and Sustainability evaluation, and achieved meaningful progress in ESG—expanding our share of renewable energy use, establishing a Compensation Committee, and initiating our first-ever quarterly dividend.

The external environment we face this year remains challenging. Protectionism continues to rise globally, and geopolitical risks that have persisted since 2024 remain ever-present. While the momentum of the green transition appears to have slowed somewhat in the near term, we believe that the long-term direction toward carbon neutrality and sustainability remains unchanged. In this context, HD Hyundai Electric will move forward with the following strategic directions to strengthen our core competitiveness and ensure long-term sustainability.

First, we aim to accelerate product development and expand our market presence to lead the sector in environmentally sustainable energy solutions, while steadily increasing our use of renewable energy.

Following the development of a 170kV SF₆-Free high-voltage circuit breaker capable of reducing greenhouse gas emissions, HD Hyundai Electric has successfully developed an export-grade 145kV SF₆-Free model using proprietary technology. In October 2024, we also succeeded in localizing a large-capacity low-voltage drive for ships—an essential component for marine electrification. We will actively utilize these products to expedite market entry and further expand our lineup of environmentally sustainable solutions that contribute to carbon reduction.

In addition, since announcing our commitment to “RE100 by 2040,” we have taken the first step in implementing our roadmap by purchasing Renewable Energy Certificates (RECs) in 2023. In 2024, we increased the share of renewable energy usage to 3% on a consolidated basis. This year, we aim to raise that figure to 10% by expanding the number of sites that adopt renewable energy and diversifying procurement methods.

Second, we will strengthen our partnerships for mutual growth with partner companies and local communities.

To support the talent acquisition efforts of our partner companies, HD Hyundai Electric launched an “Online Recruitment Platform for Partner Companies” via JobKorea in September 2024. Starting this year, this initiative has been expanded across the entire HD Hyundai Group. We also launched a new initiative in 2025 to support digital manufacturing innovation among SMEs: the Win-Win Smart Factory Program for Large and Small Enterprises. In March 2024, we signed a memorandum of understanding (MOU) with the city of Seongnam—where our headquarters is located—for mutual cooperation in ESG-related environmental initiatives. Building on this, we plan to continue our ESG engagement with the local community by participating in biodiversity conservation activities and environmental clean-up campaigns in partnership with Seongnam City and key local businesses.

Third, we aim to enhance shareholder value through a proactive shareholder return policy.

HD Hyundai Electric has established a target dividend payout ratio of over 30% as part of our commitment to returning value to shareholders. In 2024, we achieved a payout ratio of approximately 40%, distributing KRW 1,100 per share for the quarterly dividend and KRW 4,250 per share for the year-end dividend. In addition, to enhance the predictability of dividends, record date for year-end dividends was changed to a date after the dividend resolution.

In recognition of these efforts, HD Hyundai Electric was honored with the Deputy Prime Minister’s Award—the highest distinction—after being selected as an Outstanding Value-Up Company in 2025. We remain committed to enhancing shareholder value while reinforcing the foundation for sustainable growth.

Over the past few years, HD Hyundai Electric has achieved remarkable growth through tireless efforts and a favorable market environment. However, rather than settling into the current favorable conditions, we will continue to pursue long-term growth by securing fundamental competitiveness through the development of environmentally sustainable and high-efficiency products and by actively entering new markets. At the same time, we will create sustainable value in partnership with stakeholders—including our suppliers, local communities, and shareholders. We sincerely ask for your continued support and interest in HD Hyundai Electric.

Thank you.

OVERVIEW

CEO Message

Company Profile

Business Portfolio

Business Highlight

Global Network

ESG MANAGEMENT

ESG FACT BOOK

APPENDIX

Company Profile

Since its inception in 1977 as the Electrical Engineering Division of Hyundai Heavy Industries, HD Hyundai Electric has led the power industry by delivering advanced electrical systems and energy solutions across the entire power value chain. With decades of technological expertise, the company has grown into one of Korea's leading total solution providers in the electrical and energy sectors. On April 1, 2017, the company was spun off as an independent entity specializing in electrical and electronic systems. Since then, HD Hyundai Electric has been evolving into a sustainability-focused enterprise, contributing to the global transition toward carbon neutrality. The global energy market is undergoing a paradigm shift—driven by the electrification of industries, rising energy demand, the expansion of renewables, and the growth of IT-integrated smart grids. In response, HD Hyundai Electric is expanding into new business areas and is poised to transform into a comprehensive energy solutions provider.

Company Overview

Company Name	HD Hyundai Electric Co., Ltd.
CEO	Kim, Youngki
Business Areas	Electrical and Electronic Equipment, Energy Solutions
Number of Subsidiaries	11
Headquarters	477, Bundangsuseo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea
Date of Establishment	April 1, 2017
Number of Employees	2,193
Major Shareholders	HD Hyundai Co., Ltd. (37.04%), National Pension Service (8.03%), etc.

* As of March 31, 2025

Financial Highlights

(Unit: KRW million)

Total Assets	3,795,545
Total Equity	1,507,517
Revenue	3,322,349
Operating Profit	668,970
Net Income	498,409

* Consolidated basis as of December 31, 2024

Credit Ratings

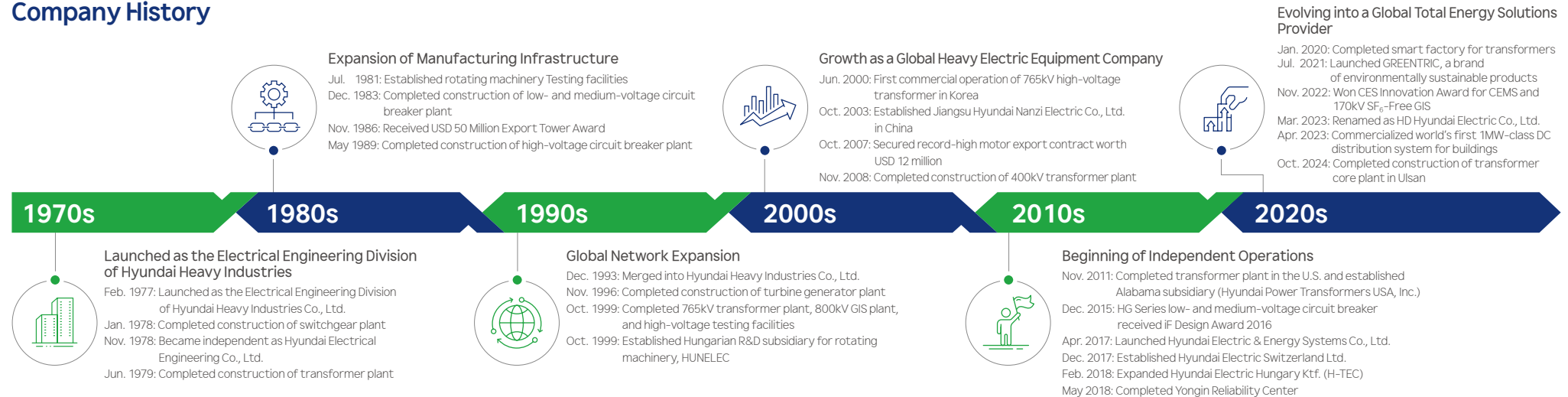
Korea Ratings	Korea Investors Service	NICE Investors Service
A+	A+	A+

* As of May 31, 2025

Sustainability Ratings

Korea Institute of Corporate Governance and Sustainability	MSCI
A+ Overall	BBB Overall
S&P CSA	CDP
63/100	B

Company History



OVERVIEW

CEO Message

▶ **Company Profile**

Business Portfolio

Business Highlight

Global Network

ESG MANAGEMENT

ESG FACT BOOK

APPENDIX

Company Profile

HD Hyundai Electric follows the mission of HD Hyundai—to pioneer the future of humanity through leading innovations and relentless challenges. With strong drive and determination, we enhance customer productivity and lead the growth of the electrical and electronic equipment industry by delivering integrated energy solutions. In response to a rapidly changing market environment, we are expanding our value chain across both power generation and consumption sectors, thereby strengthening our foundation for sustainable growth and future competitiveness.

We will continue to lead the digital transformation and build environmentally sustainable power infrastructure, providing innovative technologies as we evolve into a global total energy solutions provider.

HD Hyundai Mission, Vision & Core Values



Mission	We bring the future closer to humanity by steering innovation and defying our limits
Vision	Unlocking the limitless potential of the ocean - To pioneer new ways of capturing untapped opportunities of the ocean by leading ocean mobility and green ocean energy with electrification technology, autonomous engineering and digital platforms. Shaping a sustainable energy ecosystem - To lead carbon-free energy transition by developing next-generation clean technology, building capabilities across value chains of future energy including hydrogen and innovating advanced material technology. Transcending limitations of industrial solutions - To contribute to the improvement of safety and efficiency of all industries by expanding the dimensions of industrial solutions through convergence with artificial intelligence and robotics.
Core Values	Innovation to lead - Transform the way we work with creative mindset. - Shape the future of our industry through innovative and disruptive technology. Challenge without fear - Challenge ourselves relentlessly to create new values Foster a culture of challenging without fear by embracing failure. Care with respect - Respect diversity and encourage open communication Care for our people's personal and professional growth. - Make a better world by upholding social responsibility. Safety for us and for all - Pursue the highest safety standards for our people and workplace Contribute to the safety of customers, society and humanity with our products.

HD Hyundai Electric's Mission, Vision & Core Values



Mission	Empower Growth
Vision	Strong Drive - HD Hyundai Electric's strong drive is leading the growth of our customer's businesses and industries. Integrated Energy Solutions - We provide integrated energy solutions to improve our customers' business productivity and lead the growth in their respective industries. Unlimited Potential - With sheer determination and strong drive, we will spearhead the global heavy electrical machinery market with unlimited potential.
Core Values	Creative - We provide products and solutions with creative foresight and unique technology that are faithful to the essence of our customers' business. Reliable - We build customer trust by implementing our proactive "Before Service" philosophy, which meets the needs of customers before they are discovered. Efficient - We provide products and solutions based on energy efficiency, to improve our customers' business efficiency and return on investment(ROI). Driven - We achieve our goal of spearheading the market with a strong drive and determination, and lead customer communication by proactively responding to their needs. Integrated - We advance as a total solution provider which offers products and control technologies in an integrated manner. All Values, We make the Electric & Energy for All - By integrating all values, we will make Electric & Energy for All.

OVERVIEW

CEO Message
Company Profile
» **Business Portfolio**
Business Highlight
Global Network

ESG MANAGEMENT

ESG FACT BOOK

APPENDIX

Business Portfolio

Business Areas

HD Hyundai Electric designs and supplies a wide range of electrical equipment and energy solutions that support every stage of the power supply process—from generation and transmission to distribution and end use. As electrification and decarbonization across all industries are expected to significantly reshape the power market, we are expanding into new energy businesses. These include solution-based services that enable the efficient use of power systems, as well as convergence businesses that leverage renewable energy to realize carbon neutrality on a microgrid scale.

1. POWER EQUIPMENT

Solutions that supply power systems within the grid, including generation, transmission, and transformation. Key products include extra-high-voltage transformers and extra-high-voltage circuit breakers.



2. DISTRIBUTION EQUIPMENT

Solutions for the stable distribution and control of power systems. Key products include switchgears, distribution transformers, and low- & medium-voltage circuit breakers.



3. ROTATING MACHINERY

Solutions that meet a wide range of industrial drive and power generation needs. Key products include high-voltage motors, low-voltage motors, and generators.



4. MARINE SOLUTION

Solutions that supply electrical systems for ships and offshore facilities, applicable to general-purpose ships and warships. Key products include marine switchgears, distribution transformers, and rotating machineries for marine applications.



5. GREENTRIC

GREENTRIC is a compound of "Green" and "Electric". Key products include SF₆-Free GIS and synthetic oil-immersed transformers. The company is committed to delivering products that contribute to both environmental protection and human well-being, while promoting a more sustainable future.



6. INTEGRICT

An ICT solution that enhances energy efficiency and asset investment returns for customers. INTEGRICT offers two main service areas: energy solutions and asset management solutions. It not only ensures that customer assets are maintained in optimal condition, but also provides insights based on asset utilization analysis—helping customers focus on business growth and achieve success.



Brand

BRAND SLOGAN



A company that creates 'Essential for Today, Potential for Tomorrow', HD Hyundai Electric's deep insight into cutting-edge technology and industry expresses the company's will to preemptively open the coming ICT era through shapes and messages.

INTEGRICT



HD Hyundai Electric's ICT solutions promise greater energy efficiency and better utilization of assets for our customers. Smart solutions that understand a customer's assets even better than the customer themselves. They not only help maintain and enhance the resources so that the customer can focus on growing their business, but also provide insight into driving the business toward success through asset utilization analysis. HD Hyundai Electric's ICT solutions provide insights that benefit our customers' businesses.

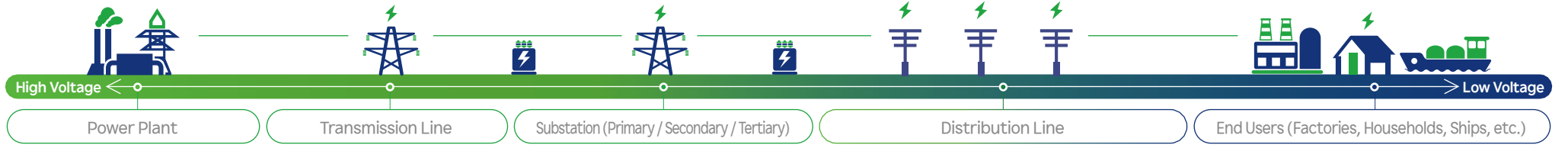
GREENTRIC



GREENTRIC is HD Hyundai Electric's flagship environmentally sustainable brand, created to lead the next-generation power market in the era of energy transition. The name combines "Green" (environmentally sustainable) and "Electric," reflecting our commitment to delivering power equipment that benefits both the environment and humanity while promoting a more sustainable future.

Business Portfolio

Business Portfolio



Power Equipment

We provide power equipment such as power transformers and gas insulated switchgears, which are essential for the generation and transmission stages of the power supply process.

Power Transformer

HD Hyundai Electric has supplied more than 1.2 million MVA of power transformers to over 70 countries worldwide. Equipped with the latest facilities and manufacturing systems that meet international standards, we produce a wide range of transformer specifications up to 800kV, with an annual production capacity of up to 100,000 MVA. In particular, our strength lies in flexible design capabilities that allow for highly customized solutions to meet the diverse needs of our global customers.



Gas Insulated Switchgear

HD Hyundai Electric supplies gas insulated switchgear to more than 40 countries worldwide. With advanced facilities and manufacturing systems aligned with international standards, the company has the capability to produce up to 800kV—the highest voltage rating in Korea. The Gas insulated switchgear produced with this capability offer key advantages, including a robust structure, compact installation footprint, convenient operation and monitoring, low noise and electromagnetic emissions, and long service life. These strengths have been certified by major international testing institutions such as KEMA¹⁾, CESI²⁾, and KERI³⁾. With these proven qualities HD Hyundai Electric's gas insulated switchgear enjoy strong recognition in the global market, particularly in Saudi Arabia and across the Middle East.



Distribution Equipment

We provide products essential to the distribution stage of the power supply process, including switchgears, distribution transformers, and low- & medium-voltage circuit breakers.

Switchgear

HD Hyundai Electric manufactures high-performance, high-reliability switchgears certified to both IEC and ANSI standards. Our product portfolio includes gas-insulated switchgears, low- and high-voltage switchgears, and motor control centers (MCCs). HD Hyundai Electric's switchgears offer not only standardized designs but also fully customizable configurations to meet a wide range of customer needs. Key advantages include high compatibility, long service life, and minimal maintenance requirements. Thanks to proven quality and reliability, our switchgears are widely supplied across Korea's industrial plant market—from commercial buildings and large-scale plants to nuclear power facilities.



Distribution Transformer

HD Hyundai Electric manufactures oil-immersed and dry-type distribution transformers up to 35kV and 50MVA, supplying them to a wide range of customers, including plants, apartment complexes, and subway systems. Our oil-immersed transformers are widely exported to over 70 countries and are known for their highly flexible design and manufacturing capabilities, allowing for extensive customization. Dry-type (molded) transformers offer strong flame resistance, excellent insulation performance, and easy maintenance and inspection.



Low- & Medium-Voltage Circuit Breaker

HD Hyundai Electric offers a wide range of low- and medium-voltage circuit breakers, from MCCBs¹⁾ used in residential buildings to ACBs²⁾ and VCBs³⁾ installed in industrial plants. One of the key strengths of HD Hyundai Electric's circuit breakers is their ability to protect power facilities with high safety and reliability. Among them, the "HG Series" stands out not only for its technical performance, but also for its compact and refined design—recognized by several international design awards, including the iF Design Award 2016.



1) Keuring van Elektrotechnische Materialen te Arnhem, Dutch electrical testing and certification institute
2) Centro Elettrotecnico Sperimentale Italiano, Italian central power testing and certification institute
3) Korea Electrotechnology Research Institute, Korea's national electrotechnology research and testing institute

1) Molded Case Circuit Breaker: A wiring protection device that detects abnormal current flow and disconnects the circuit before overheating or damage can occur
2) Air Circuit Breaker: A circuit breaker that protects motors and electrical systems by detecting conditions such as overvoltage, overcurrent, and undervoltage, and disconnecting the circuit using air as the arc extinguishing medium
3) Vacuum Circuit Breaker: A breaker that interrupts electrical faults—including overvoltage, overcurrent, undervoltage, and short circuits—by extinguishing the arc in a vacuum chamber, thereby preventing damage to transformers and other critical equipment.

OVERVIEW

CEO Message
Company Profile
» **Business Portfolio**
Business Highlight
Global Network

ESG MANAGEMENT

ESG FACT BOOK

APPENDIX

Business Portfolio

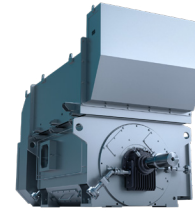
Rotating Machinery

We supply rotating machinery such as high-voltage motors, low-voltage motors, and generators to meet diverse operational and power generation needs at industrial sites.

High-Voltage Motor

HD Hyundai Electric manufactures a wide range of high-voltage motors optimized for diverse operating environments and customer requirements. These motors are designed and produced in full compliance with international standards such as IEC¹⁾, NEMA²⁾, JIS³⁾, ANSI⁴⁾, and DIN⁵⁾, applying advanced engineering and rigorous quality control. Our high-voltage motors deliver excellent performance, including high efficiency, low vibration, and reduced noise. They are supplied to various industries such as power generation, desalination, shipbuilding, offshore, oil & gas, water treatment, nuclear plants, hydrogen and ammonia facilities, carbon capture and electrification.

- 1) International Electrotechnical Commission
- 2) National Electric Manufacturers' Association
- 3) Japanese Industrial Standards
- 4) American National Standards Institute
- 5) Deutsche Industrie Normen



Low-Voltage Motor

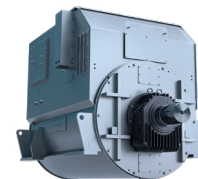
Our premium-efficiency low-voltage motors are designed not only to reduce energy costs but also to minimize noise and vibration through an optimized structure. The use of F-class insulation (maximum permissible temperature: 155°C) combined with B-class winding temperature rise (maximum permissible temperature: 130°C), along with reduced bearing temperatures, contributes to extended motor life. The motors are also compatible with inverter duty and support high IP protection ratings. With these performance advantages, HD Hyundai Electric's low-voltage motors have earned multiple efficiency and safety certifications from countries around the world, demonstrating their technological excellence.



Generator

HD Hyundai Electric supplies a wide range of generators tailored to the needs of various industries—including power plants, marine applications, general industrial use, DPP¹⁾, and PPS²⁾—as well as special-purpose generators for nuclear facilities and test laboratories. Our generators are designed and manufactured using in-house engineering expertise, delivering outstanding performance such as high efficiency and high power density (lightweight design). These features enable stable operation even in harsh environmental conditions.

- 1) Diesel Power Plant
- 2) Packaged Power Station



Marine Solution

We provide Marine Solutions supplies electrical systems to ships and offshore facilities.

Marine Switchgear

HD Hyundai Electric's marine switchgear safely supplies power to onboard electric equipment and protects shipboard power systems¹⁾ in the event of electrical faults. We manufacture a wide range of products optimized for ship environments and have been supplying them to major shipbuilders such as HD Hyundai Heavy Industries, Samsung Heavy Industries, and Hanwha Ocean for over 40 years. With our unmatched quality and technological expertise, we have maintained our position as a market leader in Korea's marine electrical equipment sector.

- 1) A power transmission system which is widely connected with a power plant, a substation, transmission lines, etc.



Marine Distribution Transformer

HD Hyundai Electric's marine distribution transformers offer high stability, low loss, quiet operation, compact size, and lightweight design. With advanced molding technology, they are free from the risk of explosion or fire, while ensuring excellent crack resistance and insulation performance.



Rotating Machinery for Marine

HD Hyundai Electric manufactures shipboard generators and motors that meet international classification standards such as KR¹⁾, ABS²⁾, and LRS³⁾. We supply our products to global manufacturers including HD Hyundai Heavy Industries, Wartsila, and MAN. Our product lineup includes models for general merchant vessels as well as warships, FPSOs⁴⁾, drill ships⁵⁾, and other specialized vessels. Leveraging advanced engineering and robust corrosion resistance, we provide customized models tailored to specific vessel needs, backed by prompt global after-sales service for enhanced product reliability.

- 1) Korea Register of Shipping
- 2) American Bureau of Shipping
- 3) Lloyd's Register of Shipping
- 4) Floating Production Storage and Off-loading
- 5) Drill Ship: A ship-shaped drilling facility specially designed for offshore oil and gas exploration in deep-sea locations where fixed platforms are not feasible



OVERVIEW

CEO Message
Company Profile
» **Business Portfolio**
Business Highlight
Global Network

ESG MANAGEMENT

ESG FACT BOOK

APPENDIX

Business Portfolio

GREENTRIC

GREENTRIC is a product brand that embodies HD Hyundai Electric's commitment to enhance future sustainability and benefit both humanity and the environment. We are dedicated to continuously developing future-oriented technologies and solutions that preserve the Earth and aim to set the standard for next-generation power technologies.

Key Products

SF₆-Free GIS

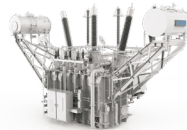
HD Hyundai Electric was the first in Korea to develop SF₆-Free GIS using fully proprietary technology. This product replaces SF₆ (sulfur hexafluoride), which has a Global Warming Potential (GWP) 23,900 times greater than CO₂, with a C₄F₇N+CO₂ gas mixture, reducing greenhouse gas emissions by approximately 99% compared to conventional products.

In April 2021, based on our longstanding technological expertise, we successfully developed Korea's first 170kV 50kA 4,000A GIS using Novec mixed gas (C₄F₇N+CO₂). Following this, we completed the development of a 145kV 40kA 3,150A GIS in December 2023. In June 2024, we also completed the development of a 72.5kV 31.5kA 2,500A GIS, which uses dry air and vacuum interrupter technology with no greenhouse gas application. We will continue to expand our lineup of SF₆-Free GIS across various voltage levels to meet the growing market demand for carbon neutral solutions.



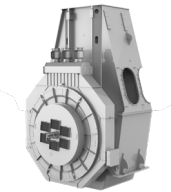
Natural Ester/Synthetic Oil-immersed Power Transformer

HD Hyundai Electric has developed transformers that use flame-retardant, biodegradable, and non-toxic insulating oils (vegetable or synthetic), helping prevent serious environmental pollution in the event of oil leakage. These products integrate HD Hyundai Electric's core technologies—including advanced insulation and cooling designs—and support enhanced explosion-proof performance through the application of DPRS (Dynamic Pressure Resistant System), delivering superior safety and operational performance.



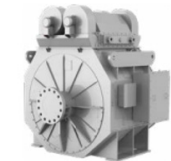
Engine Mounted Generator

HD Hyundai Electric's Engine Mounted Generator (EMG) makes more efficient use of onboard space than conventional shaft generators. Moreover, it enhances the overall energy efficiency of the ship's propulsion system, resulting in approximately 2–3% lower fuel consumption and 4–5% reduction in carbon emissions.



Permanent Magnet Shaft Generator

In November 2021, HD Hyundai Electric became the first company in Korea to successfully develop a 2 MW large-capacity permanent magnet shaft generator using proprietary technology, achieving localization of a product that had previously been entirely dependent on imports. The rotor of this generator features high-performance neodymium permanent magnets, delivering up to 3% higher generation efficiency than conventional methods, while its compact and lightweight design ensures higher power density compared to induction-type generators. By utilizing the rotational energy of large propulsion engines for electricity generation, the system enhances energy efficiency and reduces fuel costs. It also cuts carbon emissions by approximately 3%, improving the Energy Efficiency Design Index (EEDI)¹⁾ and enabling proactive compliance with global environmental regulations.



Dry-air switchgear(E-GIS)

In 2015, HD Hyundai Electric signed a business agreement with Korea Electric Power Corporation (KEPCO) and developed switchgear that employs dry air, with a Global Warming Potential (GWP) below 1, as the insulating medium, replacing SF₆, a greenhouse gas subject to regulation. Responding to the growing demand for environmentally sustainable switchgear, the company successfully developed and supplied the 25.8 kV E-GIS, achieving Korea's first export of such a product in 2020. HD Hyundai Electric is further striving to strengthen its competitiveness in environmentally sustainable products by securing core technologies and commercializing various alternative insulating media in addition to dry air.



IE4 LV Motor (Super Premium Efficiency Low-Voltage Motor)

In July 2023, the European Union raised the minimum efficiency standard for electric motors from the Premium Class (IE3: International Energy Class) to the Super Premium Class (IE4). In response, Korea is expected to adopt the same regulation starting in 2026. HD Hyundai Electric has developed IE4 motors that are more than 1.1% more efficient than IE3 models, proactively responding to the rising demand for IE4 low-voltage motors in developed countries. Leveraging its long-accumulated technological expertise, the company will continue to expand its lineup of high-efficiency, high-output electric motors.



¹⁾ EEDI (Energy Efficiency Design Index): The amount of CO₂ emitted when a ship transports one ton of cargo over one nautical mile (unit: g/ton-mile)

OVERVIEW

CEO Message
Company Profile
▶ **Business Portfolio**
Business Highlight
Global Network

ESG MANAGEMENT

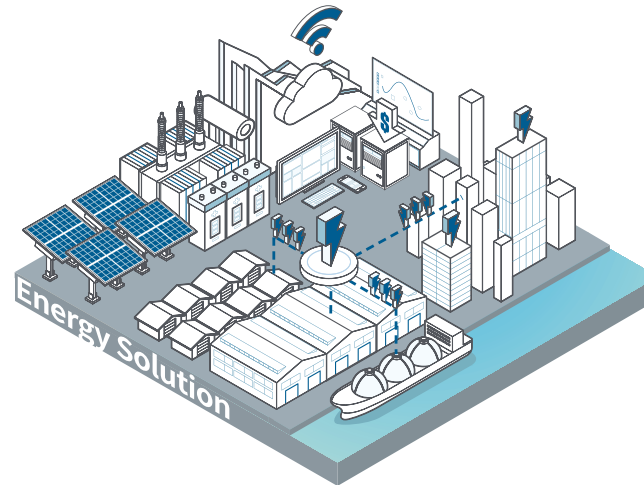
ESG FACT BOOK

APPENDIX

Business Portfolio

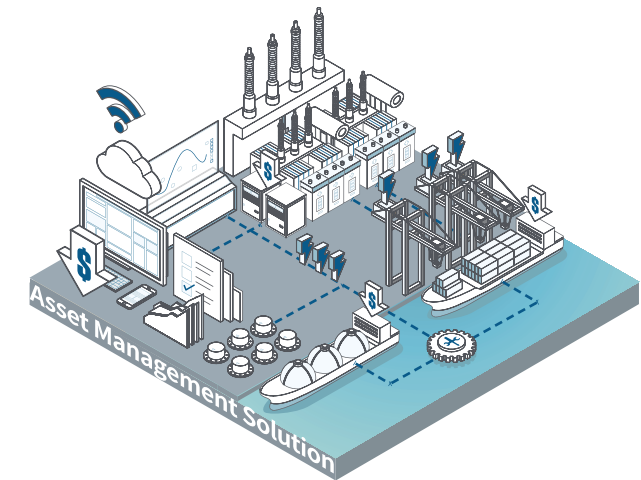
INTEGRICT

“INTEGRICT” is an ICT solution that provides high energy efficiency and asset investment utility to clients and is divided into two areas: energy solutions and asset management solutions. It maintains and improves client assets in their best conditions so that clients can focus on their business growth while also providing insights that lead their businesses to success based on asset utilization analysis.



ENERGY SOLUTION

HD Hyundai Electric's Energy Solution business builds systems that enable the efficient use of electric power through integrated management of energy production, consumption, sales, and operations. Amid rising demand for renewable energy and structural shifts in the power industry, our INTEGRICT platform has attracted growing attention for its ability to enable efficient and intelligent energy management. Our Energy Storage System (ESS) is a customized solution that supports energy production, efficiency, and management. The Building Energy Management System (BEMS) maximizes energy efficiency in buildings by integrating analysis, operation, and control functions. The Factory Energy Management System (FEMS) creates optimal energy conditions in factories through centralized monitoring and management. Finally, our Microgrid solution supports decentralized power generation by enabling small-scale, self-sufficient smart systems.



ASSET MANAGEMENT SOLUTION

HD Hyundai Electric's Asset Management Solution business enhances overall operational efficiency by systematically managing the performance, risk, and maintenance costs of various assets throughout their product life cycle (PLC), and by providing tailored asset management solutions to meet each customer's specific needs. By integrating ICT platforms with major power facilities, we collect and analyze critical data to predict potential failures and manage operational performance accordingly. This proactive approach extends equipment lifespan and helps prevent unexpected breakdowns, ultimately improving facility reliability and overall performance.

OVERVIEW

- CEO Message
- Company Profile
- Business Portfolio
- ▶ **Business Highlight**
- Global Network

ESG MANAGEMENT

ESG FACT BOOK

APPENDIX

Business Highlight

Business Objectives and Implementation Plan

HD Hyundai Electric aims to become a world-class company by strengthening competitiveness and expanding its operations in each of its core business sectors. To this end, we have established the following implementation plans for 2024 to reinforce the competitiveness of our key businesses.



Business Achievements

New Product Development & Market Expansion

First independently developed 145kV SF₆-free GIS in Korea

Won a transformer order worth KRW 66 billion from a Swedish power company
* First entry into Sweden, the largest power-exporting country in Europe

Production Capacity Expansion

Completed construction of Ulsan Transformer Core Plant
* Expected to increase sales by approximately KRW 140 billion through integration of core production processes

Broke ground for new low- & medium-voltage circuit breaker plant in Cheongju
* Production capacity to double to 13 million units by 2030

External Awards

Received the "\$1 Billion Export Tower" award – first in Korea's power equipment industry

Received the Prime Minister's Commendation at the 21st Korea New Growth Management Awards (Industrial Technology category)

Financial Performance and Results

HD Hyundai Electric designs and supplies a wide range of electrical equipment and energy solutions essential to every stage of the power supply process. These products can be broadly classified into power equipment, distribution equipment, and rotating machinery, according to the stages of power supply.

Sales Performance by Product Category

(Unit: KRW 100 million)

Category	2022	2023	2024
Power Equipment	10,968	15,717	20,356
Rotating Machinery	4,047	4,868	5,372
Distribution Equipment & Others	6,028	6,442	7,495
Total Sales	21,043	27,027	33,223

Sales Performance by Major Market

(Unit: KRW 100 million)

Category	2022	2023	2024
North America	4,259	7,281	10,062
Middle East	3,904	5,651	8,105
Marine Products	2,308	3,698	4,349

Order Intake by Major Market

(Unit: USD million)

Category	2022	2023	2024
North America	1,022	1,779	1,766
Middle East	519	608	544
Marine Products	343	357	358

OVERVIEW

- CEO Message
- Company Profile
- Business Portfolio
- Business Highlight
- Global Network**

ESG MANAGEMENT

ESG FACT BOOK

APPENDIX

Global Network

HD Hyundai Electric has established overseas branches, subsidiaries, and R&D centers in key countries such as the U.S., China, and Germany. Based on these global footholds, we manufacture and supply electrical and electronic equipment and energy solutions for every stage of the power supply chain, supported by a broad international network.



Korea

- Seongnam Headquarters
- Seoul Office
- Yongin Reliability Center (Research, Development)
- Ulsan Plant (Design, Development and Production)
- Ulsan Seonam Plant (Design, Development and Production)
- Anseong Plant (Design, Production)

Overseas Sales Offices / Corporations

- HD Hyundai Electric America Corporation (USA)
- HD Hyundai Electric Texas LLC (USA)
- HD Hyundai Electric Europe GmbH (Germany)
- Osaka Branch (Japan)
- Riyadh Branch (Saudi Arabia)
- Dubai Branch (United Arab Emirates)
- Moscow Branch (Russia)
- Ho Chi Minh Branch (Vietnam)
- London Branch (United Kingdom)

Overseas Production / Research Centers

- HD Hyundai Electric Hungary Kft. (Hungary)
- HD Hyundai Electric Switzerland Ltd. (Switzerland)
- HD Hyundai Electric China Co., Ltd. (China)
- HD Hyundai Power Transformers USA, Inc. (USA)
- HD Hyundai Electric Arabia L.L.C (Saudi Arabia)
- HD Hyundai Electric Shanghai Ltd. (China)

ESG Governance
ESG Strategy
Double Materiality Assessment
Materiality Issue Analysis
Stakeholder Engagement
and Communication
ESG Highlight

ESG MANAGEMENT

ESG Governance	16
ESG Strategy	17
Double Materiality Assessment	18
Materiality Issue Analysis	20
Stakeholder Engagement and Communication	22
ESG Highlight	23



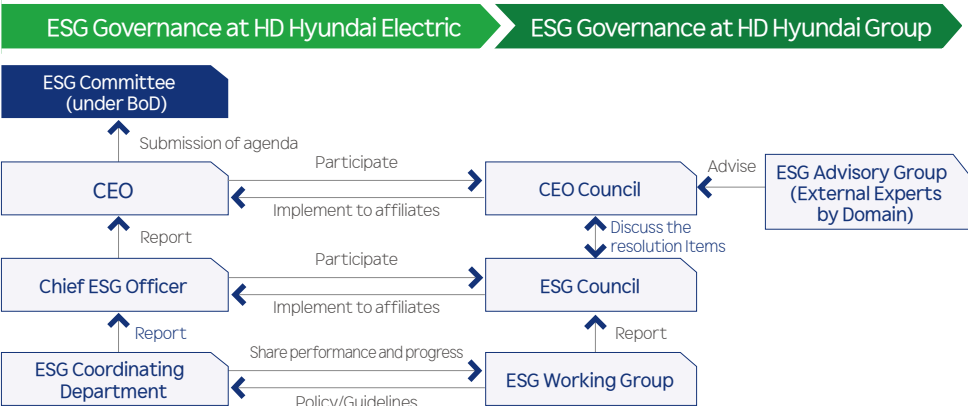
» ESG Governance

- ESG Strategy
- Double Materiality Assessment
- Materiality Issue Analysis
- Stakeholder Engagement and Communication
- ESG Highlight

ESG Governance

ESG Governance at HD Hyundai Electric

HD Hyundai Electric has established an ESG governance system that is closely integrated with the HD Hyundai Group's ESG structure, thereby strengthening the company's enterprise-wide capacity to manage emerging non-financial risks and opportunities. The ESG Committee, under the Board of Directors—the company's highest decision-making body—deliberates and oversees ESG strategies, goals, and performance. The ESG Management Team, in close collaboration with the Group, is responsible for implementing ESG-related initiatives and ensuring the systematic and sustainable execution of ESG management.



Roles of ESG Governance Bodies

Category	Composition	Key Responsibilities
ESG Committee	Four inside and independent directors, including Chairperson Soonok Jeon	- Review and approve the direction, plans, and implementation of ESG strategy - Review matters related to the company's social responsibility - Identify support needs for developing and embedding ESG capabilities throughout the organization
ESG Council	Chief ESG Officers of HD Hyundai Group affiliates	- Share ESG issues related to each affiliate's core business - Review medium- to long-term directions, action plans, and implementation progress
ESG Working Group	ESG Coordinating Departments of HD Hyundai Group affiliates	- Share ESG performance and current progress across affiliates - Discuss collaboration measures for identifying and effectively implementing ESG initiatives

ESG Committee

To enhance corporate and shareholder value through strengthened ESG management, HD Hyundai Electric has established an ESG Committee under the Board of Directors. The committee is responsible for reviewing and approving the company's ESG strategic direction, plans, and implementation-related matters. The ESG Committee is composed of three or more directors, with a majority being independent directors. Regular meetings are held annually, and ad hoc meetings are convened as needed to deliberate on key issues related to the company's sustainability management.

ESG Committee Meeting Summary

Date	Agenda Item	Decision /Report	Attendance Rate (%)
Feb. 2, 2024	Approval of 2024 ESG Action Plan	Approved	100%
	Review of ESG Committee Agenda and Benchmarking of Peer Companies	Reported	100%
Apr. 23, 2024	Report on ESG Materiality Assessment Results and Key ESG Activities	Reported	100%
Dec. 16, 2024	Approval of 2025 ESG Action Plan	Approved	100%
Apr. 22, 2025	Report on ESG Materiality Assessment Results	Reported	100%

ESG Council

To promote synergies and integration in ESG initiatives across the group, HD Hyundai Group operates a group-wide ESG governance framework centered on HD Korea Shipbuilding & Offshore Engineering. As a member of the ESG Council, HD Hyundai Electric participates in discussions and shares key ESG issues relevant to the company.

ESG Council & Working Group Meeting Summary

Category	Date	Key Agenda Items
ESG Council	2024.02.27 (1st)	2023 major achievements and 2024 key initiatives by company - Discussion on group-level ESG direction
	2024.08.28 (2nd)	- Progress on company-level carbon neutrality roadmaps - Need and direction for group ESG platform
	2024.12.20 (3rd)	- Outlook on ESG post-U.S. presidential election (Special Lecture) - Report on 2024 GHG emissions status
ESG Working Group	2024.02.26 (1st)	- Sharing 2024 key initiatives by company - Sharing and discussion on implementation plans by company
	2024.12.06 (2nd)	- Outlook on ESG post-U.S. presidential election (Special Lecture) - Sharing 2025 ESG plans by company

ESG Strategy

ESG Vision

HD Hyundai Electric continuously pursues innovation and bold challenges to create tomorrow's possibilities with today's technologies. In response to the pressing issues facing humanity—such as the transition to a low-carbon society and the realization of a future energy ecosystem—we have established our ESG strategy to deliver new solutions and grow together with all stakeholders.

ESG Vision	A trusted company that creates sustainable value		
ESG Slogan	Efficiency, Sustainability and Growth		
ESG Strategy Direction	Creating Environmental Impact	Pursuing Shared Growth	Ensuring Transparency & Compliance
	Creating environmental value through sustainable practices	Fostering shared growth through stakeholder mutual respect and engagement	Practicing fair and transparent ESG management
ESG Core Tasks	- Expand business portfolio through low-carbon products and services - Increase use of renewable energy	- Support ESG implementation among suppliers - Strengthen respect for human rights - Expand support for vulnerable groups in local communities	- Strengthen transparency and soundness of corporate governance - Enhance shareholder value

ESG Initiative

TCFD



In October 2022, HD Hyundai Electric declared its support for the Taskforce on Climate-related Financial Disclosures (TCFD). The company transparently discloses climate action information and is aligning its GHG targets and green technologies with global standards.

CDP



Since 2022, HD Hyundai Electric has participated in the Carbon Disclosure Project (CDP), transparently disclosing climate change and environmental data. The company is developing systematic strategies to address climate risks and opportunities.

K-RE 100



To expand its use of renewable energy, HD Hyundai Electric joined Korea's RE100 (K-RE100) program in 2022. The company has set implementation targets and is gradually converting its electricity consumption to renewable sources.

UN SDGs(Sustainable Development Goals)



HD Hyundai Electric is committed to supporting the UN Sustainable Development Goals (SDGs), which aim to solve global issues such as poverty and environmental challenges and promote sustainable development.

UN Global Compact



Since joining the UN Global Compact (UNGC) in September 2021, HD Hyundai Electric has been incorporating the Compact's 10 principles across four key areas—human rights, labor, environment, and anti-corruption—into its business operations and strategy.

Double Materiality Assessment

Overview of the Double Materiality Assessment

HD Hyundai Electric conducts an annual double materiality assessment to identify key issues related to corporate sustainability and to effectively respond to major environmental and social impacts, risks and opportunities, and stakeholder demands. This process reflects the topic selection procedures of the Global Reporting Initiative (GRI) Standards and incorporates the double materiality guidelines of the European Sustainability Reporting Standards (ESRS).

The assessment considers both impact materiality—how the company’s business activities affect the environment and society—and financial materiality—how external environmental and social factors impact the company’s financial performance. Based on this assessment, material topics are identified and used to formulate and implement HD Hyundai Electric’s sustainability strategy. These issues are also reviewed in connection with its enterprise risk management framework, ensuring a fully integrated approach to managing sustainability-related risks and opportunities. The potential impacts, risks, and opportunities of each issue are continuously evaluated and incorporated into strategic planning, while implementation progress is systematically monitored to ensure alignment with overall corporate objectives.

Double Materiality Assessment Process

HD Hyundai Electric reviewed international reporting standards—including ESRS, GRI Standards, ISSB, and SASB—as well as ESG trend reports from organizations such as MSCI and the World Economic Forum (WEF), and case studies from industry peers to identify key sustainability topics. In addition, the company conducted a comprehensive review of internal documents, including business strategies, executive KPIs, and past ESG issues, to define a pool of 17 potential sustainability issues. Each identified issue was evaluated in terms of its impact, risks, and opportunities, and analyzed from both impact materiality and financial materiality perspectives. Based on this analysis, five key material topics were ultimately selected. The overall process and results were reviewed and confirmed by the ESG Committee under the Board of Directors, and the credibility and transparency of the assessment were further enhanced through independent third-party verification.

In particular, this year, the issue pool was expanded to more comprehensively reflect relevant sustainability topics. HD Hyundai Electric also broadened stakeholder engagement by collecting diverse feedback from employees and supply chain stakeholders. The company will continue to enhance the double materiality assessment framework to ensure increasingly refined and reliable outcomes.

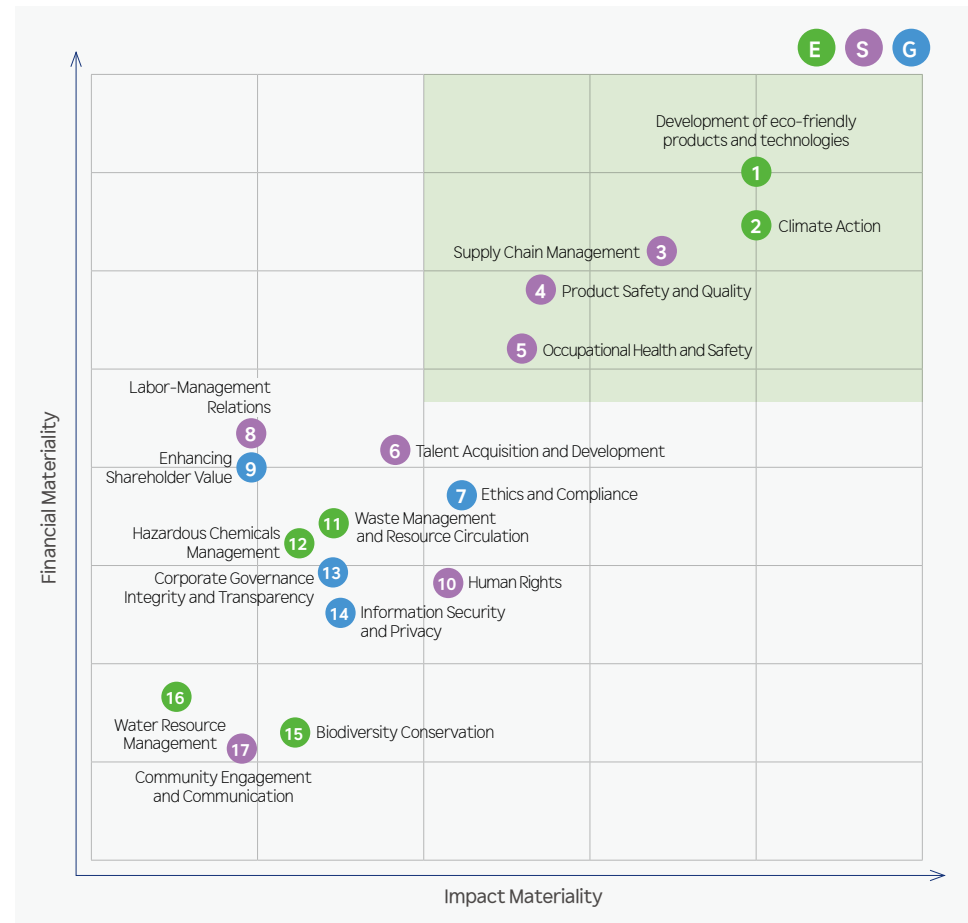


Double Materiality Assessment

Double Materiality Assessment Results

Materiality Assessment Matrix

HD Hyundai Electric conducted a comprehensive analysis that considered both environmental and social impacts as well as financial implications. Based on the results of this analysis, topics were prioritized, leading to the identification of five key material topics.



Materiality Assessment Results

● High ○ Medium ○ Low

Category	Rank	Topic	Impact Assessment		Rank Change	Report Page
			Impact Materiality	Financial Materiality		
Environmental	1	Development of eco-friendly products and technologies	●	●	▲1	26-29
Environmental	2	Climate Action	●	●	▲1	30-38
Social	3	Supply Chain Management	●	●	▲2	78-83
Social	4	Product Safety and Quality	●	●	▼3	85-87
Social	5	Occupational Health and Safety	●	○	▼1	70-77
Social	6	Talent Acquisition and Development	○	○	▲3	60-69
Governance	7	Ethics and Compliance	○	○	▼1	94-98
Social	8	Labor-Management Relations	○	○	New	60
Governance	9	Enhancing Shareholder Value	○	○	New	106-108
Social	10	Human Rights	○	○	-	56-59
Environmental	11	Waste Management and Resource Circulation	○	○	▼4	45-46
Environmental	12	Hazardous Chemicals Management	○	○	New	47
Governance	13	Corporate Governance Integrity and Transparency	○	○	▼5	99-105
Governance	14	Information Security and Privacy	○	○	New	111-113
Environmental	15	Biodiversity Conservation	○	○	▼3	48-54
Environmental	16	Water Resource Management	○	○	▼5	43-44
Social	17	Community Engagement and Communication	○	○	New	88-92

Changes in Material Topics

- Out of a total of 17 sustainability topics, five were identified as material topics: Development of eco-friendly products and technologies(E), Climate Action(E), Supply Chain Management (S), Product Safety and Quality(S), and Occupational Health and Safety(S). These topics were assessed as having the highest level of importance, in the order listed above.
- Compared to the previous year, there were no changes in the composition of material topics. However, in the environmental category, Development of eco-friendly products and technologies and Climate Action demonstrated increased importance in both impact materiality and financial materiality. In the social category, Supply Chain Management also showed heightened significance from both materiality perspectives.

Material Issue Analysis

Analysis of Material Topics Related to External Stakeholders

Topic	① Development of eco-friendly products and technologies	② Climate Action	③ Supply Chain Management	④ Product Safety and Quality	⑤ Occupational Health and Safety
Relevance and Importance to External Stakeholders	- In line with the global energy transition, the company has developed products such as SF₆-free GIS that emit fewer greenhouse gases compared to conventional alternatives, thereby contributing to climate change mitigation by reducing emissions during the product use phase. - To minimize environmental impact, the company is actively expanding its presence in the low-risk, high-efficiency equipment market—driven by growing demand for safer transformers and the electrification trend—offering users and the broader market greater opportunities for sustainable and responsible consumption.	- The company's implementation of a carbon neutrality roadmap contributes to global efforts to limit global warming to 1.5°C by reducing greenhouse gas emissions. - With a goal of achieving net-zero emissions by 2050, the company has outlined a roadmap that incorporates energy efficiency enhancements, a transition to renewable energy, and carbon offsetting measures across its operations. - As product manufacturing relies on both direct fossil fuel-based energy and indirect electricity-based energy, increased production volumes may lead to higher emissions. Without sufficient emissions reduction efforts, this could exacerbate the company's negative climate impact and fall short of meeting stakeholder expectations and concerns.	- To foster a healthy corporate ecosystem, the company has established a shared growth policy and provides support to suppliers in fulfilling their social responsibilities. - An ESG risk assessment system is in place to proactively identify potential risks and facilitate improvement activities that help suppliers establish robust ESG management systems. - These efforts aim to strengthen the long-term competitiveness of small and medium-sized suppliers in line with global ESG standards.	- The company manufactures and supplies electrical and electronic equipment across the entire power supply chain and has implemented policies to ensure the safe use of its products and services in the field. - It maintains quality management system certifications and continuously strengthens product reliability through systematic management activities. - Due to the nature of its products, any quality or safety issue may affect not only direct customers but also other stakeholders who depend on a stable power supply.	- In compliance with domestic and international occupational safety and health regulations, the company is improving workplace environments, managing hazardous factors, and fostering a health-friendly organizational culture to enhance the safety capabilities of its contractors. - The company evaluates safety competencies during contractor selection, conducts regular safety training and assessments, and strives to ensure both the physical protection and mental well-being of contractor employees. - While both routine and ad-hoc risk assessments are performed, certain high-risk processes remain, and some workers are still exposed to harmful agents such as volatile organic compounds (VOCs), dust, and noise.
Type of Impact	Positive	Positive/Negative (Neutral)	Positive	Positive/Negative (Neutral)	Positive/Negative (Neutral)
Value Chain	- Business Operations - Products and Services	- Business Operations - Supply Chain - Products and Services	- Business Operations - Supply Chain	- Business Operations - Supply Chain - Products and Services	- Business Operations - Supply Chain - Products and Services
Impact Area / Stakeholders	- Environment/Society - Supply Chain, Customers	- Environment/Society - Employees, Supply Chain, Customers, Local Communities, etc.	- Society - Supply Chain	- Society - Supply Chain, Customers	- Society - Employees, Supply Chain, Customers
Output Indicator	GHG reduction during product use (Scope 3)	- GHG reduction (Scope 1, 2) - Renewable energy ratio	- Supply chain ESG assessments and improvements - Financial support for partner companies	Cost of failure relative to revenue	- Health-Friendly Company (Corporate Health Promotion Index) - Safety and health training - Occupational Health and Safety Management System
Impact Indicator	- GHG emissions per product - Social cost per ton of GHG	- GHG emissions at business sites (Scope 1, 2) - Social cost per ton of GHG	Supply chain revenue growth rate	Customer satisfaction	Number of workers affected by industrial accidents

- ESG Governance
- ESG Strategy
- Double Materiality Assessment
- Materiality Issue Analysis
- Stakeholder Engagement and Communication
- ESG Highlight

Material Issue Analysis

Analysis of Material Topics Related to Corporate Value Creation

Topic	① Development of eco-friendly products and technologies	② Climate Action	③ Supply Chain Management	④ Product Safety and Quality	⑤ Occupational Health and Safety
Business Factors	- Global efforts to reduce carbon emissions and expected increase in electricity demand driven by AI - Expanded adoption of environmentally sustainable products such as SF₆-Free power equipment in major markets like the U.S. and EU - Growing demand for low-impact products and services such as energy efficiency solutions	- Increased acute (e.g., heatwaves, typhoons) and chronic (e.g., rising average temperatures) physical risks due to climate change - Stricter GHG emissions regulations (e.g., emissions trading schemes, EU CBAM) and introduction of climate-related policies - Rising stakeholder demands for climate mitigation and adaptation	- Strengthened global regulations and policies on supply chains such as the EU CSDDD - Increasing expectations to manage Scope 3 (supply chain) emissions and adopt sustainable sourcing criteria - Raw material supply instability due to geopolitical risks including U.S.-China trade tensions, the Ukraine war, and Middle East conflicts	- Tighter global technical certifications, safety regulations, and standards for power equipment - Need for a preventive quality control system due to significant ripple effects of failures in power equipment	- Strengthening of safety and health-related laws such as the Serious Accidents Punishment Act and Occupational Safety and Health Act - Growing stakeholder expectations for building safety and health management systems - Direct and indirect costs and social responsibility in response to safety incidents at company and supplier sites
Impact on Business (Risks/Opportunities)	- Revenue growth through expansion of high-efficiency and low-carbon product markets - Enhanced corporate value through positive reputation from environmentally sustainable product sales - Capital expenditure and R&D costs for environmentally sustainable product and technology development	- Emissions trading costs from exceeding GHG emission limits - Investment in high-efficiency facilities and renewable energy transition to reduce emissions - Increased sales from growing share of renewables and electrification-related products	- Substitution costs due to ESG issues with suppliers, including the need to find alternatives - Meeting supply chain management expectations can attract capital from global clients and investors - Cost savings through stable sourcing and productivity improvements via supplier competitiveness	- Costs for reliability testing and quality control - Potential costs related to product recalls, replacements, or refunds due to defects - Market share gains in the power equipment industry through high-quality products - Enhanced brand image and customer loyalty through quality-focused offerings	- Potential legal penalties or compensation liabilities from industrial accidents - Costs associated with establishing safety and health management systems
Business Strategy	- Strengthen digital solutions, environmentally sustainable devices, and core technologies for new power systems in response to key industry trends (electrification, decarbonization, decentralization, digitalization) - Secure future growth engines through timely development and lineup expansion of environmentally sustainable products - Prepare for global environmental/efficiency regulations and electrification demands	- Develop phased GHG reduction roadmap for achieving 2050 carbon neutrality - Prioritize Scope 2 reduction and achieve RE100 by 2040 - Expand SF₆-Free products and offset activities to reduce 100% of 2021 emissions by 2050	- Establish policies and support programs to strengthen ESG partnerships across the supply chain - Operate a stepwise evaluation and improvement system to detect and manage partner companies ESG risks early	- Build a proactive quality management system to ensure reliable product performance, including advanced inspection systems, digital quality talent development, and ongoing quality innovation - Operate HE-QMS quality data platform to promote data-driven quality management - Run dedicated teams for supplier quality to enhance process and quality capabilities	- Operate an ISO 45001-compliant safety and health management system - Conduct monthly CEO-led safety meetings and inspections by responsible officers - Preventive safety system including hazard checks, regular risk assessments, and scenario-based planning - Support supplier safety improvement through inspections, training, and evaluations
Indicators and Targets	- Short-term (2023–2025): Establish entry base for environmentally sustainable markets - Mid-term (2026–2028): Expand product lineup for emerging environmentally sustainable markets - Long-term (2029–2030): Diversify business scope in new environmentally sustainable markets	Long-term (by 2030): RE34 target	- Advance ESG systems of suppliers (expand ESG assessments and support programs) - Expand supplier support initiatives	Continuously reduce cost of failure as a share of sales	Mid-term (by 2028): Zero serious accidents; industrial accident rate 0.103¹⁾; customized incident frequency rate 0.180
2024 Achievements	- Developed 145kV SF₆-Free high-voltage circuit breaker and permanent magnet-type shaft generator - Acquired international explosion-proof certification for low-voltage motors 'HiPDS' next-gen distribution system received global design award	- Saved 889,604 kWh of electricity in 2024 through energy-saving efforts - Reduced 415 tCO₂eq of GHG emissions in 2024	- Conducted ESG risk assessments on 61 suppliers in 2024 - Supported risk mitigation for high-risk suppliers	Reduced cost of failure in 2024 by 59.8% compared to 2021	- Achieved zero serious accidents in 2024 - Industrial accident rate: 0.033¹⁾ - Customized incident frequency rate: 0.221
Executive KPIs	Development of environmentally sustainable technologies and products	Improvement of GHG emissions intensity	Enhanced supplier engagement for supply chain stability	Reduction of cost of failure as a share of sales	Prevention of serious accidents

1) Industrial accident rate: Based on combined data from employees and in-house partner companies

Stakeholder Engagement and Communication

HD Hyundai Electric defines shareholders, investors, employees, business partners, and government entities as key stakeholder groups that exchange diverse values and impacts within the ESG context. The company manages and responds to ESG issues by stakeholder group and maintains tailored communication channels accordingly. Through its corporate governance charter, HD Hyundai Electric explicitly recognizes stakeholder rights and emphasizes the company's responsibility to protect consumers, ensure fair trade, and support stakeholder participation in governance oversight. The company remains committed to maintaining open and sincere communication with stakeholders through a variety of engagement channels going forward.

Step 1. Identification and Definition of Key Stakeholders		Step 2. Stakeholder Communication	Step 3. Identification of Stakeholder Concerns	Step 4. Reflection in Management Activities
Stakeholder Group	Definition	Communication Channels	Key Topics of Interest	Related Management Activities
Customers 	Stakeholders who purchase HD Hyundai Electric's products or receive services from the company	- Customer satisfaction surveys - Customer service center - Social media (Instagram, LinkedIn, etc.)	- Strengthening product and technology competitiveness - Development of environmentally sustainable and high-value-added products - Enhancing product safety - Improving customer communication experience	- Quality training for employees - Certification of green products and technologies - Continuous product R&D
Shareholders and Investors 	Stakeholders who provide financial capital to support HD Hyundai Electric's sustainable growth and business strategies	- Investor relations meetings - General shareholders' meetings - Business report disclosures - Website	- Enhancing shareholder value - Ensuring stable business performance - Managing business risks and opportunities - Establishing sound governance	- Disclosure of board resolutions - Implementation of electronic voting system - Advance notice of general meeting agendas - Implementation and codification of proxy voting system - Increase in dividends per share
Employees 	Internal members of HD Hyundai Electric who play a central role in executing business activities and delivering performance across functions such as product development, manufacturing, sales, and support.	- Labor-management council - Grievance handling system - Intranet and newsletters - Management briefings - Safety management meetings	- Fair evaluation and compensation - Enhancing employee benefits - Education and training - Promoting cooperative labor-management relations - Operating a safe workplace environment	- Operation of labor-management council - Training programs and human rights education - Retirement planning support - Family-friendly company certification - Implementation of PC-OFF system (automatic PC shutdown policy) - Establishment of the Human Rights Committee - Human rights impact assessments
Partner Companies 	Stakeholders who supply raw materials, components, or services necessary for production	- Regular meetings with partner companies - Partner company grievance resolution system - Partner Companies Council	- Promoting shared growth - Strengthening fair trade - Supporting partner companies capability development - Partner companies occupational safety and health - Responsible supply chain management	- Financial and ESG management support for partner companies - Fair trade system operation - Technical support programs - Grievance channels for safety and health
Local Communities 	Stakeholders impacted by the company's business operations, including nearby residents, civic groups, and local governments	- Local government councils - Civic and volunteer groups	- Community development - Promoting industrial growth and local employment - Respecting environmental and human rights - Social contribution activities - Strengthening communication	- Talent development programs - Support for the socially vulnerable - Regional development investments - Salary-sharing campaign with employee participation - Employee-led volunteer and social contribution activities
Government 	Stakeholders that influence the company's operations by setting regulations and industrial policies	- Policy advisory bodies - Policy roundtables - Visits to National Assembly and government ministries	- Supporting government policies - Participation in and support for government events - Sharing industry and company information - Revitalizing the local economy - Managing safety and labor issues	- Operation of fair trade compliance programs - R&D investment in environmentally sustainable energy - Participation in key industry associations
Media 	Stakeholders that disseminate the company's business activities through news media such as broadcast, newspapers, magazines, news agencies, and online media outlets	- Press releases - Website - Media meetings	- Business performance and industry trends - Key company-wide issues - Strategic business directions	- Press release distribution - Website news updates - Media coverage support - Press briefings

ESG Highlight

First in Korea, developed using
proprietary technology

Developed
**145kV
SF₆-Free
GIS**



Key component for ship electrification

Developed
**High-Capacity
Low-Voltage
Drive (LV VFD)**



RE100 Progress

Achieved RE3 in 2024
**Targeting
RE10 by 2025**



Habitat Protection for Siberian
Flying Squirrels

Habitat traces
in Dec. 2024,
area of presence
expanding



Stronger Supplier Support

**Launched online
recruitment
platform for
suppliers**



Since 2022

**Zero Serious
Accidents**

Industrial accident
rate in 2024
0.033 %



Established Social Contribution Slogan

**Transformation
for ALL**



In North America

**Expanded
Community
Engagement**



Korea Institute of Corporate Governance
and Sustainability ESG Evaluation

Received top rating
A+



Under the Board of Directors

**Established
Compensation
Committee**



Dividend Payout Ratio

**Achieved 40%
Dividend Payout Ratio
and introduced
quarterly
dividends**



Selected as a Value-Up Excellence
Company

**Awarded by the
Deputy Prime
Minister for
Economy**



ESG FACT BOOK

Environmental

Products and Technology Development	26
▸ Material Issue	
Climate Action ▸ Material Issue	30
Environmental Management	39
Resource Circulation and Chemicals	45
Biodiversity	48

Social

Human Rights	56
Talent Management	60
Health and Safety ▸ Material Issue	70
Supply Chain Management ▸ Material Issue	78
Raw Materials	84
Product Safety and Quality ▸ Material Issue	85
Local Community	88

Governance

Ethics and Compliance	94
Corporate Governance	99
Shareholder Value	106
Risk Management	109
Information Security and Privacy	111



Environmental

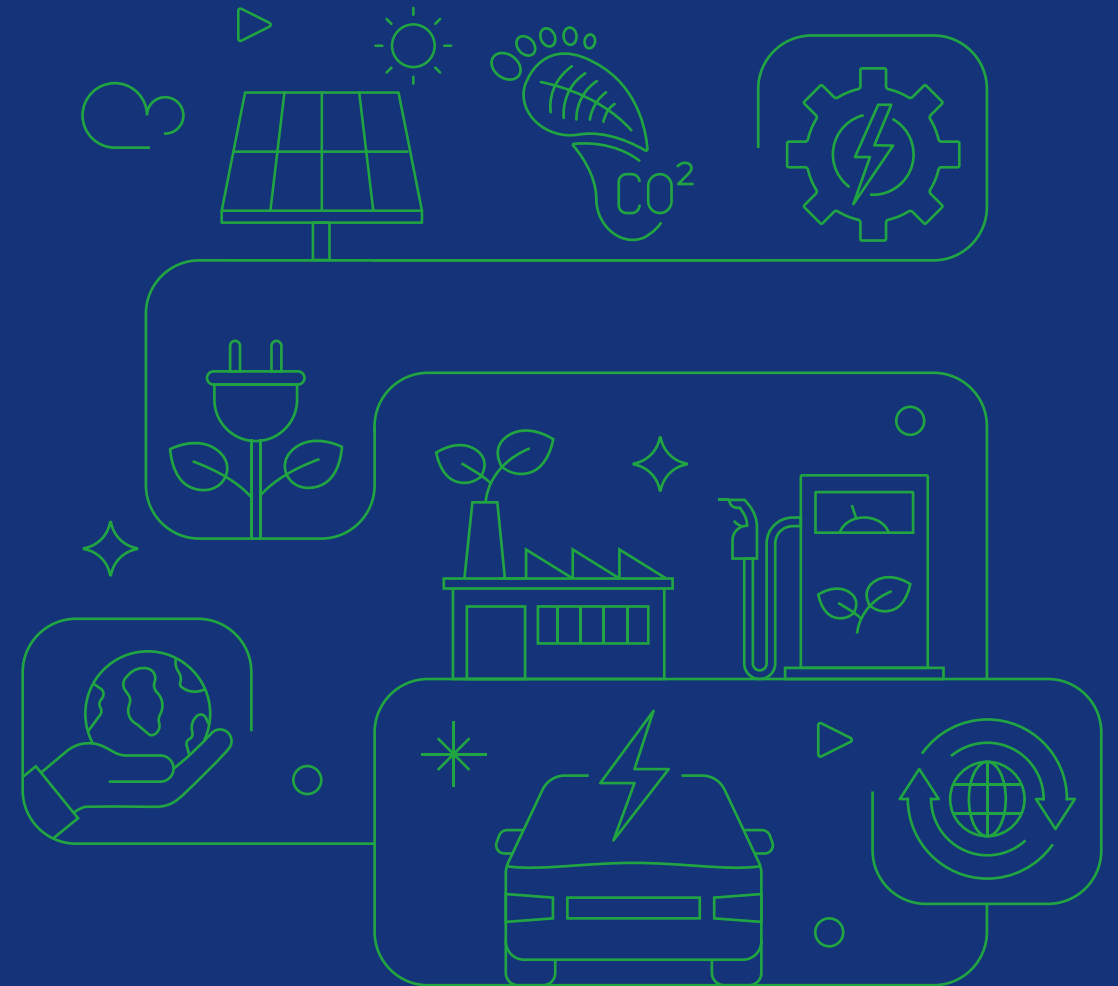
Products and Technology Development ▶ Material Issue **26**

Climate Action ▶ Material Issue **30**

Environmental Management **39**

Resource Circulation and Chemicals **45**

Biodiversity **48**



Environmental

▶ **Products and Technology Development**

▶ Material Issue

Climate Action ▶ Material Issue

Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

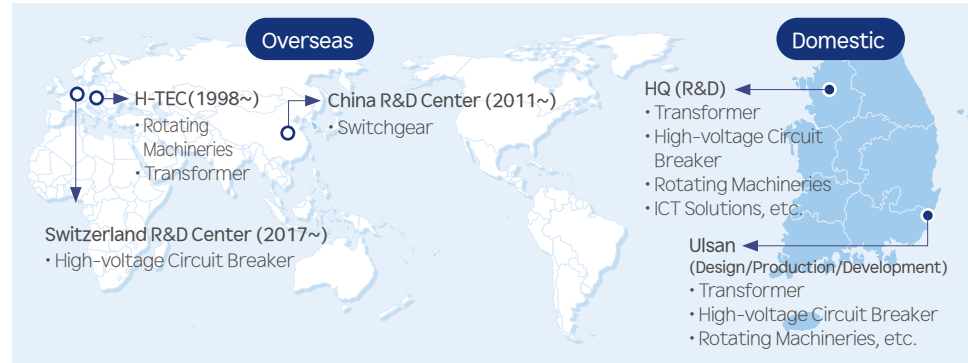
Governance

Products and Technology Development

Governance of Products and Technology Development

To elevate the role of R&D and strengthen its strategic foundation, HD Hyundai Electric established the Future Technology Committee in 2023 through a systematic research planning approach. The committee, supported by its working-level bodies, identifies future growth-driving technology items in five key areas—ICT, environmentally sustainable solutions, and DC technology, among others—and presents them to executive management meetings for focused discussion in terms of business viability, technological value, and alignment with corporate strategy.

In addition, the company's R&D centers located in Korea (Pangyo, Yongin, Ulsan) and overseas (Hungary, Switzerland, China) are actively developing market-oriented optimal technologies in electrical and electronic systems, including transformers, high-voltage circuit breakers, rotating machineries and ICT-based power equipment.



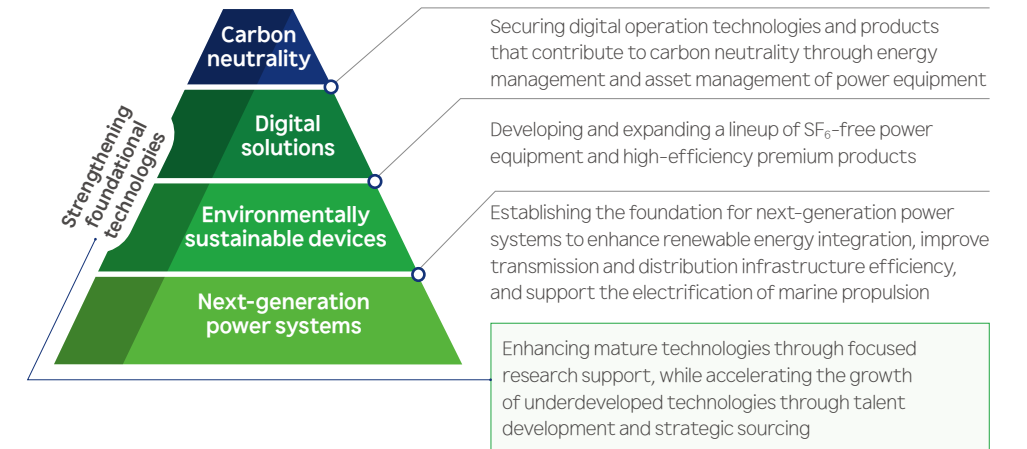
Products and Technology Development Management

HD Hyundai Electric holds regular TRM (Technology Roadmap) and PRM (Product Roadmap) meetings each year to establish its product and technology strategies. These meetings serve to identify and select strategic R&D initiatives for the following year. In the second half of 2024, TRM and PRM meetings were held to identify candidate projects for 2025, which were then reviewed and finalized through a structured deliberation process. Prior to these meetings, the company convenes its Future Technology Committee to evaluate project-level strategies aligned with its mid- to long-term business direction. These strategies are subsequently translated into product-specific development tasks through the TRM and PRM process.

Products and Technology Development Strategy

The energy industry, once one of the most conservative and stable sectors, is now entering a period of major transformation driven by the issue of carbon neutrality. Related trends in the power sector include: (1) increased electricity use in final energy consumption due to electrification, (2) the expansion of renewable generation and distributed energy sources for decarbonization, (3) growing decentralization to respond to electricity demand changes, (4) the emergence of new business models based on digitalization, such as energy efficiency solutions, power trading, and EV charging. In response, HD Hyundai Electric is striving to set a new standard for future power technologies that reflect environmental considerations. The company is actively addressing the carbon neutrality market by developing (1) digital solutions, (2) environmentally sustainable devices, and (3) next-generation power systems, supported by the strengthening of foundational technologies.

HD Hyundai Electric R&D Strategy



R&D Process

STEP 1 Business Strategy	STEP 2 Technology Development Strategy	STEP 3 Project Selection	STEP 4 Business Planning	STEP 5 Project Approval
Establish short-term sales plan	Select core technologies and establish PPM/TRM	Identify and review R&D projects	Finalize next year's R&D projects	Initiate development

Environmental

Products and Technology Development

► Material Issue

Climate Action ► Material Issue

Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

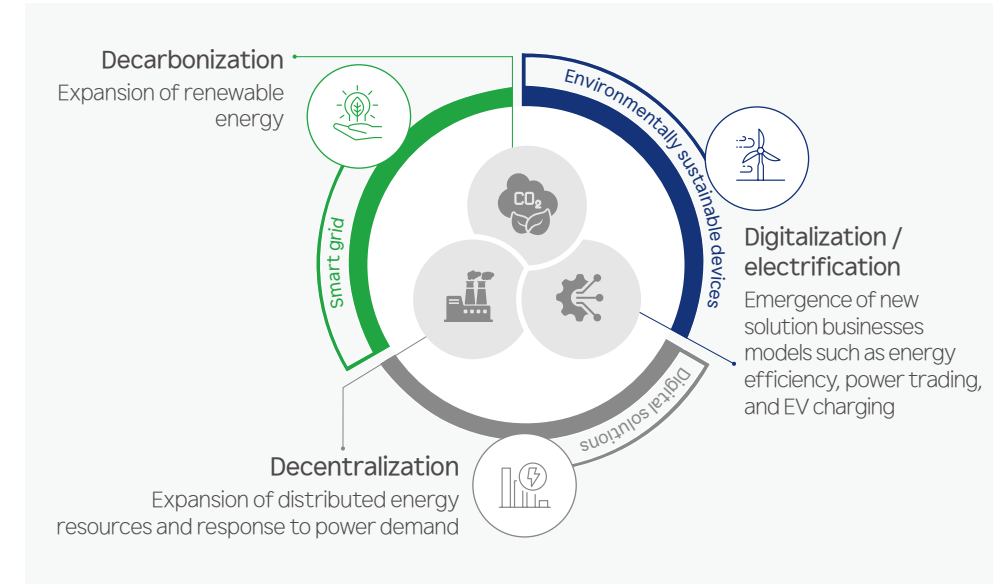
Products and Technology Development

Activities to Strengthen R&D Capabilities and Secure New Growth Engines

HD Hyundai Electric is actively building an open industry-academia collaboration system with major universities in Korea, aiming to secure advanced technologies and foster core talent as a foundation for leading the future power industry. In March 2024, the company signed its first partnership with Korea Advanced Institute of Science and Technology (KAIST) and established a collaboration model based on integrated R&D funding. This initiative allows the company to proactively acquire new technologies it does not currently possess, while fostering synergies between academia and industry by linking the partnership to talent recruitment. The company plans to continue expanding such collaborations with major domestic universities.

In 2024, a technology-focused "Working Group" was newly established within the R&D organization to address limitations that may arise from the existing product group-based structure. Experts in key technical areas—such as insulation, thermal-fluid dynamics, and artificial intelligence (AI)—are participating in the working group, promoting autonomous collaboration and in-depth research to enhance technological competitiveness. The outcomes of these efforts will be actively reflected in development roadmaps and mid-to-long-term investment plans. In parallel, an organic collaboration system has been established among sales, design, development, and R&D departments for each product group. Through technology development councils by product line, the company is strategically carrying out R&D activities closely aligned with revenue growth.

Future Outlook of the Power Industry



Short- and Mid-to-Long-Term Products and Technology Development Roadmap

Short-term (2023–2025)	Mid-term (2026–2028)	Long-term (2029–2030)
- Laying the foundation for carbon-neutral products/solutions - Reestablishing foundational technology capabilities	- Expanded development of carbon-neutral products/solutions - Product innovation through application of foundational technologies	- Development of next-generation carbon-neutral products/solutions - Development of next-generation design and production foundational technologies
- Development and verification of electric propulsion/DC low-voltage products and grid-connection engineering technologies - Development of new environmentally sustainable devices - Securing core technologies for facility/energy management and digital substations	- Expansion and standardization of electric propulsion/DC low-voltage products and packages - Broadening the lineup of environmentally sustainable devices - Expanded development of core digital substation equipment and platform technologies	- Development of electric propulsion/DC medium-voltage products and hybrid AC/DC grid engineering technologies - Development of large-capacity and premium-grade environmentally sustainable devices - Development of next-generation technologies for smart power/distribution equipment and maintenance of electrical facilities
Strengthening design-based technologies and securing production base technologies	Development of new products utilizing materials technologies and enhancement of AI-based production technologies	Development of digital twin-based core technologies and future production system technologies

Environmental

▶ Products and Technology Development

▶ Material Issue

Climate Action ▶ Material Issue

Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

Products and Technology Development

Products and Technology Development Achievements

First in Korea: Development of 145kV SF₆-Free GIS

SF₆-Free GIS is a key piece of power equipment for achieving carbon neutrality. The product developed by HD Hyundai Electric replaces conventional SF₆ (sulfur hexafluoride) gas with C₄(F₇N), reducing greenhouse gas emissions by up to 99%. This development marks not only the first of its kind in Korea, but also a significant achievement accomplished entirely through in-house technology—without any technical partnerships with overseas companies. It demonstrates the company's proven R&D capabilities, which have been continuously strengthened through sustained investment. Meanwhile, demand for SF₆-Free GIS is rapidly increasing, particularly in Europe, in line with strengthened carbon neutrality policies. According to the Gouden Report, a global power market research agency, the European high-voltage circuit breaker market is projected to reach approximately KRW 2.6 trillion by 2025. Building on the success of the 145kV SF₆-Free GIS, HD Hyundai Electric plans to accelerate efforts to enhance its competitiveness and expand market share in Europe and other regions with stringent environmental regulations.



145kV SF₆-Free GIS (Gas Insulated Switchgear)

First in Korea: Development of Large-Capacity Low-Voltage Drive (LV VFD¹⁾) for Marine Applications

As part of its efforts to develop environmentally sustainable marine technologies, HD Hyundai has successfully developed Korea's first large-capacity low-voltage variable frequency drive (LV VFD) for ships. The equipment was jointly developed by HD Korea Shipbuilding & Offshore Engineering, HD Hyundai Electric, and HD Hyundai PLASPO. In November 2024, HD Hyundai Electric held a successful demonstration of a 3 MVA-class marine VFD at its Ulsan rotating machinery plant. Marine VFDs are essential equipment that precisely control motor speed to maximize the efficiency of power generation. In particular, when applied to shaft generator systems, they automatically adjust to changes in rotational speed that occur during ship operation, thereby enabling stable power supply. The latest VFD offers improved control performance and stability compared to previous models and enables autonomous and stable power grid operation on ships through grid-forming technology. It is also designed to control motors with high precision without the need for separate position or speed sensors, reducing system complexity and improving maintenance efficiency.

1) VFD: Variable Frequency Drive

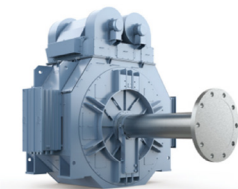


Demonstration test of large-capacity low-voltage drive (LV VFD) for marine applications

Development of Large-Capacity Permanent Magnet Shaft Generator

The rotating machinery division of HD Hyundai Electric has recently completed the development of a large-capacity permanent magnet (PM) shaft generator (4–5 MW class) for container vessels. A shaft generator is a component that generates electrical power for the ship by utilizing the rotational energy of the main propulsion engine during sailing, and can also function as a motor for propulsion. It is considered a key solution for complying with increasingly stringent environmental regulations, such as the Energy Efficiency Design Index (EEDI)²⁾ and the Carbon Intensity Indicator (CII)³⁾. The newly developed shaft generator applies high-performance neodymium (NdFeB) permanent magnets to the rotor, improving generation efficiency by up to 3% compared to conventional squirrel-cage or wound synchronous machines. This enhancement allows for greater energy efficiency and fuel cost savings. In addition, the increased energy density enables shipowners and system integrator (SI) clients to reduce the size and weight of their systems. The model has a maximum output of 5.5 MW at 49 rpm, making it suitable for large container vessels. With growing market interest, it is expected to contribute to increased sales in the rotating machinery business. Furthermore, the rotating machinery division is currently developing an SPM (Surface Permanent Magnet) type shaft generator. Building on its accumulated expertise from the development and delivery of its PM shaft generator series, the division is focused on reducing rotor weight and improving assembly methods. The new model is scheduled for completion within this year, with the aim of further enhancing product competitiveness.

2) EEDI (Energy Efficiency Design Index): Grams of CO₂ emitted per ton-mile of cargo transported
3) CII (Carbon Intensity Indicator): A measure of the operational carbon efficiency of ships



Permanent magnet shaft generator (4–5 MW class)

Environmental

Products and Technology Development

►Material Issue

Climate Action ►Material Issue

Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

Products and Technology Development

Development of New INTEGRICT HiPDS Preventive Diagnostics Platform

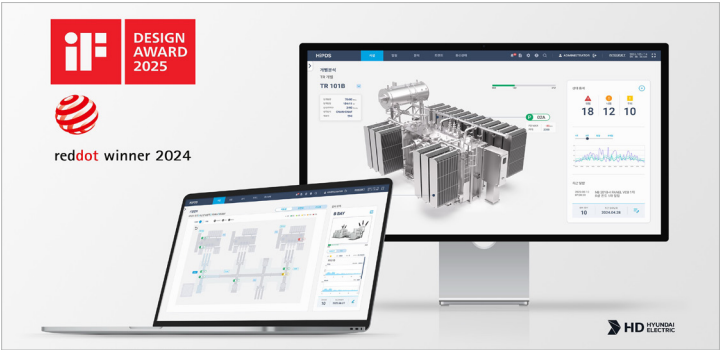
HD Hyundai Electric has completed the development of a new model of its HiPDS¹⁾ preventive diagnostics platform. HiPDS is a product that monitors and analyzes the condition of major power equipment used in substations, industrial facilities, and ships, supporting fault detection and effective preventive maintenance.

The new HiPDS was independently developed as a proprietary platform that overcomes the limitations of existing commercial SCADA²⁾-based systems. It reflects key requirements for industrial equipment management systems, resolving issues such as functional restrictions, limited scalability, and licensing costs. The upgraded system supports diagnostics and management for eight equipment types and thirteen diagnostic elements, while offering flexible communication integration that enables effective coordination across diverse equipment and data points.

In response to market demand for enhanced usability and interface design, HD Hyundai Electric collaborated with UI/UX designers throughout the development process. As a result, the new HiPDS model received two prestigious international design awards: the Red Dot Design Award 2024 and the iF Design Award 2025.

1) HiPDS: Hyundai Intelligence Preventive Diagnostics System
2) SCADA(Supervisory Control and Data Acquisition): A system for monitoring and controlling industrial processes

Red Dot Design Award 2024 – Winner (Product Design)



Environmentally Sustainable Revenue^{3), 4)}

Category	Unit	2022	2023	2024
Environmentally sustainable revenue ratio ⁵⁾	%	4.718	5.286	4.628
Environmentally sustainable revenue	KRW million	86,335	121,225	138,540

3) Defined as "environmentally sustainable products" according to the company's internal sustainability classification system. This includes products that reduce greenhouse gas emissions through high efficiency or use environmentally sustainable materials, such as alternative insulating oils and gases
4) Due to enhancements in the quantitative data calculation system, previously reported data were revised. In 2021, revenue from green products and services amounted to KRW 63.6 billion, accounting for 4.09% of total revenue based on the separate financial statements
5) Revenue is based on the separate financial statements

Green Patents

	Category	Unit	2022	2023	2024
Green patents	Number of green patent applications	cases	22	29	35
	Number of registered green patents	cases	54	67	69

Environmental

Products and Technology Development
▶ Material Issue

▶ Climate Action ▶ Material Issue

Environmental Management
Resource Circulation and Chemicals
Biodiversity
Social
Governance

Climate Action

Climate Action Governance

HD Hyundai Electric strengthens its climate action governance by systematically managing related issues through the ESG Committee under the Board of Directors. The ESG Committee deliberates and makes key decisions to ensure that climate-related issues are fully integrated into the company's mid- to long-term business strategy and climate action plans. To support climate governance, the company operates dedicated working-level departments—including the ESG Management Team and the S.H.E Management Department that oversee the implementation of climate action. At the group level, climate-related expertise and execution capabilities are further enhanced through an ESG advisory group composed of experts from various fields. The responsible departments report key climate-related matters to the CEO and the ESG Committee at least once a year. Final decisions are made by the CEO in consultation with the ESG Committee.

Through this governance framework, HD Hyundai Electric continues to enhance its capacity for effective climate action.

Board Oversight

HD Hyundai Electric systematically manages and oversees ESG-related matters, including climate change, through its highest decision-making body—the Board of Directors. The ESG Committee, a subcommittee of the Board, regularly reviews and approves the direction, implementation plans, and risk and opportunity factors associated with the company's ESG strategy. It also ensures that the climate action strategy is integrated and executed across the entire organization. To ensure objectivity and expertise, the ESG Committee is chaired by an independent outside director. The committee continuously strengthens its capabilities by receiving regular training on domestic and international ESG regulatory trends and peer company practices.

Executive Leadership and Roles

HD Hyundai Electric has established a collaborative structure among executives, working-level teams, and subject-matter experts to swiftly identify and respond to climate-related risks and opportunities. Led by the Chief ESG Officer and Chief Strategy Officer (CSO), dedicated teams such as the ESG Management Team and the S.H.E Management Department are at the forefront of driving the company's climate action efforts. At the group level, climate-related expertise is further reinforced through an ESG advisory group composed of specialists from diverse fields. These dedicated teams regularly assess climate-related risks and opportunities and report their findings to the Chief ESG Officer and the CEO, while submitting key agenda items to the ESG Committee. Matters discussed and approved by the ESG Committee are implemented by the relevant departments, and executive leadership oversees progress and performance toward the company's climate-related goals.

ESG Governance at HD Hyundai Group

HD Hyundai Electric actively participates in the ESG governance system led by HD Korea Shipbuilding & Offshore Engineering to embed ESG practices into business operations and strengthen group-wide synergies. The HD Hyundai Group ESG Council serves as a consultative body where the Chief ESG Officers of each affiliate convene to discuss the Group's key ESG agendas and strategic direction. The ESG Working Group conducts workshops for ESG practitioners across the Group and shares outstanding project cases, thereby contributing to the dissemination of best practices. In 2024, HD Hyundai Electric participated in a total of three Group ESG Council meetings and took part in the ESG Working Group twice—once in the first half and once in the second half of the year—contributing to enhanced group-wide collaboration and implementation of ESG initiatives.

2024 Key Climate-Related Agendas at ESG Council

ESG Governance	Date	Key Agenda Items
ESG Council	2024.02.27 (1st)	Discussion on group-wide ESG implementation strategy
	2024.08.28 (2nd)	Progress update on carbon neutrality roadmaps for each affiliate
	2024.12.20 (3rd)	Report on 2024 greenhouse gas emissions and causes for change
ESG Working Group	2024.02.26 (1st)	Discussion and sharing of group ESG implementation plan
	2024.12.06 (2nd)	Discussion and sharing of 2025 key ESG priorities at the group level

Compensation Based on Climate-Linked Performance

To strengthen the execution of climate action, HD Hyundai Electric has introduced a performance-based compensation system that ties climate-related KPIs to incentives for the CEO and key executives. Responsibility for climate action is specifically assigned to the CEO, and the company's climate strategy and targets are reflected in the CEO's KPI to ensure effective oversight. These KPIs include quantitative reduction targets for greenhouse gas emissions and energy consumption, which are directly linked to compensation such as annual incentives and salary. In 2024, climate-related KPIs account for 5% of the overall performance indicators, and this will be set at 3% in 2025.

Environmental

Products and Technology Development

► Material Issue

Climate Action ► Material Issue

Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

Climate Action

Climate Action Strategy

Carbon Neutrality by 2050

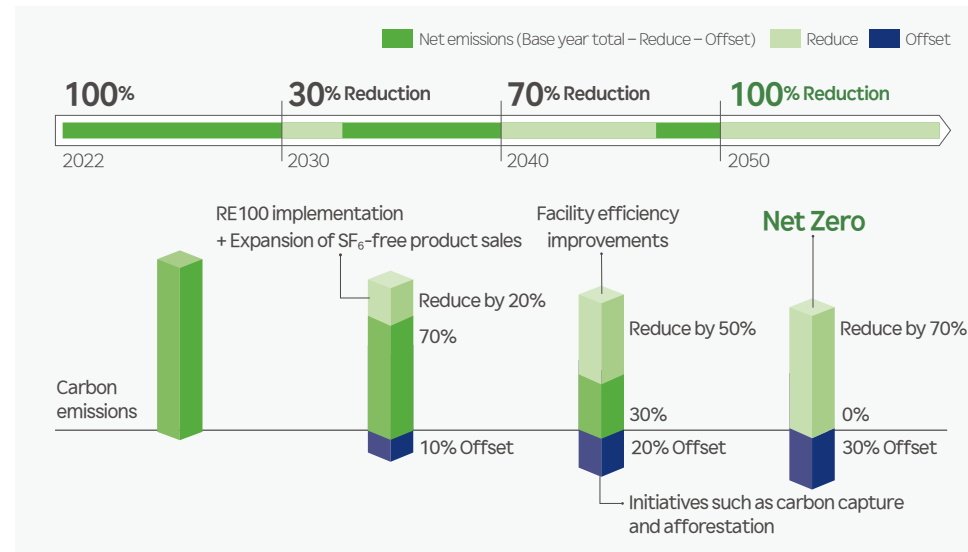
HD Hyundai Electric officially began its journey toward carbon neutrality in 2022 by formulating a long-term roadmap through 2050. The company first plans to reduce Scope 2 emissions (indirect emissions from electricity and energy use) by 2040 through the implementation of its RE100 roadmap, while also expanding the deployment of SF₆¹⁾-Free products and actively engaging in carbon offset²⁾ initiatives. Based on these efforts, HD Hyundai Electric has set a goal to reduce its greenhouse gas emissions by approximately 70% by 2040, compared to 2021 levels³⁾. Depending on the reduction progress, the company will further strengthen actions such as improving facility efficiency, transitioning to environmentally sustainable vehicles, and expanding offset programs to ultimately achieve 100% emissions reduction by 2050.

1) SF₆ (sulfur hexafluoride) is an inert gas known for its high stability, non-toxicity, colorlessness, odorlessness, and non-flammability. Its excellent insulation properties make it widely used in electrical equipment. However, it is also a potent greenhouse gas, with a global warming potential (GWP) approximately 23,900 times higher than CO₂.

2) Offsetting greenhouse gas emissions by purchasing emission rights equivalent to the amount of CO₂ emitted from corporate activities or through afforestation activities, etc.

3) The reduction target is based on the GHG Protocol (Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard), and includes HD Hyundai Electric's headquarters, subsidiaries, and overseas business sites.

2050 Carbon Neutrality Roadmap



Greenhouse Gas Reduction Target

HD Hyundai Electric's reduction strategy follows a two-phase approach based on GHG emissions assessment results.

- Phase 1 focuses on reducing emissions in Scope 2, where implementation infrastructure is relatively well-established.
- Phase 2 targets reductions in Scope 1 through the development of SF₆-free products and related technologies.

To reduce Scope 2 emissions—which are associated with electricity consumption—the company plans to adopt various methods, including on-site renewable energy generation, power purchase agreements (PPAs), and the purchase of Renewable Energy Certificates (RECs), particularly at overseas operations in regions such as the United States and China where renewable energy is economically viable. Scope 1 emissions reduction efforts will involve phasing out SF₆ usage through ongoing product and technology development. In parallel, HD Hyundai Electric will closely monitor changes in emissions regulations and carbon pricing policies in key countries to formulate long-term reduction measures.

Category	Unit	2024 Actual	2024 Target	2025 Target
Scope 1 & 2 ¹⁾	tCO ₂ eq	38,227	43,616	38,820

1) Coverage: Ulsan Plant, Seonam Plant, Mechanical and Electrical Research Institute, Anseong Plant, Bundang Office, GRC Bundang Office, and Gyeongdong Office

GHG Emission Reduction Activities

HD Hyundai Electric continues to implement company-wide energy-saving initiatives and invest in the replacement of outdated equipment across its production facilities to reduce energy consumption. In particular, the company manages power consumption—one of the largest contributors to total energy use and GHG emissions—by establishing voluntary reduction plans for each production unit, and by monitoring overall performance through company-wide KPIs.

At the workplace level, the company promotes everyday energy-saving practices through employee-led campaigns, including regulating office heating and cooling temperatures during summer and winter, turning off lights during lunch hours, and powering down office equipment after working hours.

In addition, the company is reviewing energy transition strategies such as expanding the adoption of renewable energy and replacing aging vehicles, with plans to increase related investments over time. As a result of these efforts, HD Hyundai Electric reduced electricity consumption by 889,604 kWh and GHG emissions by approximately 415 tCO₂eq in 2024. Externally, the company continues to reduce Scope 2 GHG emissions by purchasing Renewable Energy Certificates (RECs).

Environmental

Products and Technology Development
▶ Material Issue

Climate Action ▶ Material Issue

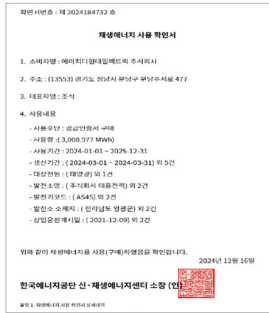
Environmental Management
Resource Circulation and Chemicals
Biodiversity
Social
Governance

Climate Action

Energy Management

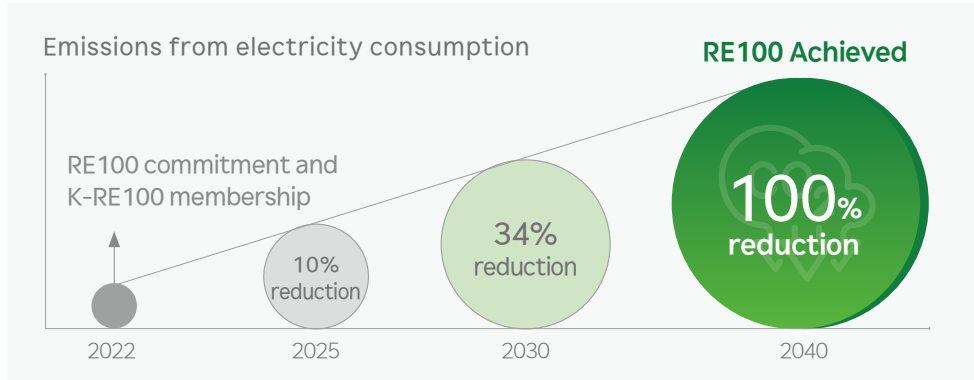
RE100

HD Hyundai Electric began its journey toward carbon neutrality in earnest by joining Korea's RE100 (K-RE100) program in December 2022. The company has set a goal to transition 100% of electricity used at all domestic and overseas sites to renewable energy by 2040. As an interim milestone, it aims to achieve RE10 by 2025 and is actively expanding its renewable energy procurement efforts. Through this RE100 implementation strategy, HD Hyundai Electric strives to strengthen its position as a provider of environmentally sustainable energy solutions, contribute to the realization of a carbon-neutral society, and fulfill its social responsibility for a sustainable future.



Certificate of Renewable Energy Usage

RE100 Roadmap



(Unit : %)

Site	Emission share	RE10	Overseas subsidiaries RE100	Global RE100
Domestic	68.6	REC/PPA 7.6	REC/PPA 2.6	Direct/PPA 66, REC 2.6
Alabama	23.8	REC/PPA 2.4	REC/PPA 23.8	Same as left
Yangzhong	7.6	-	Direct/PPA 7.6	Same as left

RE100 Progress and Future Targets

Year	2024	2025	2030	2040
Progress and targets	3% from REC (Consolidated)	RE10 Achieved	RE100 Achieved (Overseas Entities)	RE100 Achieved (All Global Sites)

Energy Use¹⁾

	Category	Unit	2021	2022	2023	2024
Total Energy Consumption	Total Energy Consumption (Total)	TJ	628	679	743	814
	Total Energy Consumption (Intensity) ²⁾	TJ / KRW billion	0.40	0.37	0.32	0.27
	Non-renewable Energy Consumption ³⁾	TJ	628	679	738	785
Direct Energy Consumption	Direct Energy Consumption	TJ	119	133	133	131
Indirect Energy Consumption	Indirect Energy Consumption (Total)	TJ	509	548	606	656
	Electricity Consumption	TJ	509	548	605	655
	Steam/Heat Consumption	TJ	0	0	1	1
Renewable Energy Consumption	Renewable Energy Consumption (Total)	TJ	0	0	5	29
	Renewable Energy Share	%	0	0	0.67	3.56
Grid Electricity Share	Grid Electricity Share	%	81.05	80.35	81.97	80.25

1) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system
Scope of calculation: Ulsan Plant, Seonam Plant, Mechanical and Electrical Research Institute, Anseong Plant, Bundang Office, GRC Bundang Office, Gye-dong Office
Energy consumption target for 2024: Energy intensity 0.327 TJ / KRW billion (2024 actual intensity: 0.273 TJ / KRW billion, achieving 119.78% of the target)
Prepared in accordance with the GHG inventory standard. Total may not match sum of each site due to rounding
2) Revenue based on separate financial statements
3) 2024 non-renewable energy consumption target: 979TJ

Renewable Energy Sales

Category	Unit	2022	2023	2024
Renewable Energy Sales Volume	MWh	538.9	512.9	312.1

Environmental

Products and Technology Development

▶ Material Issue

▶ **Climate Action** ▶ Material Issue

Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

Climate Action

Climate-Related Risks and Opportunities

HD Hyundai Electric identifies climate-related risks and opportunities across the short-, medium-, and long-term time horizons and establishes appropriate response strategies for key issues. Based on the physical and transition risks recommended by the TCFD, the company has developed a pool of potential risks and opportunities by taking into account industry characteristics and reviewing domestic and international literature.

Identification and Management Process for Climate-Related Risks and Opportunities



Identification of Climate-Related Risks and Opportunities

HD Hyundai Electric identifies climate-related risks and opportunities across the short-, medium-, and long-term time horizons and establishes appropriate response strategies for key issues. Based on the physical and transition risks recommended by the TCFD, the company has developed a pool of potential risks and opportunities by taking into account industry characteristics and reviewing domestic and international literature. Transition risk refers to risks arising from the shift to a low-carbon economy, while physical risk refers to the physical impacts of climate change. These may lead to financial implications for the organization, such as asset damage or supply chain disruptions.

Risk and Opportunity Pool

Transition Risks			Physical Risks		Opportunities			
Policy & Legal	Technology	Market & Reputation	Acute	Chronic	Policy and Legal	Technology	Market and Reputation	Resources and Resilience
Implementation/strengthening of policies such as tightened GHG emission regulations	Transition to low-carbon products or services	Market uncertainty, such as rising raw material prices related to climate issues	Floods	Rising average temperatures	Implementation and strengthening of climate change policies	Development of low-carbon technologies/products/services	Shifts in customer and consumer preferences and demand related to climate change	Utilization of low-carbon energy sources and high-efficiency resources
			Typhoons	Changing precipitation patterns				
Strengthened disclosure obligations related to climate change	Conversion of production processes/equipment to low-carbon technologies	Changes in customer/consumer preferences and demand related to climate change	Heatwaves	Sea level rise	Participation in the greenhouse gas emissions trading market	Use of existing environmentally sustainable technologies/products/services	Enhancing response to climate change issues	Diversification of raw materials and use of alternatives for climate adaptation
			Wildfires					
			Droughts					
Increase in utility costs due to climate regulations	Power generation using low-carbon energy sources	Reputational risks					Enhancement of Corporate Value, Credibility, and Brand Image	
Lawsuits related to climate change issues			Torrential rains					

Environmental

Products and Technology Development
► Material Issue

Climate Action ► Material Issue

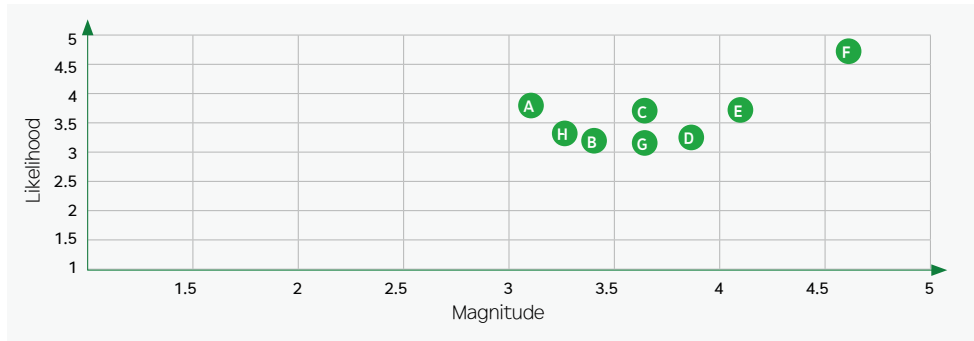
Environmental Management
Resource Circulation and Chemicals
Biodiversity
Social
Governance

Climate Action

Materiality Assessment

HD Hyundai Electric identified key ESG issues by comprehensively evaluating the magnitude, likelihood, and expected time of impact of each issue based on a pool of risks and opportunities identified. The identified risks and opportunities are scored with reference to materiality assessment cases of peer companies at home and abroad, as well as evaluation criteria provided by third-party expert organizations. These scores form the basis of our materiality assessment.

Materiality Assessment Results



Category		Issue
Transition risk	A	Reinforcement of GHG emission regulations and implementation of climate change policies
	B	Transition to low-carbon products or services
	C	Transition of production processes or facilities to low-carbon technologies
	D	Reputation
Physical risk	E	Typhoons
Opportunity	F	Development of low-carbon technologies, products, and services
	G	Response to climate change issues
	H	Efficient use of resources such as resource recycling, water conservation, and low-carbon energy sources

Scenario Selection and Analysis

HD Hyundai Electric conducted scenario analysis to assess the potential financial impacts of climate-related risks and opportunities, including the strengthening of climate policies and physical events such as typhoons. For transition risks and opportunities, the company applied the IEA 450 Scenario, which limits the average global temperature rise to 2°C. For physical risks, the RCP 8.5 Scenario—assuming continued high greenhouse gas emissions under current trends—was used. Regarding carbon pricing, projections were derived based on trends from Korea’s Emissions Trading Scheme (K-ETS) and a review of relevant domestic and international literature.

Scenario Selection and Analysis Results

Category	Transition Risks and Opportunities	Physical Risks
Scenario selected	• Conservative approach using IEA 450 Scenario	• Conservative approach using RCP 8.5 Scenario
Scenario concept	• IEA 450: Scenario with a 50% probability of limiting global warming to 2°C by 2100	• RCP 8.5: Scenario assuming no mitigation, leading to a 4.8°C rise in global average temperature by the end of the 21st century
Key assumptions	• Promotion of low-carbon technology development and adoption • Increase in countries implementing emissions trading schemes and suppression of temperature rise through high carbon prices	• Continued greenhouse gas (GHG) emissions without mitigation
Key scenario results	• Estimated cumulative increase in energy-related investment of USD 10.5 trillion from 2010 to 2030 (especially in transportation)	• CO ₂ concentration reaching 936 ppm by 2100 • Global temperature rise of 4.3°C (2081–2100 vs. pre-industrial levels) • Average sea level rise of 0.63 m (2081–2100 vs. 1986–2005)

Environmental

Products and Technology Development
▶ Material Issue

▶ Climate Action ▶ Material Issue

Environmental Management
Resource Circulation and Chemicals
Biodiversity
Social
Governance

Climate Action

Analysis of Key Climate-Related Risks and Opportunities

HD Hyundai Electric conducted a double materiality assessment to systematically analyze issues related to climate action. As a result, key climate issues were identified as core ESG priorities. This assessment was carried out by comprehensively considering both external stakeholder interest and business impact.

Category	Issue	Short-term	Mid-term	Long-term	Magnitude	Likelihood	Impact on Business and Value Chain
Transition risk	Reinforcement of GHG emission regulations and implementation of climate change policies	●	●	●	●●○○	●●●○	Due to the gradual strengthening of the emissions trading system, the free allocation ratio is expected to decrease, and carbon credit prices are expected to rise. Without a carbon reduction strategy, the company will need to continuously purchase carbon credits, leading to increased cost burdens.
	Transition of production processes or facilities to low-carbon technologies		●	●	●●●○	●●●○	
	Transition to low-carbon products or services	●	●	●	●●○○	●●○○	The shift toward low-carbon products and services may reduce demand for high-carbon products. Without sufficient R&D to support the transition, the company may fail to meet key customer requirements in the mid-to long term, leading to weakened competitiveness due to potential export restrictions and unmet customer expectations.
	Reputation		●	●	●●●○	●●○○	As ESG disclosure requirements are being strengthened globally, non-compliance may result in legal sanctions such as fines or penalties. False disclosures or greenwashing can undermine the trust of customers and investors, leading to reputational risks such as revenue loss and lawsuits. Ensuring transparency is increasingly recognized as an essential factor in maintaining corporate trust.
Physical risk	Typhoons	●	●	●	●●●○	●●●○	Typhoons, accompanied by strong winds and heavy rainfall, account for approximately 58% of natural disaster damage in Korea. Damage to assets, flooding, or collapse caused by typhoons can lead to increased recovery costs and financial losses from operational disruptions.
Opportunity	Development of low-carbon technologies, products, and services	●	●	●	●●●●	●●●●	With the expansion of policies such as Renewable Energy 3020, the construction of renewable energy power plants is increasing, which is expected to drive growth in power conversion and energy storage systems (ESS). As renewable energy demand rises, early response to the rapidly growing ESS markets in Korea and abroad (e.g., United States, Europe) is critical. Additionally, as demand for smart grid systems incorporating IT for efficient energy management in industrial complexes grows, expanding industrial smart grid businesses based on energy management platforms will be necessary.
	Response to climate change issues		●	●	●●●○	●●○○	The Ministry of Environment recently announced a revision of the Enforcement Decree of the "Act on Allocation and Trading of Greenhouse Gas Emission Permits." If carbon reduction strategies such as renewable energy transition and energy efficiency improvements are implemented, the company can avoid exceeding its free allocation and may generate additional revenue by selling surplus emission allowances on the market.
	Efficient use of resources such as resource recycling, water conservation, and low-carbon energy sources		●	●	●●○○	●●○○	

Environmental

Products and Technology Development
▶ Material Issue

▶ Climate Action ▶ Material Issue

Environmental Management
Resource Circulation and Chemicals
Biodiversity
Social
Governance

Climate Action

Financial Impact Analysis and Assessment – Transition Risks and Opportunities

HD Hyundai Electric applied scenario-based analysis to qualitatively assess the financial impacts of key risks and opportunities identified through the materiality assessment. A qualitative assessment was conducted for all identified items, and where relevant—such as in cases involving emission allowance purchase costs or potential gains—a quantitative analysis was carried out using projected carbon pricing data. In addition, the company conducted a quantitative assessment of carbon reduction effects associated with efficient resource use through low-carbon energy sources and the achievement of RE100 goals. Quantitative evaluations of other major risks and opportunities will be conducted in future assessments.

Financial Impact Analysis from Transition Risks

Category	Issue	Scenario Assumptions or Outcomes	Qualitative Financial Impact Assessment
Transition Risk	Reinforcement of GHG emission regulations and implementation of climate change policies	• Increased importance of emissions trading schemes (carbon price estimated at \$180 per ton by 2030)	• Higher emission allowance costs and increased investment required for emissions reduction • Overall cost increase may reduce product price competitiveness and lead to revenue decline
	Transition to low-carbon products or services	• Increased investment in energy-efficient equipment, home appliances, and buildings	• Decreased demand for high-carbon products and services leading to reduced revenue • Increased costs for technology development and facility upgrades to support low-carbon transition • Reduced demand and sales if major customers pursue carbon neutrality targets
	Transition of production processes or facilities to low-carbon technologies	• Promotion of low-carbon technology development and deployment	• Increased costs for adopting low-carbon technologies or CCS (carbon capture and storage) • Without such technologies, business expansion may incur carbon costs, reducing price competitiveness and revenue
	Reputation		

Financial Impact Assessment from Transition Risks

The financial impact of strengthened greenhouse gas emission regulations has been assessed.

Unit: KRW 100 million

Category	Region	2030	2040	2050
Reinforcement of GHG emission regulations and implementation of climate change policies	Korea	8.5	13.8	18.6
	China	1.2	4.0	6.7
	United States	20.3	28.9	34.0

Financial Impact Analysis of Opportunities

Category	Issue	Scenario Assumptions or Outcomes	Qualitative Financial Impact Assessment
Opportunity	Development of low-carbon technologies, products, and services	• Promotion and dissemination of low-carbon technologies	• Increased demand for low-carbon products and services driven by major customers' carbon neutrality declarations; sales growth of the company's low-carbon products
	Response to climate change issues	• Increased investment in energy-efficient equipment, home appliances, and buildings • Increased investment in low-/zero-carbon power generation	• Capital and investment can be secured through various subsidies and incentives aimed at corporate decarbonization • Carbon cost reduction through transition to low-carbon technologies and products to meet consumer demand
	Efficient use of resources such as resource recycling, water conservation, and low-carbon energy sources	• Increased investment in low-/zero-carbon power generation • Growing share of global renewable energy • Greater adoption of CCS technologies in the power generation and industrial sectors	• Cost savings achieved by sourcing renewable electricity as part of RE100 implementation

Financial Impact Assessment of Opportunities

The financial impact of carbon cost savings from achieving RE100 has been assessed

Unit: KRW 100 million

Category	Region	2030	2040
Efficient use of resources such as resource recycling, water conservation, and low-carbon energy sources	Korea	0.74	87.26
	China	4.15	6.18
	United States	28.67	33.58

Environmental

Products and Technology Development
▶ Material Issue

▶ Climate Action ▶ Material Issue

Environmental Management
Resource Circulation and Chemicals
Biodiversity
Social
Governance

Climate Action

Financial Impact Analysis and Assessment – Physical Risks

Financial Impact Analysis of Physical Risks

Category	Issue	Scenario Assumptions or Outcomes	Qualitative Financial Impact Assessment
Physical Risk	• Typhoon	• Rising global temperatures and sea surface temperatures • More extreme rainfall patterns and increased typhoon frequency	• Direct and indirect damage to facilities and site grounds due to heavy rainfall and flooding associated with typhoons, potentially resulting in revenue loss • Increased costs associated with installing preventive equipment against typhoon damage • Potential disruptions to business continuity

Physical Risk Mitigation Activities

HD Hyundai Electric is making ongoing efforts to minimize business damage caused by climate change and to protect the health and safety of its employees. In particular, in response to heatwaves, the company has addressed increased risks of heat- and cold-related illnesses due to recent temperature fluctuations by preparing and distributing health-related supplies to high-risk employees. A total of KRW 610 million was spent on employee welfare expenses for responding to heatwaves and cold spells. Major items include the installation of heating mats in changing rooms for night-shift workers, provision of seasonal snacks during extreme weather, operation of summer resort facilities, and installation of heating/cooling systems in factory restrooms.

Development and Implementation of Climate Action Initiatives

HD Hyundai Electric has identified risks and opportunities related to climate change and has developed a climate action strategy based on scenario analysis results. The company has selected key response initiatives such as GHG emissions accounting and reduction, development of low-carbon products and services, and management of climate-related risks and opportunities. Each initiative is being systematically implemented through designated lead departments. Additionally, the identified risks and opportunities are categorized into short-, medium-, and long-term timelines, with phased implementation plans that are being developed and executed.

Climate Change Response Initiatives by Issue

Response Initiatives	Key Risks & Opportunities	Short-Term (~2026)	Mid-Term (2027~2033)	Long-Term (2034~)	Coordinating Department
GHG Emissions Accounting	• Climate policy	Identify improvement needs and expand emissions accounting scope	Company-wide emissions data management aligned with IFRS disclosure standards (including overseas business units and product categories), and digitization	Understand new regulations and accounting logic related to additional emissions sources and new products	• S.H.E Management Department (ESG Management Team, Project & Production Planning Department)
GHG Emissions Reduction	• Climate policy • Transition of production/ processes to low-carbon technologies • Efficient resource use	Establish foundation for carbon neutrality and RE100 roadmap implementation	Operate electric vehicles and decarbonize production processes	Continuously implement carbon neutrality and RE100 roadmap; revise implementation strategies based on global trends and offsetting guidelines	• ESG Management Team (S.H.E Management Department)
R&D of Low-carbon Products & Services	• Transition to low-carbon products/ services • Reputational risks & opportunities • Development of low-carbon technologies, products, and services	Calculate LCA data and identify areas needing decarbonization	Expand R&D budget for low-carbon products and services	Secure competitive low-carbon products by analyzing industry trends and company strengths	• Technology Management Department • Project & Production Planning Department (ESG Management Team)
Climate Risk & Opportunity Management	• Reputational risks & opportunities • Typhoons • Climate change response • Efficient resource use	Strengthen internal reporting system for climate change implementation status	Advance assessment methods for financial impacts of climate-related risks and opportunities (including internal carbon pricing)	Quantify outcomes of climate response tasks and enhance supply chain management measures	• ESG Management Team (Purchasing Department)

Environmental

Products and Technology Development
▶ Material Issue

▶ Climate Action ▶ Material Issue

Environmental Management
Resource Circulation and Chemicals
Biodiversity
Social
Governance

Climate Action

Monitoring and Integrated Management of Climate-Related Risks and Opportunities

HD Hyundai Electric has identified climate-related risks as part of its climate resilience scenario analysis and has conducted a materiality assessment accordingly. Based on this assessment, the company executes relevant strategies and continuously monitors progress to identify areas for improvement.

Climate Risk and Opportunity Management Procedure

Policy and Scenario Analysis	Assess the company's strategy and resilience using scenarios such as IEA 450 and RCP 8.5.
Identification of Risks and Opportunities	Regular review of climate action issues by the ESG Management Team and related departments; reporting to the Chief ESG Officer and CEO
Assessment of Risks and Opportunities	Conduct materiality assessments to identify critical climate issues
Risk Management Approach	- Transition Risks: Monitor domestic and international regulatory trends, assess industry benchmarks, and update internal roadmaps - Physical Risks: Review scenario analysis outcomes and establish contingency plans
Company-Wide Integrated Risk Management	The ESG Committee leads the integrated management of climate-related risks and opportunities

Climate Action Decision-Making Structure

ESG Committee	- The company's highest decision-making body on ESG matters - Oversees and manages ESG issues, including those related to climate change - Reviews ESG material issues - Annually deliberates and approves ESG strategic direction, implementation plans, and the risks and opportunities of ESG material issues, ensuring that the climate action strategy is thoroughly integrated across all business areas - Chaired by an independent outside director; provides training on ESG regulations, peer company cases, and response strategies (domestic and international)
CEO	- Submits agendas to the ESG Committee - Reviews and approves key climate-related issues
Chief ESG Officer	- Leads the implementation of climate transition plans - Sets climate-related corporate targets - Reports on climate-related issues
ESG Management Team & Relevant Departments	Regularly review climate-related risks and opportunities and report findings to the Chief ESG Officer and CEO

Greenhouse Gas Emissions Management

HD Hyundai Electric prepares an annual greenhouse gas emissions statement in accordance with the Framework Act on Carbon Neutrality. The contents of the statement are reviewed by a third-party verification agency to assess its accuracy and conformity.

Greenhouse Gas Emissions¹⁾

Category		Unit	2021	2022	2023	2024
Total GHG emissions (Scope 1+2)	Scope 1 + Location-based Scope 2 emissions (total)	tCO ₂ eq	30,550	33,163	36,164	39,619
	Scope 1 + Location-based Scope 2 emissions (intensity) ²⁾	tCO ₂ eq / KRW billion	19.66	18.12	15.77	13.23
	Scope 1 + Market-based Scope 2 emissions (total)	tCO ₂ eq	30,550	33,163	35,941	38,225
	Scope 1 + Market-based Scope 2 emissions (intensity) ²⁾	tCO ₂ eq / KRW billion	19.66	18.12	15.67	12.77
Direct emissions (Scope 1)	Scope 1 emissions	tCO ₂ eq	6,205	6,915	6,907	6,818
Indirect emissions (Scope 2)	Location-based Scope 2 emissions	tCO ₂ eq	24,345	26,252	29,257	32,801
	Market-based Scope 2 emissions	tCO ₂ eq	24,345	26,252	29,036	31,409
	Scope 3 emissions (total)	tCO ₂ eq	-	-	275,755,064	276,495,208
	Upstream emissions (subtotal)	tCO ₂ eq	-	-	363,207	436,792
	Category 1. Purchased goods and services	tCO ₂ eq	-	-	306,212	327,956
	Category 2. Capital goods	tCO ₂ eq	-	-	9,721	13,068
	Category 3. Fuel- and energy-related activities	tCO ₂ eq	-	-	2,915	5,712
	Category 4. Upstream transportation and distribution	tCO ₂ eq	-	-	37,526	83,146
	Category 5. Waste generated in operations	tCO ₂ eq	-	-	2,034	2,125
	Category 6. Business travel	tCO ₂ eq	-	-	1,963	2,235
	Category 7. Employee commuting	tCO ₂ eq	-	-	2,632	2,346
	Category 8. Upstream leased assets	tCO ₂ eq	-	-	204	204
	Downstream emissions (subtotal)	tCO ₂ eq	-	-	275,391,857	276,058,416
	Category 9. Downstream transportation and distribution	tCO ₂ eq	-	-	3,629	11,865
	Category 10. Processing of sold products	tCO ₂ eq	-	-	-	-
	Category 11. Use of sold products	tCO ₂ eq	-	-	275,260,088	275,912,433
Other indirect emissions (Scope 3)	Category 12. End-of-life treatment of sold products	tCO ₂ eq	-	-	128,140	134,118
	Category 13. Downstream leased assets	tCO ₂ eq	-	-	-	-
	Category 14. Franchises	tCO ₂ eq	-	-	-	-
	Category 15. Investments	tCO ₂ eq	-	-	-	-

1) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system
Scope of calculation: Ulsan Plant, Seonam Plant, Mechanical and Electrical Research Institute, Anseong Plant, Bundang Office, GRC Bundang Office, Gye-dong Office
Prepared in accordance with the GHG inventory standard. Total may not match sum of each site due to rounding
2) Revenue based on separate financial statements

Environmental

Products and Technology Development

▶Material Issue

Climate Action ▶Material Issue

» Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

Environmental Management

Environmental Management Governance

HD Hyundai Electric delegates environmental management decision-making authority to the CEO and the Chief Safety Officer (CSO). They are responsible for establishing environmental policies and plans, identifying and assessing environmental risks, and reviewing environmental impacts during new investments. The S.H.E Management Department, under the direct supervision of the CSO, is the dedicated organization for implementing environmental management. It is responsible for developing and implementing related strategies and regularly monitors key environmental performance indicators. Additionally, major environmental issues are reviewed twice a year by the ESG Committee. The CEO and key executives incorporate environmental performance into their key performance indicators (KPIs), which are linked to the company’s compensation system—enhancing the effectiveness of environmental management.

Environmental Management Organization Chart



Roles and Responsibilities of the Environmental Management Organization

HD Hyundai Electric operates a dedicated environmental, health and safety (EHS) organization to ensure systematic management of environmental and occupational health and safety (OHS) issues, while reinforcing ESG initiatives. A multi-layered management system has been established that reflects the characteristics and regulatory requirements of each site. The corporate-level EHS organization is responsible for a wide range of activities, including external liaison and planning for environmental and health matters, ESG management support, preparation of the sustainability report, and coordination of safety management meetings. The team also drafts and revises EHS-related standards and guidelines,

monitors relevant regulations, and ensures compliance. In addition, it reviews environmental impacts during capital investments, designates and manages legally required officers, conducts chemical substance registration and emissions reporting, discloses environmental information, and responds to environmental emergencies. Through these activities, the company proactively manages potential environmental risks.

1) CSO(Chief Safety Officer): The highest-ranking executive responsible for safety.

Environmental Management Policy

HD Hyundai Electric considers environmental management as one of the company’s core business strategies in order to proactively respond to global environmental challenges such as climate change, resource depletion, and pollution. Key environmental matters are reviewed and decided through the ESG Committee under the Board of Directors, enabling company-wide management of environmental risks and strengthening the foundation for sustainable business. The company strictly complies with domestic and international environmental and occupational safety regulations, and operates a comprehensive environmental management system that incorporates all legal requirements across its sites. To minimize environmental impact and promote sustainable growth, HD Hyundai Electric is committed to continuous improvement in its environmental performance. Each site is subject to regular audits, and any identified issues are addressed promptly through corrective and follow-up measures to preemptively manage environmental risks. Additionally, the company views enhancing environmental awareness among internal and external stakeholders as a strategic priority. It actively communicates its environmental goals and achievements to employees, partner companies, and local communities to encourage voluntary participation. Furthermore, regular training is provided to help employees recognize the environmental impact of their work and embed environmentally sustainable practices into daily operations. Campaigns and internal initiatives are also conducted to promote awareness and action throughout the organization.

Safety, Health, and Environmental (SHE) Management Policy

Executive Compensation Linked to Environmental Performance

Position	KPI
CEO	Company-wide reduction of greenhouse gas (GHG) emissions

Environmental

Products and Technology Development

▶ Material Issue

Climate Action ▶ Material Issue

▶ Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

Environmental Management

Environmental Management Policy and Objectives

Based on its Safety, Health, and Environmental (SHE) Management Policy, HD Hyundai Electric is committed to creating sustainable value through the development of sustainable products and services, carbon emissions management, and the establishment of energy efficiency strategies. To this end, the company has clearly defined what constitutes environmentally sustainable products and projects, designating them as key indicators and systematically tracking related performance. Environmental management data is integrated into the company-wide management system and reflected in KPIs to establish concrete goals and monitor progress. In addition, regular internal audits are conducted to verify compliance with environmental regulations, and educational programs are continuously provided to raise environmental awareness among internal and external stakeholders.

 Supply Chain Management and Distribution	Environmental management capabilities of external parties (including suppliers, contractors, and service providers) are evaluated when selecting business partners. It supports the establishment of environmental management systems for high-risk or key suppliers by conducting sustainability assessments. All partner companies are required to adhere to the Supplier Code of Conduct to ensure ESG responsibilities are met. The company also implements a Green Purchasing Guideline to procure environmentally sustainable components and produce environmentally responsible products, thereby enhancing customer satisfaction and fulfilling social responsibility.
 Production Sites	Production sites implement environmental management systems based on the internationally recognized ISO 14001 standard. These systems cover target setting, training, document and record management, internal audits, and more. Management standards and internal regulations are established for each category—air, water, waste, chemicals, soil, and greenhouse gases—and environmental impacts are monitored through continuous improvement efforts and performance evaluations.
 Products and Services	Life Cycle Assessment (LCA) is conducted to identify environmental impacts across the entire product life cycle—from raw material input, production, and distribution to product recovery and recycling. The company is also dedicated to developing technologies, products, and services that support the transition to a low-carbon and renewable energy society.
 Waste Management	All procedures from waste generation to final disposal are conducted in accordance with the company's Waste Management Standards. These standards cover scope, definitions, roles and responsibilities, waste generation, collection, storage, disposal, inspection, subcontracting, and monitoring. By collaborating with waste treatment providers and across industries, the company maximizes reuse and recycling rates. Recyclable waste generated at sites is converted into reusable resources, spreading economic value through resource circularity.

Environmental Management System (ISO 14001) and Processes

HD Hyundai Electric has established a system to identify environmental risks early and continuously improve environmental performance in order to effectively achieve its environmental management policy and goals. Based on this, the company has obtained and maintained ISO 14001 environmental management system certification, an international standard. In 2023, the certification was renewed through a reassessment by Lloyd's Register. In 2024, a follow-up audit was conducted to review the operation status of the environmental management system, and internal management systems have been reinforced to focus on performance management and the identification of improvement tasks. The sites evaluated include Ulsan, Seonam, and Anseong plants, and the certification is valid through 2026. In addition, to enhance site-level environmental management, the company implements structured environmental practices through the preparation and management of MBS (Management by Site).



Environmental Training

HD Hyundai Electric regularly conducts in-person environmental training for environmental managers, new employees, and facility operators to proactively respond to strengthened environmental regulations and enhance company-wide environmental management capabilities. The latest information collected through external training and activities with the Korea Environmental Engineers Association is shared company-wide. Repetitive, hands-on training focused on environmental facilities and chemical substance handling, facility-specific inspection items, and operation log practices is conducted to improve field personnel's understanding. Additionally, the company provides legal education for environmental engineers and ISO internal auditor training to working-level groups. These efforts aim to raise awareness of core ESG values such as carbon neutrality and renewable energy transition and to empower employees to actively participate in managing environmental risks and opportunities.

Category	Unit	2022	2023	2024
Number of training participants ²⁾	persons	945	914	887

¹⁾ In-person environmental training provided to employees, including operation and management of environmental facilities, handling of chemical substances, and ISO internal auditor training

²⁾ Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

Environmental

Products and Technology Development

► Material Issue

Climate Action ► Material Issue

► Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

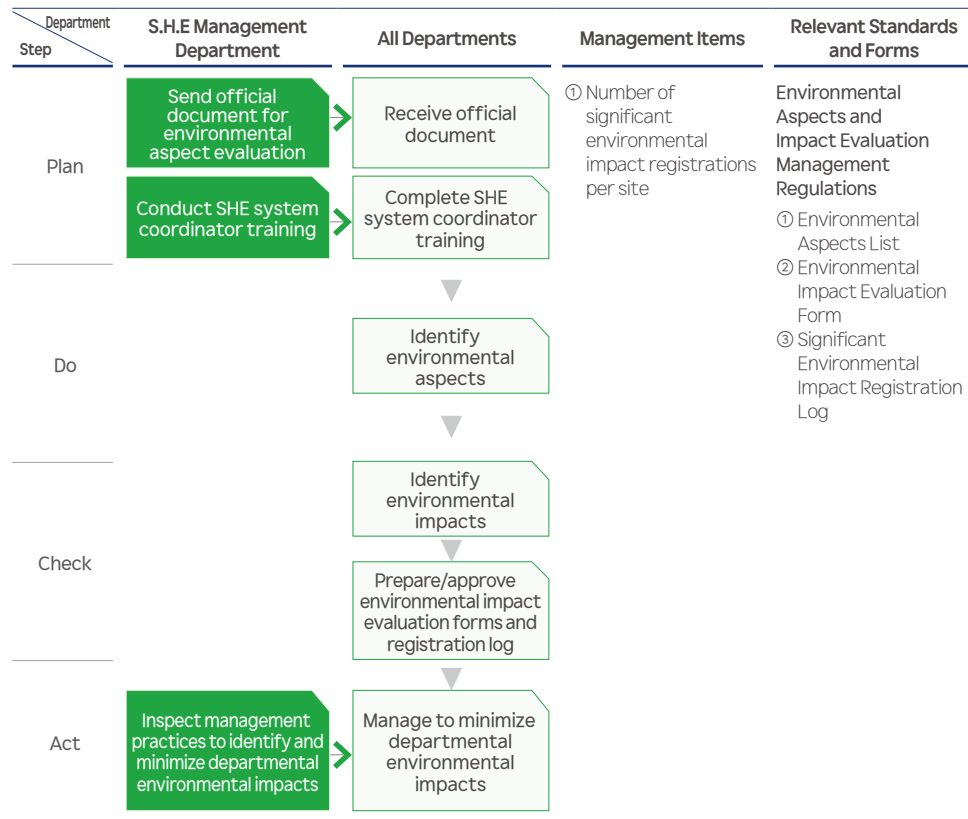
Governance

Environmental Management

Environmental Impact Assessment

HD Hyundai Electric thoroughly manages and supervises environmental risks that may occur throughout the entire lifecycle of products and technologies – from development to usage and disposal – to conserve natural capital. Furthermore, the company has established internal management standards to ensure systematic compliance with environmental regulations and provides environmental training to responsible personnel to strengthen departmental expertise and raise company-wide environmental awareness.

Environmental Impact Assessment Workflow



Audit of Environmental Impact Assessment

Category	Unit	2024 Performance	2025 Target	2026 Target	2027 Target
Environmental Impact Assessments Implemented	Y/N	Y	Y	Y	Y
Environmental Patrol Inspections	cases	20	20	20	20

Environmental Impact Reduction

Category		Unit	2022	2023	2024
Environmentally friendly Vehicles	Environmentally friendly vehicle ownership ratio	%	0	22.34	21.65
	Number of environmentally friendly vehicles	units	0	21	21
	Total number of vehicles	units	84	94	97

Environmental and Energy Certifications

	Category	Unit	2022	2023	2024
Environmental Management System(EMS) Certifications	EMS Certification/audit ratio ¹⁾	%	100	100	100
	Number of operations subject to be verified or audited EMS	sites	4	4	4
	EMS international certification acquisition rate	%	100	100	100
	Number of sites acquiring EMS international certification	sites	4	4	4
	Third-party EMS audit implementation rate	%	0	0	0
	Number of sites undergoing third-party EMS audits	sites	0	0	0
	EMS internal audit implementation rate	%	0	0	0
	Number of sites undergoing EMS internal audits	sites	0	0	0
	Number of third-party environmentally sustainable certifications ²⁾	sites	2	3	3

1) ISO 14001 certification: Applied to Ulsan Plant 1 & 2, Seonam Plant, and Anseong Plant

2) 2022: Obtained Green Technology Product certification for an environmentally sustainable switchgear using high-pressure dry-air insulation technology

2023: Obtained Green Technology Product certification for an SF₆-Free environmentally sustainable gas-insulated switchgear using fluorinated mixed gas

Environmental

Products and Technology Development

▶Material Issue

Climate Action ▶Material Issue

» Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

Environmental Management

Environmental Compliance and Incident Response Process

HD Hyundai Electric has established and distributed standard procedures for each environmental media law (such as the Air Quality Conservation Act, Water Environment Conservation Act, and Waste Management Act) to enable a company-wide response. Based on these, a consistent environmental management system is in place. Semi-annual reviews and feasibility assessments of laws are conducted to reflect revisions, and internal management standards¹⁾ are continuously updated accordingly. Based on the updated standards, the company has implemented specific strategies such as strengthening internal emission limits beyond legal requirements, managing waste by category, and standardizing installation criteria for wastewater discharge facilities. These measures simultaneously aim to ensure legal compliance and internal environmental management standards. In 2024, 33 IoT monitoring devices were installed on all air pollutant emission facilities at the Seonam plant. In addition, an emergency response manual was prepared to address abnormal operations. Special inspections were conducted to assess the aging status of environmental equipment at all sites, and corrective actions were taken for issues identified on-site.

Environmental Incident Response Process

HD Hyundai Electric operates a systematic response framework to prepare for potential environmental emergencies resulting from business activities. The Head of the S.H.E Management Department is responsible for selecting departments subject to environmental training, notifying them, and overseeing the planning and execution status of emergency drills across all departments. Each department head must identify all potential emergency situations related to the department’s activities and continuously maintain and manage a prevention and response system. In the event of an incident, the first witness must immediately report it to the S.H.E Management Department and their own department to enable a rapid initial response.

Compliance with Environmental Laws

Category		Unit	2021	2022	2023	2024
Violations of environmental laws	Major violations of environmental laws	cases	1	1	0	0
	Monetary penalties for major violations	KRW million	0.4	0.8	0	0
	Major violations (over \$10,000)	cases	0	0	0	0
	Monetary penalties for major violations (over \$10,000)	KRW million	0	0	0	0
	Provisions for penalties for major violations (over \$10,000)	KRW million	0	0	0	0
Environmental incidents	Hazardous substance leaks	kg	0	0	0	0

1) Including the establishment of category-specific waste management standards and the standardization of installation criteria for wastewater discharge facilities

Investment Review Procedure Considering Environmental Risks

HD Hyundai Electric incorporates rigorous safety and environmental risk assessments into its facility investment decisions to ensure responsible investments. For investment plans exceeding KRW 500 million, the Facility Investment Review Committee conducts a comprehensive review of the investment proposal, feasibility, and economic viability before deciding whether to proceed. In particular, the Facility Investment Check Point List²⁾ used during the review process, includes not only financial criteria such as the appropriateness of investment effects, but also compliance with safety and environmental standards. This ensures that financial performance and ESG factors are balanced in a comprehensive investment decision-making system.

Environmental Investments

Category	Unit	2021	2022	2023	2024
Total Environmental Investment	KRW 100M	59	74	217	349
Environmental Capital Expenditure	KRW 100M	18	31	125	226
Environmental Operating Expenditure	KRW 100M	41	43	92	123

Investment Cases Considering Environmental Risks

Category	Key Actions
Cheongju Plant (relocation)	Enhanced pollution reduction by increasing capacity and improving performance of air pollution control facilities, thereby proactively addressing regulatory risks related to air quality.
Ulsan Plant 1	Replaced aging insulating oil filtering and dust collection equipment to reduce harmful emissions and improve air quality management above regulatory standards.
All plants	Replaced old HVAC systems to improve energy efficiency and reduce carbon emissions, contributing to company-wide GHG reduction.
Seonam Plant	Introduced IoT measuring devices for air emission facilities to enable real-time monitoring and rapid response to abnormal pollutant levels.
	Replaced aging Porter vehicles with LPG-powered vehicles, reducing both carbon emissions and fine dust during onsite transportation.

2) Facility Investment Check Point List (SHE Facility Investment Review Guidelines): Includes checks such as compliance with Waste Management Act for proper facilities, whether hazardous or soil-polluting facilities are applicable, and whether wastewater treatment systems are included

Environmental

Products and Technology Development

▶ Material Issue

Climate Action ▶ Material Issue

» Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

Environmental Management

Water Resources Management

Water Resource Policy

As climate change leads to global challenges like heat waves and droughts, effective water resource management has become increasingly crucial. HD Hyundai Electric diligently monitors monthly water usage at its business sites in Korea to mitigate water stress. HD Hyundai Electric actively manages water consumption and implements reuse practices, including the establishment of a coolant reuse facility within its testing processes. Additionally, the company is exploring methods to recycle discarded water.

Water Stress Management

HD Hyundai Electric utilizes the World Resources Institute (WRI)'s Water Risk Atlas to address the water stress levels at its business sites as part of its water risk management efforts. Located in Ulsan, an area with medium-high water stress (20~40%), the company recognizes the volatility of water supply as a significant long-term risk.

To address this, the company has established a response strategy focused on monitoring and controlling wastewater discharge to minimize water wastage. In 2024, the company generated 338 tons of wastewater, equivalent to 0.15% of the approximately 230,000 tons of municipal water supplied to us, resulting in a financial impact of approximately KRW 28.74 million for wastewater treatment. To manage water risks comprehensively and reduce associated financial impacts, we remain committed to proactive measures. This includes ongoing efforts to decrease water consumption across our living and utility facilities, as well as exploring opportunities for water reuse.

Water Conservation Strategy

Category	Factor	Impact	Financial Impact	Detailed Strategy
Risk	Water stress management	Risk of water supply volatility due to increasing stress in the Ulsan region	338 tons (0.15%) of wastewater generated out of 230,000 tons of water; KRW 28.74 million for wastewater treatment	1) Monitor and control wastewater discharge 2) Explore water reduction and reuse methods

Water Resource Management Activities

HD Hyundai Electric recognizes the importance of water at each site and takes a proactive approach to water shortage risks. The company aggregates annual water usage data and sets water usage intensity targets based on revenue to systematically manage consumption. In 2024, the water usage intensity target was outperformed, and based on trends over the past three years, a mid-to-long-term goal of maintaining intensity below 110 has been set. Additionally, the company aims to reduce its wastewater generation rate to 0.25% or less by 2025. Wastewater generation and treatment performance are regularly reported. Wastewater generation rate is calculated as a percentage of water intake, and treatment costs are used as supplementary indicators to evaluate performance from multiple perspectives. To achieve these goals, a real-time monitoring system is in place. The company actively identifies and improves the causes of excessive water use and wastewater generation to build a sustainable water circulation system.

Wastewater Monitoring

HD Hyundai Electric safely stores wastewater from each production process in collection tanks and ensures 100% of it is treated by certified third-party contractors in compliance with legal standards. Treatment performance reports for water pollutants from contractors are collected semi-annually to verify regulatory compliance and treatment adequacy. To prevent accidents such as leaks during storage and discharge, self-inspections and training for responsible staff are conducted. In 2025, HD Hyundai Electric is reviewing additional permit requirements related to the establishment and closure of wastewater discharge facilities, while continuing to monitor changes in wastewater-generating facilities at its sites.

Water Conservation Targets

Category	Unit	Performance	Target			
		2024	2024	2025	2026	2027
Water consumption intensity ¹⁾	m ³ / KRW billion revenue	76.8	Maintain below 120	Maintain below 110	Maintain below 110	Maintain below 110
Wastewater generation rate	%	0.15	Maintain below 0.25	Maintain below 0.25	Maintain below 0.20	Maintain below 0.20

1) Revenue based on separate financial statements

Environmental

Products and Technology Development

▶ Material Issue

Climate Action ▶ Material Issue

» Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

Environmental Management

Water Pollutants^{1), 2)}

	Category	Unit	2022	2023	2024
Water Pollutants	Total Organic Carbon (TOC) emissions	ton	0.0004	0.0176	0.0014
	Biochemical Oxygen Demand (BOD) emissions	ton	0.0003	0.0055	0.0041
	Suspended Solids (SS) emissions	ton	0.0002	0.0063	0.0006
	Total Nitrogen (TN) emissions	ton	0.0004	0.0056	0.0010
	Total Phosphorus (TP) emissions	ton	0.0000 ³⁾	0.0006	0.0000 ³⁾

1) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

2) Scope of calculation: Ulsan Plant, Seonam Plant

3) TP emissions in 2022 and 2024: 0.00001

Water Use⁶⁾

Category		Unit	Ulsan Plant				Seonam Plant				Total			
			2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Water withdrawal	Total water withdrawal	m ³	209,949	228,917	217,825	206,133	19,364	22,865	22,625	24,120	229,313	251,782	240,450	230,253
	Surface water	m ³	0	0	0	0	0	0	0	0	0	0	0	0
	Groundwater	m ³	0	0	0	0	0	0	0	0	0	0	0	0
	Seawater	m ³	0	0	0	0	0	0	0	0	0	0	0	0
	Rainwater	m ³	0	0	0	0	0	0	0	0	0	0	0	0
	Water supplied by third party (municipal)	m ³	209,949	228,917	217,825	206,133	19,364	22,865	22,625	24,120	229,313	251,782	240,450	230,253
	Total water withdrawal intensity	m ³ /KRW million	-	-	-	-	-	-	-	-	0.148	0.138	0.105	0.077
Water discharge	Total water discharge	m ³	-	-	-	-	-	-	-	-	290	249	264	338
	Third-party water discharge	m ³	290	249	264	338	0	0	0	0	290	249	264	338
Water consumption	Total water consumption	m ³	209,659	228,668	217,561	205,795	19,364	22,865	22,625	24,120	229,023	251,533	240,186	229,915
	Water consumption intensity	m ³ /KRW million	-	-	-	-	-	-	-	-	0.147	0.137	0.105	0.077

6) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

Scope of calculation: Ulsan Plant, Seonam Plant

Air Pollutants⁴⁾

	Category	Unit	2021	2022	2023	2024
Air pollutants	Nitrogen Oxides (NOx) emissions	ton	2.36	2.92	3.58	3.63
	Sulfur Oxides (SOx) emissions	ton	0.19	0.08	0.03	0.004
	Total Suspended Particulates (TSP) emissions	ton	0.83	0.80	0.85	0.63
	Volatile Organic Compounds (VOCs) ⁵⁾ and Total Hydrocarbons (THC) emissions	ton	1.18	0.41	0.63	0.09
	Mercury emissions	ton	0	0	0	0
Air pollutants emission target	VOCs emission target	ton	0.56	0.78	0.89	0.76

4) Scope of calculation: Ulsan Plant, Seonam Plant

5) TP emissions in 2022 and 2024: 0.00001

Environmental

Products and Technology Development

▶ Material Issue

Climate Action ▶ Material Issue

Environmental Management

▶ Resource Circulation and Chemicals

Biodiversity

Social

Governance

Resource Circulation and Chemicals

Resource Circulation

Air Emissions Management via HiSEs System

HD Hyundai Electric continuously monitors pollutant concentrations at 75 emission outlets through its HiSEs system. We apply internal standards that are 50–90% stricter than legal limits, enabling more stringent environmental control. When emission concentrations are at risk of exceeding thresholds, relevant departments are promptly notified to initiate corrective actions such as replacing activated carbon, inspecting prevention facilities, or replacing outdated equipment. In 2024, seven facility upgrades were completed at Ulsan Plants 1 and 2, and all air pollutant emission and treatment facilities at the Seonam Plant were equipped with IoT-based measurement devices, further strengthening emissions control.

Environmental Equipment Inspection

To ensure clean site operations and proper emissions control, certified environmental engineers regularly inspect environmental facilities across all sites. Monthly monitoring includes compliance with operational standards and checks for damage to air pollution prevention equipment and waste storage areas. Pollutant concentrations are measured according to legal cycles, and results are reported through both internal and government systems to ensure thorough compliance and oversight.

In 2024, the company conducted an average of two inspections per month, resulting in the decommissioning of three outdated air emission facilities and four new environmental facility investments or replacements. These efforts contribute to improved pollutant management and more efficient energy consumption at each site.

Insulating Oil Recycling

HD Hyundai Electric removes moisture and impurities from insulating oil, a key material, using filtering equipment to enable reuse. Insulating oil that exceeds allowable impurity levels is recycled by external service providers, thereby reducing environmental impacts.

Plastic Resource Circulation

We regularly conduct department-level campaigns to promote waste sorting and improve resource circulation. Collected clear plastic bottles are upcycled into employee uniforms. We are also exploring new recycling and reuse initiatives to raise awareness among employees and further enhance circular resource practices.

Participation in Circular Economy Performance Management

As a participant in the Circular Economy Performance Management System, HD Hyundai Electric selects disposal methods that align with circular economy goals for site-generated waste. Waste is sorted and stored according to designated codes and treated by authorized service providers. Monthly monitoring is conducted to improve recycling rates, and in 2024, we achieved key management goals such as recycling rates and final disposal rates¹⁾. We will continue to strengthen our management system through ongoing performance tracking.

1) Circular utilization rate, Final disposal rate

Product Life Cycle Management

Category		Unit	2022	2023	2024
Products with LCA conducted	Number of products with simplified LCA conducted	ea	-	-	1

Purchases of green products and service²⁾

Category		Unit	2022	2023	2024
Purchases of green products and service		KRW million	0	0	2
Total purchase amount		KRW million	1,387,459	1,621,524	1,708,150

2) Based on domestic headquarters data

Resource Reuse Performance³⁾

Category		Unit	2022	2023	2024
Recycled material item	PET(Polyethylene terephthalate)	kg	678	937.6	929.9

3) Based on domestic headquarters data

Environmental

Products and Technology Development
▶ Material Issue

Climate Action ▶ Material Issue

Environmental Management

▶ Resource Circulation and Chemicals

Biodiversity

Social

Governance

Resource Circulation and Chemicals

Waste Management

Waste Management Program

HD Hyundai Electric monitors the discharge and treatment of waste across all its sites. Through regular inspections of waste storage areas, we work to prevent leaks from accumulated waste and reduce the risks associated with long-term storage. We entrust certified disposal companies with proper waste treatment and, in accordance with the Act on Promotion of Transition to a Circular Economy and Society, actively minimize waste generation and enhance recycling rates. While increased orders are expected to lead to greater waste generation, we are preparing various initiatives, including separate collection campaigns, to promote resource circulation in line with government policies.

Waste Reduction Targets and Performance

HD Hyundai Electric has established a company-wide target for waste recycling rates and is strengthening management practices to promote the recycling of waste as resources. Separate collection containers for each waste type are operated at the site level to prioritize the recycling of industrial resources, and monthly monitoring is conducted to manage the volume of designated waste. In 2024, HD Hyundai Electric achieved a company-wide recycling rate of approximately 62%, and it plans to continue regular inspections to further reduce non-recyclable waste.

Waste Recycling (Reuse) Rate¹⁾

Category	Unit	Actual	Target			
		2024	2024	2025	2026	2027
Waste recycling (reuse) rate	%	62	≥ 60	≥ 62	≥ 63	≥ 64

1) Scope: Ulsan Plant, Seonam Plant

Waste^{2), 3)}

Category		Unit	2021	2022	2023	2024
Total Waste	Total generation	ton	2,593	2,803	3,285	3,537
	Reuse & recycling Rate	%	59.66	58.83	59.97	62.28
	Total reuse & recycling volume	ton	1,547	1,649	1,970	2,203
	Total disposal volume	ton	2,593	2,803	3,285	3,537
Non-hazardous Waste	Total generation	ton	2,233	2,457	2,879	3,139
	Reuse & recycling (subtotal)	ton	1,310	1,411	1,695	1,951
	Reuse volume	ton	0	0	0	0
	Recycling volume	ton	1,310	1,411	1,695	1,951
	Disposal (subtotal)	ton	923	1,046	1,184	1,189
	Landfilling	ton	25	72	37	30
	Incineration	ton	898	974	1,147	1,159
	- Energy recovery incineration	ton	0	0	0	0
	- Non-energy recovery incineration	ton	898	974	1,147	1,159
	Other	ton	0	0	0	0
Hazardous Waste	Total generation	ton	360	347	406	398
	Reuse & recycling (subtotal)	ton	238	238	275	253
	Reuse volume	ton	0	0	0	0
	Recycling volume	ton	238	238	275	253
	Disposal (subtotal)	ton	122	109	130	145
	Landfilling	ton	0	0	42	0
	Incineration	ton	122	109	83	145
	- Energy recovery incineration	ton	0	0	0	0
	- Non-energy recovery incineration	ton	122	109	83	145
	Other	ton	0	0	5	0
High-Level Radioactive Waste	Total Generation	ton	0	0	0	0

2) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

3) Scope of calculation: Ulsan Plant, Seonam Plant

Environmental

Products and Technology Development

▶Material Issue

Climate Action ▶Material Issue

Environmental Management

▶ Resource Circulation and Chemicals

Biodiversity

Social

Governance

Resource Circulation and Chemicals

Chemical Management

Chemical Management Process

To minimize harm to health and the environment, HD Hyundai Electric systematically manages all stages from the purchase of chemical substances to their disposal. At the purchasing stage, we check the harmfulness of chemical substances and minimize the use of identified hazardous substances or purchase substitute substances. At the usage stage, we monitor whether chemicals are handled safely and legally, conduct chemical emissions and statistical surveys, and report them to the competent authority. At the disposal stage, we comply with relevant laws and ensure disposal through a certified waste disposal company. In addition, HD Hyundai Electric continuously monitors international regulatory trends—including EU REACH, SVHC, and PFAS—and is working to enhance its internal chemical management system accordingly.

Chemical Database Management

To mitigate risks related to toxicity and hazards within business sites, HD Hyundai Electric conducts hazard assessments on chemical substances from the procurement stage and restricts the use of regulated chemicals in principle. The company continuously monitors its internal chemical substance database and promptly responds to changes in legislation or regulatory designations, thereby minimizing environmental and cost-related risks in advance.

Chemical Management Data¹⁾

Category		Unit	2022	2023	2024
Chemical use and discharge	Chemical discharged	ton	0.239	0.504	0.468
Hazardous chemical use and discharge	Hazardous chemical use volume	ton	0	0	0
	Hazardous chemical discharge volume	ton	0	0	0

1) Scope: Domestic operations

Operation of Chemical Hazard Assessment

HD Hyundai Electric conducts hazard assessments to proactively identify and respond to regulations related to chemical substances. Partner companies are required to submit Material Safety Data Sheets (MSDSs) and information on chemical components to our hazard assessment system. Based on the submitted data, we assess the suitability of the chemical substances from environmental and safety perspectives and ensure that only approved products are allowed for delivery. Additionally, we regularly monitor our chemical database via the HiSEs system, keep MSDS data up to date, and continuously verify their appropriateness. The main chemical substances used by HD Hyundai Electric include insulating oil, insulating gas, paint, and thinner. In 2024, a total of 89 hazard assessments were conducted, resulting in restrictions on the entry of hazardous chemicals into the company (86 approved, 3 rejected).

Environmental

Products and Technology Development

▶ Material Issue

Climate Action ▶ Material Issue

Environmental Management

Resource Circulation and Chemicals

» Biodiversity

Social

Governance

Biodiversity

Biodiversity Governance

HD Hyundai Electric manages natural capital under the supervision of the ESG Committee, which operates under the Board of Directors. The ESG Committee regularly receives reports on biodiversity conservation and natural capital management activities, reviews the impacts of business operations on species and ecosystems, and deliberates on strategies to avoid, mitigate, or eliminate associated risks. In 2024, the Committee approved a Memorandum of Understanding (MOU) to strengthen biodiversity conservation efforts and reviewed future plans. Going forward, biodiversity will be integrated into the company-wide Enterprise Risk Management (ERM) system as part of non-financial risk governance. If necessary, we also engage in collaboration with external stakeholders such as local governments and environmental experts.

Biodiversity Governance Structure



Key Board-Level Biodiversity Reports

Committee	Date	Type	Agenda Items
ESG Committee	2024.02.02	Approval	- (2023 Main achievements) Biodiversity conservation activities (plogging at the Ulsan Jujeon coast, invasive species removal at Tancheon) - (2024 Main Plans) Biodiversity risk assessment and conservation efforts
ESG Committee	2024.04.23	Report	- MOU signed for ESG environmental collaboration with Seongnam City - Plan for biodiversity conservation activities

Biodiversity Conservation Policy

HD Hyundai Electric recognizes the importance of biodiversity for sustainable development and has established and implemented policies to ensure its conservation. The company minimizes activities in protected areas and monitors risks and impacts on natural capital across its operations. This policy applies to all sites as well as to the wider value chain, including suppliers and partners. For sites that fall under international conservation conventions—such as World Heritage Areas and IUCN Category I–IV protected areas—we strictly comply with relevant national and local legal requirements. HD Hyundai Electric remains committed to conserving and enhancing biodiversity and fulfilling its role as a responsible corporate citizen.

Biodiversity Risk Assessment

HD Hyundai Electric has conducted a biodiversity risk assessment based on the LEAP approach (Locate, Evaluate, Assess, Prepare) recommended by the Taskforce on Nature-related Financial Disclosures (TNFD). This helps identify both risks and opportunities related to the company's dependency and impact on natural capital, particularly focusing on core business sites and sectors. The results are incorporated into action plans to mitigate biodiversity-related risks.

Biodiversity Risk and Opportunity Management Process (LEAP Approach)

Locate	Identify analysis locations Assess vegetation and species distribution	· Identify value chain and key sites · Identify habitats of major species and proximity to protected areas near each site
Evaluate	Assess dependency & impact on nature	· Use TNFD's recommended tool (ENCORE) to evaluate natural capital dependencies and impacts
Assess	Identify risks & opportunities Mitigation measures	· Identify risk and opportunity factors based on dependency and impact · Establish mitigation measures
Prepare	Disclose and implement actions	· Disclose biodiversity risk assessment results and implement conservation initiatives

Environmental

Products and Technology Development
▶Material Issue

Climate Action ▶Material Issue

Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social
Governance

Biodiversity

Biodiversity Risk Assessment – Locate Phase

To assess biodiversity risks, HD Hyundai Electric has identified key areas across each stage of its value chain and refined the assessment scope down to the city/district level to enhance accuracy. Notably, for this assessment, locations were selected based on the actual delivery destinations of products rather than the headquarters of the clients, thereby improving the realism and reliability of the analysis. For areas where we have our own sites, the presence of endangered species was analyzed to understand the ecological sensitivity of each region. Going forward, the company plans to expand its assessment scope across the entire value chain and conduct in-depth analysis of species habitats near each site to further enhance the comprehensiveness of the assessment.

Biodiversity Assessment Scope

Value Chain	Criteria	Location		
Upstream	Major supply chain	Gyeongju-si, Gyeongsangbuk-do	Buk-gu, Ulsan	Cheongju-si, Chungcheongbuk-do
		Eumseong-gun, Chungcheongbuk-do	Ulju-gun, Ulsan	-
Own Operation	Domestic sites	Headquarters: Seongnam-si, Gyeonggi-do	Seoul Office: Jongno-gu, Seoul	Ulsan Plant: Dong-gu, Ulsan
		Seonam Plant: Nam-gu, Ulsan	Reliability Center: Yongin-si, Gyeonggi-do	Anseong Plant: Anseong-si, Gyeonggi-do
Downstream	Major delivery areas	Namwon-si, Jeollabuk-do	Seongnam-si, Gyeonggi-do	Cheongju-si, Chungcheongbuk-do
		Dangjin-si, Chungcheongnam-do	Gyeongju-si, Gyeongsangbuk-do	-

IUCN Red List Species Near Company Sites

Category	기준	Unit	2022	2023	2024
Species near sites classified as endangered	IUCN Red List (Total)	species	-	-	1,100
	IUCN Red List – CR (Critically Endangered)	species	-	-	9
	IUCN Red List – EN (Endangered)	species	-	-	43
	IUCN Red List – VU (Vulnerable)	species	-	-	57
	IUCN Red List – NT (Near Threatened)	species	-	-	54
	IUCN Red List – LC (Least Concern)	species	-	-	937

Distribution of Endangered Species across Company Sites¹⁾

Species \ Site	Headquarters	Seoul Office	Ulsan Plant	Seonam Plant	Reliability Center	Anseong Plant
	Seongnam-si, Gyeonggi-do	Jongno-gu, Seoul	Dong-gu, Ulsan	Nam-gu, Ulsan	Yongin-si, Gyeonggi-do	Anseong-si, Gyeonggi-do
Endangered Class I ²⁾	Mammals	-	-	-	Otter	Otter
	Birds	-	-	-	Chinese Egret	White-tailed Eagle
	Amphibians, Reptiles	-	-	-	-	Suwon Treefrog
	Insects	-	-	-	-	-
Endangered Class II ³⁾	Mammals	Leopard Cat, Siberian Flying Squirrel	-	-	Leopard Cat	Leopard Cat
	Birds	Crested Honey Buzzard, Eurasian sparrowhawk, Eurasian Hobby, Himalayan owl, Long-billed plover	Eurasian Hobby	Peregrine Falcon, Osprey, Eurasian Hobby	Osprey, Eurasian sparrowhawk, Black Kite, Eagle Owl, Eurasian Goshawk, Upland Buzzard, Long-billed plover	Eurasian spoonbill, Cinereous Vulture, Watercock, Peregrine Falcon, Chinese sparrowhawk, Eurasian sparrowhawk, Hen harrier, Eurasian Goshawk, Whooper Swan, Long-billed plover
	Amphibians, Reptiles	Narrow-mouthed Toad	Kori Salamander	-	-	Seoul frog, Narrow-mouthed Toad
	Fish	-	-	-	-	-
	Insects	-	-	-	Diving Beetle	-
	Invertebrates	-	-	-	Clithon retropictus	-
	Terrestrial plants	Prickly Water Lily	-	-	-	-

1) Source: Ministry of Environment / National Institute of Ecology, Statistics on Endangered Wildlife
2) Class I Endangered Species: Wildlife whose populations have drastically declined and are in immediate danger of extinction
3) Class II Endangered Species: Wildlife whose populations are significantly decreasing and are at risk of becoming endangered in the near future

Environmental

Products and Technology Development

▶Material Issue

Climate Action ▶Material Issue

Environmental Management

Resource Circulation and Chemicals

▶ Biodiversity

Social

Governance

Biodiversity

Biodiversity Risk Assessment – Evaluate Phase(Dependency and Impact Analysis on Natural Capital)

HD Hyundai Electric utilized the ENCORE tool¹⁾ to identify the company's dependencies and impacts on natural capital in the Ulsan and Seongnam regions. The assessment revealed that the primary dependencies relate to ecosystem services associated with water resources, such as water supply, precipitation regulation, and water purification. This indicates a high dependency of business operations in these areas on aquatic ecosystems. In terms of impact, the primary factor identified was environmental pollution resulting from the discharge of hazardous substances. In addition, physical risk assessments were conducted for items with relatively high dependencies (e.g., water, typhoons), and reputational risks were also evaluated for issues with high analytical reliability and availability using the WWF Biodiversity Risk Filter. Through this analysis, HD Hyundai Electric aims to identify and address risks in advance related to natural capital and establish effective response strategies, thereby reinforcing the foundation for sustainable business operations.

Analysis of Dependency and Impact on Natural Capital

Dependency²⁾	Natural Capital ▶ Business Activities	Category	Dependency Level ⁴⁾
		Water supply	Medium
		Precipitation regulation	Medium
		Water purification	Medium
		Water flow regulation	Medium
		Flood mitigation	Medium
		Storm protection	Medium
Impact³⁾	Business Activities ▶ Natural Capital	Category	Impact Level ⁴⁾
		Environmental pollution from hazardous substance emissions (water and soil)	High
		Ecological disturbance from artificial factors (e.g., noise, lighting)	Medium
		Emissions of general air pollutants (non-GHG)	Low
		Generation and disposal burden of solid waste	Low
		Consumption of water resources	Low
		Greenhouse gas emissions	Very Low ⁵⁾

1) ENCORE: Exploring Natural Capital Opportunities, Risks and Exposure
2) Dependency refers to the extent to which a business relies on ecosystem services provided by nature
3) Impact refers to the extent to which business activities and production processes negatively affect the environment through resource consumption, emissions, or pollutants
4) Level: Dependency and impact levels are categorized into five tiers: Very High, High, Medium, Low, and Very Low
5) According to an update to the ENCORE tool, the impact level of greenhouse gas (GHG) emissions has been revised from "High" to "Very Low." This reflects a reassessment that the direct impact of GHG emissions from this sector on natural capital services is relatively low. The previous evaluation included Scope 3 emissions, but as Scope 3 is now excluded, the impact level has been downgraded

Site-Level Biodiversity Risk Assessment Results

Score ⁶⁾		5.0-4.2 4.2-3.4 3.4-2.6 2.6-1.8 1.8 - 1.0					
Risk Factor		Ulsan Plant	Reliability Center	Anseong Plant	Headquarters	Seoul Office	Seonam Plant
Physical Risks	Access to water resources						
	Water quality condition						
	Typhoon exposure risk						
Reputational Risks	Proximity to protected areas						
	Proximity to key biodiversity areas						
	Media attention						
Average Site Risk Score							

6) Risk scores are based on a 5-point scale, where a higher score indicates a greater level of biodiversity-related risk associated with each site

Environmental

Products and Technology Development

► Material Issue

Climate Action ► Material Issue

Environmental Management

Resource Circulation and Chemicals

► Biodiversity

Social

Governance

Biodiversity

Biodiversity Risk Assessment – Assess Phase (Identification of Risks and Opportunities)

HD Hyundai Electric has identified key potential risks and opportunities by assessing its dependency on and impact on natural capital.

Category	Type	Sub-Type	Identified Issue	Business Impact	Financial Impact	Stakeholders
Risk	Transition Risk	Reputational risk	(Corporate image risk) Potential loss of stakeholder trust and reputational damage if negative impacts on biodiversity occur	- Downgrade in ESG ratings and strained relationships with institutional investors and government agencies - Reduced customer preference for products and services - Fewer opportunities for new contracts due to weaker reputation compared to competitors	- Long-term revenue decline due to decreased brand value - Increased marketing and communication costs to rebuild trust	Customers, investors, NGOs and civic groups
		Regulatory & legal risk	(Legal liability and litigation risk) Regulatory violations in manufacturing may lead to sanctions or lawsuits	- Administrative penalties such as decertification or exclusion from government-supported projects - Contract termination or weakened trust with clients	- Fines, compensation, and other direct costs - Increased legal defense and compliance costs	Government, NGOs, civic groups
	Physical Risk	Chronic risk	(Raw material scarcity and price increases) Biodiversity loss intensifies resource scarcity → raw material prices rise	- Delays in production planning and disruptions in delivery schedules - Greater need to diversify procurement strategies and sourcing	- Increase in manufacturing costs → decrease in operating margins - Increase in early procurement and stockpiling costs to secure inventory	Partner companies, customers, investors
		Chronic risk	(Production instability) Process disruptions due to resource shortage and environmental changes → quality decline and delivery delays	- Reduced reliability due to failure to meet delivery deadlines - Increased difficulty in forecasting production schedules and costs	- Higher warranty and quality assurance costs, decreased sales and unexpected production losses - Weakened long-term growth potential due to unstable revenue base	Customers, employees
Opportunity		- Enhancement of brand and reputation - Increased market access	(Building an environmentally friendly image) Establishing an environmentally friendly image through biodiversity conservation and sustainable resource use → gaining positive social recognition and a competitive edge in the market	- Improved ESG ratings and compliance with global client delivery standards - Greater participation in public sector projects - Enhanced corporate image → easier recruitment and partner engagement	- Preferential financing terms - Potential revenue growth (increased demand from environmentally responsible clients) - Lower long-term marketing costs and higher corporate value	Customers, investors, NGOs and civic groups
		- Innovation and new product development - Enhanced regulatory compliance	(Development of environmentally friendly technologies) Enhancing product energy efficiency and developing alternatives to SF ₆ in high-voltage circuit breakers to protect biodiversity and strengthen competitiveness	- Differentiated product lineup compared to existing products - Advantage in government subsidies, green certifications, and bidding processes - Strengthened environmental compliance for overseas expansion	- Increased sales of high value-added products → improved profitability - Tax incentives for R&D and subsidies for green technologies	Partner companies, customers, government
		- Enhancement of brand and reputation - Improved operational resilience	(Biodiversity conservation activities) Building trust with local communities through biodiversity conservation efforts → Strengthening social relationships	- Operational stability through community engagement - Long-term local partnerships	- Reduced community engagement costs - Increased investor interest due to stronger ESG performance	Local communities, NGOs, civic groups, government
		- Innovation and new product development - Improved operational resilience	(Education and awareness) Promoting environmentally responsible awareness and behavior through biodiversity and environmental training for internal employees	- Stronger internal response to regulations and client demands - Generation of ideas for product and process innovation - Embedding ESG culture → improved execution of sustainability strategies	- Better regulatory compliance and customer responsiveness → Improved operational efficiency and cost savings	Employees
		- Cost savings - Improved operational resilience - Economic value creation	(Natural resource efficiency and circular activities) Creating environmental and economic value through circular activities such as product recovery, recycling, and the use of renewable energy	Enhanced brand image as a leader in circular economy trends	- Reduced material and energy costs - Potential revenue from recycled products and value-added services	Partner companies, government, customers

Environmental

Products and Technology Development

▶ Material Issue

Climate Action ▶ Material Issue

Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

Biodiversity

Biodiversity Risk Assessment – Assess Phase (Natural Capital Impact Mitigation Activities)

HD Hyundai Electric has analyzed its activities to mitigate negative impacts on natural capital across the business value chain using the AR3T framework (Avoid, Reduce, Restore, Regenerate, Transform), as recommended by the Science Based Targets Network (SBTN) and aligned with the guidance of the TNFD. The following summarizes initiatives that are either underway or planned across upstream, direct operations, and downstream/end-of-life stages:

Category		Upstream	Direct Operations	Downstream / End-of-Life
Avoid & Reduce	Approach	Responsible sourcing	Improve energy efficiency and minimize environmental impact	Environmentally sustainable product design
	Activities	Recommend and apply the Biodiversity Conservation and No Deforestation Policy to partner companies to prevent ecosystem degradation	Replaced ceiling lights in factories and office buildings with LED lighting to improve energy efficiency, and continued to increase the share of renewable energy use through the purchase of Renewable Energy Certificates (RECs).	- Developed products with reduced environmental impact, such as transformers using vegetable and synthetic oil, and explosion-proof transformers, reflecting market demand for carbon neutrality through GHG reduction and energy efficiency. - Established technology development and investment strategies to expand the GREENTRIC product line; verified effectiveness through green technology and product certifications. - Conducted Life Cycle Assessment (LCA) to analyze product carbon emissions.
Regenerate & Restore	Approach	Use of sustainable raw materials	Ecosystem restoration and protection around sites	Products and services that contribute to natural recovery
	Activities	Adoption of materials that reduce environmental impact, such as recycled materials and low-carbon certified products (e.g., use of environmentally sustainable masking tape and materials that meet green purchasing standards)	Conducted various activities to conserve and restore ecosystems near sites, including protection of Siberian Flying Squirrel, plogging activities at Jujeon coast, and removal of invasive plants at Tancheon.	Changed product packaging methods to reduce resource consumption and waste (e.g., switched packaging for rotating machinery from open box to skid method to reduce wood usage and waste generation).
Transform	Approach	Strengthening responsible supply chain management	Embedding sustainable management systems	Transitioning product and service portfolio
	Activities	Provided ESG assessments and tailored consulting to partner companies to enhance ESG capabilities and adopt sustainable sourcing practices.	Established long-term goals and implementation plans: Net Positive Impact (NPI) for biodiversity by 2050, zero deforestation by 2050, carbon neutrality by 2050, and transition to 100% renewable energy (RE100) by 2040.	Expanded the product portfolio based on high-efficiency and environmentally sustainable technologies such as SF₆-free GIS, ESS (Energy Storage Systems), and EMS (Energy Management Solutions).

Environmental

Products and Technology Development

▶ Material Issue

Climate Action ▶ Material Issue

Environmental Management

Resource Circulation and Chemicals

Biodiversity

Social

Governance

Biodiversity

Biodiversity Risk Assessment – Prepare Phase

On May 17, 2024, HD Hyundai Electric carried out a biodiversity conservation activity at Maengsan Ecological Forest in Seongnam-si to support the expansion of the habitat for the Siberian flying squirrel, a Class II endangered wild mammal confirmed to inhabit the area. The initiative aimed to provide safe nesting sites and improve the living environment, thereby contributing to species conservation.

A total of 40 artificial nests were installed within Maengsan Ecological Forest, known to be a key habitat for the species. The company is conducting regular monitoring of the installed nests to track nesting activity and presence of droppings, enabling the observation of behavioral patterns and population trends. Based on these findings, we plan to continue ongoing habitat management and protection initiatives.

Habitat Management Area and Nest Installation Status for the Siberian Flying Squirrel¹⁾

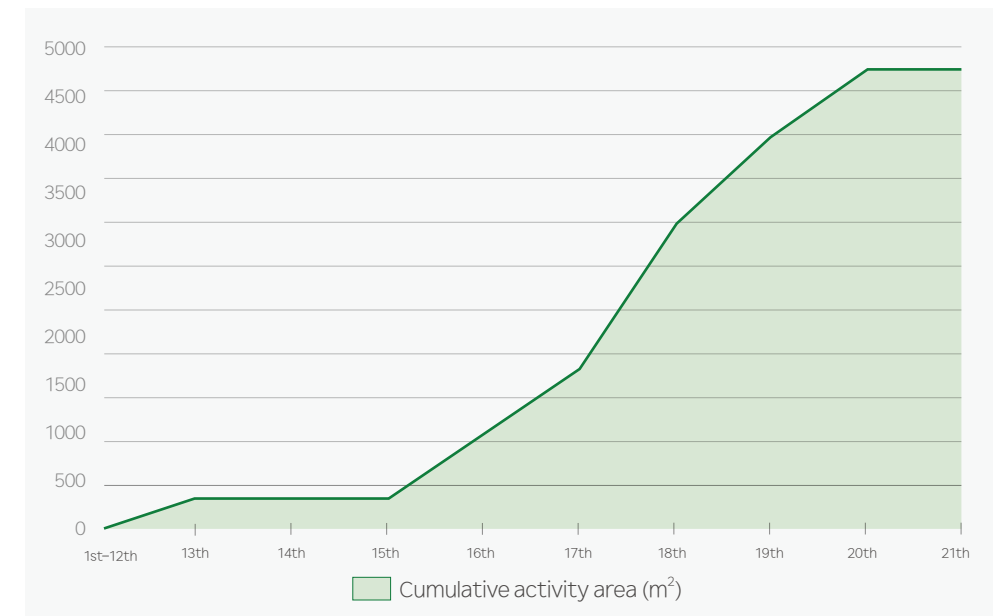


¹⁾ Yellow rectangles represent the siberian flying squirrel management area; blue dots represent artificial nest installation points

Siberian Flying Squirrel Habitat Conservation Activity

In May 2024, HD Hyundai Electric installed artificial nests in areas with high potential for Siberian flying squirrel habitation and began regular observation. By December 2024 (13th monitoring round), evidence such as droppings was found, confirming use of the nests. Subsequently, a 10-meter radius around each identified site was designated as a key observation zone, and the area (approx. 314.16 m² per zone) was used to estimate activity coverage. As of the 21st monitoring round in 2025, signs of habitat use were found in 15 individual sites, totaling a cumulative monitored habitat area of approximately 4,712.39 m². This conservation activity is conducted within the designated management zone (total area: 18,060.96 m²) established to protect the habitat of the Siberian flying squirrel in the Maengsan area and the company will continue observation and protection efforts to support local biodiversity.

Expansion Trend of Siberian Flying Squirrel Activity Area



Environmental

Products and Technology Development

▶ Material Issue

Climate Action ▶ Material Issue

Environmental Management

Resource Circulation and Chemicals

» Biodiversity

Social

Governance

Biodiversity

Biodiversity Targets

HD Hyundai Electric recognizes the prevention of biodiversity loss and the conservation and restoration of healthy ecosystems as one of its key corporate responsibilities. To fulfill this, the company is systematically expanding the scope of biodiversity risk assessments and continuously advancing impact assessment methods at the process and product levels. Additionally, the company is strengthening its capabilities in managing waste and pollutants generated during business operations and will gradually expand efforts to identify and manage biodiversity impacts in collaboration not only across our own sites, but also with suppliers and partner companies.

Biodiversity Targets

2024 Target	2024 Performance
Conduct biodiversity risk assessments for 3 domestic sites	Completed biodiversity risk assessments for 6 domestic sites
2025 Target	Mid- to Long-Term (by 2030)
Conduct biodiversity risk assessment for the new Cheongju plant	Expand biodiversity risk assessments to overseas subsidiaries and affiliates

Biodiversity Management

Category		Unit	2022	2023	2024
Site Biodiversity Impact Assessment	Sites with biodiversity impact assessments conducted	sites	0	3	6
	Total number of sites	sites	6	6	6
	Percentage of sites with biodiversity assessments	%	0	50	100
	Sites with significant biodiversity impacts or in proximity to critical biodiversity areas	sites	0	0	0
	Among those, number of sites with biodiversity management plans in place	sites	0	0	0

SOCIAL

Human Rights	56
Talent Management	60
Health and Safety ▶ Material Issue	70
Supply Chain Management ▶ Material Issue	78
Raw Materials	84
Product Safety and Quality ▶ Material Issue	85
Local Community	88



Human Rights

Human Rights Governance

HD Hyundai Electric systematically oversees human rights through its Board of Directors and the Human Rights Committee, ensuring respect for the rights of all stakeholders across its business operations. A dedicated human rights team is responsible for policy formulation and implementation, training, and human rights impact assessments. The company establishes annual corrective action plans to enhance its human rights practices. In particular, it conducts annual human rights impact assessments to identify potential risks and implements follow-up actions to mitigate them.

Human Rights Governance Structure and Roles



Human Rights Committee

The Human Rights Committee deliberates on key issues related to human rights, including the declaration of the company's human rights commitment and the formulation and revision of related policies. In 2024, the committee reviewed follow-up actions in response to findings from the 2023 Human Rights Impact Assessment.

Key Agenda of the Human Rights Committee

Date	Key Agenda
December 27, 2024	- Report on progress of the group-wide Human Rights Governance Project - Approval of the Human Rights Committee composition plan - Review of improvement measures based on the 2023 Human Rights Impact Assessment

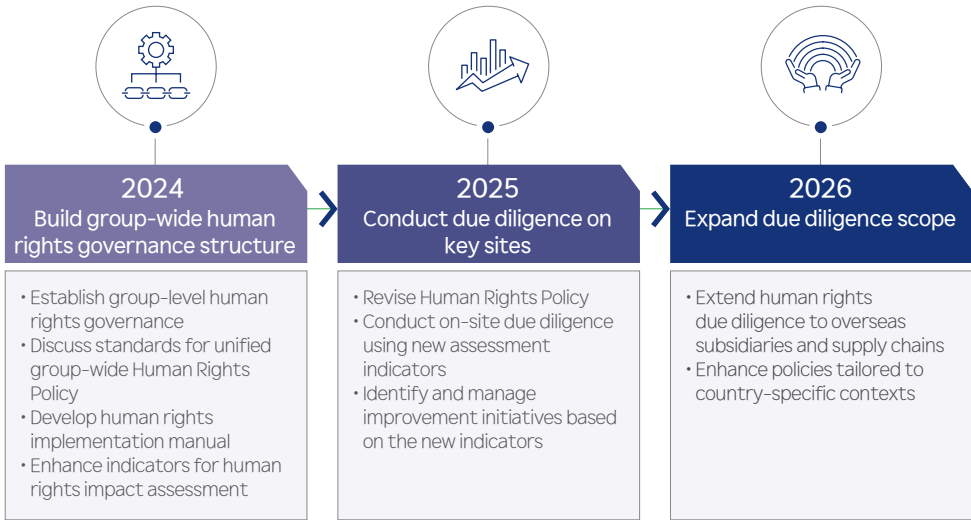
Human Rights Policies

HD Hyundai Electric is committed to respecting and promoting human rights as outlined in the Universal Declaration of Human Rights (UDHR), the UN Guiding Principles on Business and Human Rights (UNGPs), the OECD Guidelines for Multinational Enterprises, the OECD Due Diligence Guidance for Responsible Business Conduct, the ILO Declaration on Fundamental Principles and Rights at Work, and the EU Corporate Sustainability Due Diligence Directive (CSDDD), and strives to align its practices with these global standards across all business activities.

Human Rights Roadmap

In 2024, HD Hyundai Electric launched the Group Human Rights Governance Project, which serves as the foundation for its future human rights strategy. In the long term, the company aims to gradually expand its due diligence scope to overseas subsidiaries and value chain partners in alignment with EU CSDDD requirements.

Mid- to Long-Term Human Rights Targets



Human Rights

Human Rights Risk Management

Human Rights Impact Assessment

HD Hyundai Electric conducts company-wide human rights impact assessments under the leadership of its dedicated human rights function. These assessments are carried out at least once a year to identify risks that business operations and key processes may pose to the human rights of employees and external stakeholders. Based on the results, improvement tasks are identified and follow-up actions are implemented. The findings are reviewed by the Human Rights Committee and reported to the CEO to inform decisions that consider human rights risks.

In 2022 and 2023, we conducted internal assessments, while from 2024, a standardized group-wide evaluation framework—comprising globally recognized indicators and industry-specific metrics—has been applied across HD Hyundai Group. In particular, the 2024 assessment was conducted by an external professional institution, enhancing the objectivity and credibility of the evaluation. The outcomes and recommended improvements for actual or potential human rights risks are reported to and reviewed by the Human Rights Committee.

Human Rights Impact Assessment Categories

Main Category	Items (Total: 339 questions)			
Human Rights Governance	Human rights policy statement	Human rights impact assessment	Human rights governance system	Human rights performance
	Remediation procedures	Reporting and investigation system	Human rights training	
Labor	Forced labor	Child labor and young workers	Working hours	Wages and benefits
	Prohibition of discrimination and harassment	Freedom of association and collective bargaining	Other labor issues	
Occupational Health and Safety	Occupational health and safety system	Emergency response	Occupational injuries and diseases	Industrial hygiene
	Manual labor	Machinery and equipment safety	Food, sanitation, and housing	
Ethics	Business integrity and prohibition of improper benefits	Disclosure of information	Intellectual property	Fair trade
	Privacy protection	Consumer protection	Protection of local communities' rights	
Supply Chain Management	Supply chain management system	Contracts	Partner company evaluation	
	Partner company risk management	Responsible mineral sourcing / conflict minerals	Grievance mechanism	
Environment	Soil contamination	Water management	Sanitation facilities	
	Chemicals	Ecosystem protection	Environmental information and training	

Human Rights Impact Assessment Process



1) PAP(Preventive Action Plan): A proactive plan designed to prevent potential human rights risks from occurring in the future
2) CAP(Corrective Action Plan): A plan to address identified human rights violations or risks and preventing recurrence

Human Rights

Human Rights Impact Assessment Results

HD Hyundai Electric has identified key human rights issues and potential risks through its human rights impact assessment, and derived improvement tasks accordingly. The evaluation was conducted using 339 indicators across six key themes of human rights management, achieving an overall implementation rate of 82%. In 2024, unlike previous self-assessments, the company engaged an external professional agency to enhance objectivity and impartiality. Going forward, the scope of assessment will be expanded to include overseas sites and external stakeholders.

Overview of Human Rights Impact Assessment

Subjects of Assessment	Assessment Areas	Assessment Methods
HD Hyundai Electric’s domestic sites	① Human rights governance ② Labor ③ Occupational health and safety ④ Ethics ⑤ Supply chain management ⑥ Environment	- Document-based: Checklist-based assessment (339 indicators) - On-site audit

Key Human Rights Risks – Mitigation Measures and Effectiveness Analysis

Key human rights issue	Risk mitigation plan	Stakeholders impacted	Mitigation measures and effectiveness assessment
Human rights governance	Enhance impact assessment system and expand audit/education to overseas subsidiaries and partner companies	Employees, local communities	- Conducted document-based and on-site assessments via third-party experts - Provided human rights training to employees
Labor	Expand support for vulnerable workers	Employees	- Operated support programs (e.g., maternity protection, parental/infertility support) - Held quarterly labor-management councils with 100% implementation of agreements (30 agreements in 2024)
Occupational health and safety	- Expand ISO 45001 certification coverage - Establish and publicly announce HSE policy - Strengthen monitoring of workplace safety equipment	Employees, partner companies	- Operated HSE management system based on ISO 45001 - Provided safety training for partner companies - Operated safety incentive program (e.g., risk assessment competition) - Established HSE policy
Ethics	Strengthen compliance culture and system	Employees, customers, partner companies	- Declared and disclosed ethics and compliance commitment - Operated fair trade CP (Compliance Program) - Conducted data privacy training
Supply chain management	- Strengthen human rights due diligence for partner companies - Expand partner training programs - Broaden ESG assessment scope	Partner company	- Increased ESG-assessed suppliers (from 40 in 2023 to 61 in 2024) - Signed special agreements with 506 suppliers for worker rights protection
Environment	- Continue biodiversity initiatives and monitor quantitative performance - Develop new community-linked biodiversity programs - Expand biodiversity risk assessment coverage	Employees, local communities	- Conducted Siberian flying squirrel conservation activities - Removed invasive species (e.g., Ambrosia trifida, Humulus japonicus) along Tancheon stream in November 2024 - Expanded biodiversity risk assessment from 3 to 6 sites

Human Rights

Grievance Handling

HD Hyundai Electric operates a grievance handling channel through which employees and external stakeholders can anonymously report cases of human rights violations. The channel is available in Korean, English, and Chinese, ensuring accessibility for employees and stakeholders at all sites, including those overseas. In addition, quarterly dialogue sessions are held with personnel across all levels—including section leaders, senior foreman, assistant foreman, and non-managerial employees—to listen to their concerns related to the company. When a report of a human rights violation is received, the details are reviewed and investigated, followed by a discussion on appropriate remedies. In preparation for potential cases of workplace sexual harassment, designated personnel have been assigned, and a contact system is in place. Furthermore, to prevent retaliation such as unfair treatment or discrimination against whistleblowers, the company guarantees anonymity and confidentiality for both the reporter and the reported content. In 2024, a total of two human rights-related grievances were reported, both of which have been resolved.

Grievance Handling Process



Grievance Channels

Grievance Channels

Stakeholder	Primary communication channels
Employees	Employee representative bodies, intranet, hotline, offline reporting
External stakeholders (customers, local communities, partner companies)	Intranet, hotline, offline reporting

Site Human Rights Impact Assessment

	Category	Unit	2022	2023	2024
Human rights impact assessment at sites	Implementation rate (%)	%	100	100	100
	Number of employees at assessed sites	persons	2,089	2,124	2,189

Human Rights Grievance Reports^{1), 2)}

	Category	Unit	2022	2023	2024
Number of reports	Number of human rights-related reports	cases	3	1	2
	Number of actions taken on human rights-related cases	cases	3	1	2
Resolution rate	Rate of actions taken on human rights-related reports	%	100	100	100

1) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

2) Number of discrimination and harassment-related reports: 2 (2022), 1 (2023), 1 (2024)

Talent Management

Talent Management Governance

Talent Management Decision-Making Body

To foster a sustainable organizational culture, HD Hyundai Electric appointed Soon-ok Jeon, Executive Director of the Jeon Tae-il Foundation and a labor and social affairs expert, as the chair of the ESG Committee in 2023. The ESG Committee reviews, deliberates, and approves labor-related issues including employment, workforce diversity, labor relations, talent acquisition, and retention.

In 2024, the Committee reviewed the findings and action plans from the human rights impact assessment, and continues to systematically identify company-wide human rights risks related to labor and supply chains.

Collective Bargaining and Labor-Management Council

HD Hyundai Electric guarantees fundamental labor rights, including the rights to collective bargaining and industrial action, in pursuit of cooperative labor-management relations. Management demonstrates strong commitment and consistent engagement, while the labor union participates with a sense of community and initiative, supported by employees' strong affiliation and active support for sound labor relations.

The company holds annual collective bargaining sessions (covering wage and labor agreement renewals) and quarterly labor-management council meetings (on institutional improvements and employee welfare). Topics such as pay and working conditions are discussed and resolved collaboratively.

Meeting outcomes are transparently shared with employees through the company intranet, and 100% of agreements reached in collective bargaining and labor-management councils are implemented, reinforcing open dialogue and mutual benefit.

Collective Bargaining and Labor-Management Council Schedule

Category	2024	2025 (Planned)
Collective Bargaining	May (kick-off) – December (Agreement reached)	May (kick-off) – by year-end (Agreement reached)
Labor-Management Council	March, June, September, December	March, June, September, December

Inclusive Organizational Culture and HR Policy

HD Hyundai Electric is committed to fostering a fair and inclusive workplace through transparent and equitable HR practices. Throughout all stages of talent management—from recruitment, assignment, training, and performance evaluation to retirement—the company strictly prohibits discrimination based on gender, age, race, ethnicity, religion, or educational background, operating on the principle of diversity, equity, and inclusion. These principles are reflected in the company's anti-discrimination and anti-harassment policy, and are implemented through established rules and systems compliant with labor laws. In case of discrimination or harassment, the company operates a reporting system and enforces a zero-tolerance policy, conducting thorough investigations and disciplinary measures. All employees receive annual training to raise awareness and promote a healthy organizational culture.

Anti-Discrimination and Anti-Harassment Policy

HD Hyundai Electric has implemented policies to prevent workplace bullying, sexual harassment, and discrimination, ensuring that all employees can work in a safe and fair environment. These policies are also encouraged for subsidiaries, joint ventures, suppliers, and contractors, in accordance with Korea's Equal Employment Opportunity Act, the Labor Standards Act, and the Occupational Safety and Health Act.

Prohibition of Bullying

The company strictly prohibits all forms of bullying that cause physical or psychological harm or deteriorate the working environment by exploiting authority or interpersonal relationships.

Prohibition of Sexual Harassment

Any sexually offensive behavior during work that causes humiliation or discomfort to other employees is banned. This includes verbal, behavioral, and visual expressions.

Prohibition of Discrimination

Discrimination based on gender, race, ethnicity, nationality, religion, disability, age, political opinion, or place of origin is strictly prohibited. All employees must be treated equally and fairly.

Confidentiality

Information obtained during investigations of bullying, harassment, or discrimination must not be disclosed against the wishes of victims or reporters. Participants in the investigation are protected from retaliation.

Training and Prevention

The company provides mandatory training to all employees to prevent recurrence of workplace bullying, sexual harassment, or discrimination.

Response Measures

In order to foster a culture of mutual respect and dignity, HD Hyundai Electric takes strict corrective actions in response to any form of misconduct. Disciplinary measures are implemented according to the severity of the case.

HD Hyundai Electric remains committed to fostering a workplace culture built on mutual respect, fairness, and inclusion.

Talent Management

Organizational Culture Improvement Program

HD Hyundai Electric carries out a variety of organizational culture enhancement initiatives to support employees' smooth adjustment and early contribution to the organization. These include establishing the company's unique "Way of Working," operating the CA (Change Agent) program, planning and managing the Organizational Culture Improvement Committee and employee participation programs, and holding a "ABC DAY"(a day without managers). Through these efforts, the company aims to create a solid foundation for long-term employee retention and promote company-wide communication, enabling a more fulfilling and satisfying work place experience

Key Organizational Culture Initiatives

Way of Working	Change Agent
Development of Ways of Working - Developed the HD Hyundai Electric-exclusive "Way of Working" based on the group's core values - Conducted leadership workshops for management - Held department-level briefing sessions and developed team ground rules - Promoted best practice cases for behavioral guidelines	Operation of the CA (Change Agent) Program - Appointed opinion leaders within the organization to lead monthly M&Ms (Meet and Meals) sessions - Planned and executed CA-led customized activities (Programs such as family visit to transformer plant in 2024) - Conducted diagnostics and improvement activities on organizational meeting culture
Employee Participation Programs	Organizational Culture Improvement Committee
Executive Meeting Observations - Enabled general employees to attend executive meetings to gain insight into decision-making processes Reverse Mentoring - Facilitated generational communication through mentoring sessions between junior staff and executives/team leaders HD Hyundai Electric Day - Awards ceremony held to celebrate and share the year's achievements - Various special recognition programs operated in addition to regular awards - Employee Participation programs and facilities were included as part of the award events	Hosting of Organizational Culture Innovation Forum and Committee - Providing a platform to share performance and direction of organizational culture improvement activities - Holding discussions and workshops to enhance understanding and develop competencies related to cultural initiatives
	Delegation Culture
	ABC DAY - Promoted a culture of delegation through the operation of "ABC Day" offering managers a refresh opportunity while empowering team members



Meeting Culture Improvement

Way of Working

Employee Satisfaction Survey

HD Hyundai Electric is committed to building a healthy organizational culture that allows employees to realize their potential and demonstrate creativity. To this end, the company conducts an annual employee satisfaction survey. Key focus areas include employee engagement, embedding of corporate values, and change management efforts.

The survey measures various indicators such as job satisfaction, sense of purpose, quality of job experience, workplace well-being, and stress factors. The results are analyzed regularly and used as foundational data to enhance employee engagement and productivity.

Employee Engagement Survey Results

Category	Unit	Performance				Target
		2021	2022	2023	2024	2024
Engagement or Satisfaction	%	-	-	65.7	72.3	72.3

Talent Management

Talent Development

HD Hyundai Electric regards human resource advancement as a core strategy for business success and maintaining market competitiveness. To attract and nurture top talent, the company has established a structured talent development strategy. Tailored training programs are developed according to position level, job function, and role. All employees, including non-regular workers, are provided with equal access to educational opportunities.

Learning and Development Framework

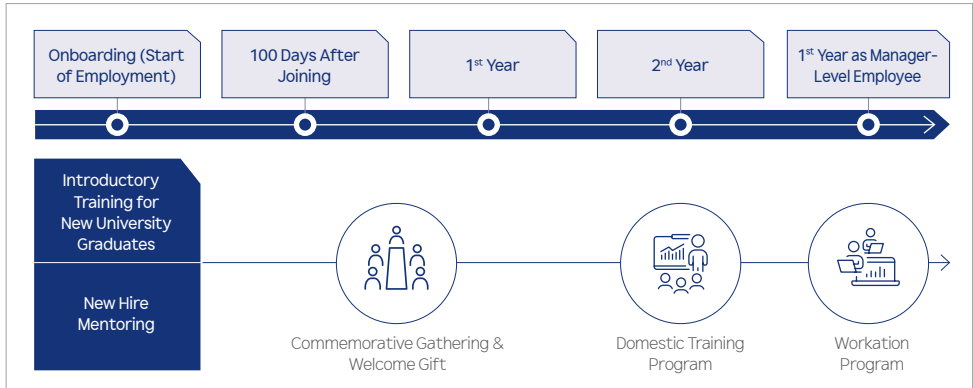
Category		Role Awareness	Leadership development			Core values			Common job training (group-wide)	In-house training											
			Back-up/Core talent		Leadership	Innovation	Challenge	Respect													
Executives	Executive Vice President and above		Transition coaching		CEO course	Leadership 360 assessment and debriefing	Executive/Head of Department special lectures	Strategic decision-making	Business simulation	Performance-driven communication	Building a culture of challenge and learning	Communicative leadership for employee engagement	Coaching and feedback for growth								
	Vice President	New executive training	HLC V																		
Super-visors	Head of Department/Team Leader	New head of department/team leader training	HLC IV	Self-directed study abroad	Project-based study abroad	Domestic MBA	HD EDOE	Leader's M.A.P.	HD Wave (leader)	The challenging journey of a smart leader		Leader's toolbox for performance	Leader's toolbox for performance								
	Section leader	New section leader training	HLC III																		
Em-ploy-ees	Senior Manager		HLC II	Self-directed overseas study abroad	Junior board (HLC I)		HD/Vision Academy	Problem solvers driving innovation	HD Wave	Secrets to achieving goals like a top performer	Negotiation/coordination skills	Respectful communication	Vision setting for growth	Global academy	Job academy	Electrical and electronics competency development	AI academy	Industry-specific job skill training	Organization-specific workshop (activation training)	Position- and role-based training by subsidiary (core competency, promotion, leadership, etc.)	Statutory mandatory training (gender equality, security, safety, retirement preparation, etc.)
	Manager	Introductory training for experienced employees																			
	Associate Manager	2nd-year domestic training																			
	New hire	Company-specific onboarding	Group onboarding																		
Existing courses		Strategic reinforcement (existing courses)				New courses															

Employee Onboarding Program

HD Hyundai Electric operates a structured onboarding program to help new hires adapt smoothly to the organization and contribute early on. At the beginning of their employment, newcomers receive introductory training and mentoring designed to foster an understanding of the company culture and develop business-oriented thinking skills. The company also hosts commemorative gatherings at the 100-day and one-year milestones to strengthen employee bonds and encourage growth.

In their second year, employees are offered domestic training programs to support retention, and first-year managers are provided with a workation program that combines work and rest, enhancing overall work efficiency.

Employee Onboarding Roadmap



Degree Programs

HD Hyundai Electric provides sponsored degree programs for full-time employees to strengthen competencies across all levels, including executive AMP¹⁾ programs, HD Hyundai Meister College, and self-directed overseas study programs.

Group	Executives	Office Technical Staff	Production Technical Staff
Educational Outcomes	2 Energy CEO Program at Seoul National University and KEPCO	1 Ulsan University CEO Course 1 Ulsan University MBA program 3 students studying abroad while working 1 A-MBA program at Yonsei University	1 HD Hyundai Meister College Bachelor of Science program

1) AMP: Advanced Management Program

Talent Management

Leadership Development Programs

HD Hyundai Electric provides structured leadership development programs such as the HLC (HD Hyundai Group Leader Course) and HTLC (HD Hyundai Group Technical Leader Course) to help employees grow as experts in their respective fields. The HLC consists of five stages and offers tailored education based on the employee’s rank and role. It aims to build essential competencies and a managerial mindset. Each stage includes a 10-day intensive training (12 days for Stage 5) and focuses on practical learning such as action learning activities that address business-specific challenges.

Technical Leadership Development Program

Category	HLC(HD Hyundai group Leader Course)				
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Number of completions (persons)	8	6	5	7	2
Completion rate (%)	100%	100%	100%	100%	100%

Training Program Effectiveness

HD Hyundai Electric provides industrial machinery operation training to enhance employees’ technical skills and promote a zero-accident workplace. The program includes both theoretical content—such as operating procedures and safety precautions—and practical training with evaluations to ensure thorough understanding. The company monitors the annual qualification acquisition rate as a metric to evaluate the effectiveness of the training program.

Industrial Machinery Operation Licensing Training¹⁾

Category	Unit	2022	2023	2024
Pendant crane operation training	persons (%)	52(79)	46(92)	126(83)
Aerial work platform training	persons (%)	13(93)	8(100)	12(100)
Small construction equipment ²⁾ training	persons (%)	13(100)	17(100)	21(95)

1) The unit in parentheses indicates the acquisition rate

2) Small construction equipment includes loaders and forklifts

The training certificate can be exchanged for an official operator’s license

Retirement Planning Support

HD Hyundai Electric provides a range of programs to help employees transition smoothly into retirement. One such program is a retirement planning workshop consisting of 16 hours over two days. Of the 80 eligible participants, 77 successfully completed the course. The program helps soon-to- retire employees reflect on and prepare for post-retirement life in areas such as career, finances, health, and leisure. Through retirement planning support, the company fosters psychological stability and motivation for employees as they begin the next chapter of their lives.

Retirement Pension System

In accordance with the Employee Retirement Benefit Security Act, HD Hyundai Electric operates a retirement pension system that supports the long-term financial stability of employees who have worked for over one year. For salaried employees aged 56 and over, the company offers a Defined Contribution (DC) pension plan to help secure a reliable financial foundation after retirement. Through these systematic retirement planning supports and pension programs, HD Hyundai Electric ensures its employees can lead secure and fulfilling lives even after leaving the company.

Talent Management

Evaluation and Compensation System

Employee Evaluation and Performance Compensation

HD Hyundai Electric conducts systematic and fair performance evaluations to manage employee performance effectively. These evaluations are used in various HR decisions, such as promotions, talent development, and leadership selection, and are designed to support employee motivation and capability enhancement.

In particular, for managerial positions at the section leader level and above, evaluation results are directly linked to compensation. The company uses a Management by Objectives (MBO) system to quantitatively assess each individual's goal achievement. This performance-based system ensures rational compensation and strengthens managerial engagement and accountability. For general staff, evaluations are primarily used to support competency development and inform HR decisions. HD Hyundai Electric continues to build a stronger link between performance and rewards moving forward.

Evaluation System for Supervisors

To improve organizational culture and develop leadership, HD Hyundai Electric operates a regular leadership and competency assessment system for employees at the section leader level and above. The leadership assessment evaluates how subordinates perceive the leadership capabilities of their managers through multi-faceted feedback. It includes criteria such as leadership skills, ability to address key issues, and leadership style. Survey-based feedback is collected and used to help each leader set development goals and as foundational data for organizational culture improvement.

In even-numbered years, the company conducts competency assessments for all employees based on HD Hyundai's core values. The results inform strategic HR decisions such as promotions, leadership selection, and talent development. As of 2025, a pilot peer feedback process is being implemented during these assessments to explore its effectiveness and potential formal adoption.

Employee Welfare System

Beyond protecting employee rights, HD Hyundai Electric supports its people in leading proactive and fulfilling lives through continued self-development, personal growth, and work-life balance. A variety of educational programs are provided to enhance both job competencies and individual development. In particular, the company offers both in-house and external specialized training focused on environmentally sustainable technologies to cultivate future talent.

Work-Life Balance

Health	Leisure	Family	Other
• Health check-ups • Wellness programs (gym, counseling center, My Balance Center, hospital access) • Medical expense support • Cancer treatment support	• Employee benefit mall • HD Hyundai Family Card	• Maternity protection • On-site daycare center • Child education support	• 5-day summer vacation • Long service leave • Family event support • PC-OFF policy • Flexible work hours
Work Engagement	Partnership Discounts	Housing Support	
• Flexible work hours • Remote work, satellite offices • Hot-desking system • Workation program	• Hotel • Resorts • Hyundai Group discounts	• Dormitory • Housing loan support	

Environmental

Social

Human Rights

▶ Talent Management

Health and Safety ▶Material Issue

Supply Chain Management ▶Material Issue

Raw Materials

Product Safety and Quality ▶Material Issue

Local Community

Governance

Talent Management

Certifications and Achievements in Talent Management

HD Hyundai Electric places a strong emphasis on fostering a management culture that values communication with employees. As part of these efforts, the company has implemented interactive communication programs such as “Seokdabang”, a morning dialogue initiative, and “Reverse Mentoring” with younger generations. These activities have helped build trust with employees and promote a culture of responsible management. Notably, one of HD Hyundai Electric’s executives became the first-ever recipient of the HD Hyundai Management Leadership Award. Although awarded to an individual, the recognition reflects the company’s culture of communication and leadership in practice, serving as a positive example of people-centered management. The company has also achieved greater operational and cost efficiency through enterprise-wide innovation programs. In recognition of these efforts, HD Hyundai Electric received the Innovation Management Award from the Korean Academic Society of Business Administration. This external acknowledgment highlights the company’s ongoing commitment to innovation and management excellence, boosting employee pride and enhancing organizational competitiveness. Furthermore, HD Hyundai Electric continues to renew its Family-Friendly Company certification, first obtained in 2021, and provides institutional support to help employees maintain a healthy work-life balance.



Award Ceremony for the HD Hyundai Management Leadership Award

Family-Friendly Certification



Certification Period :
Dec 1, 2024 – Nov 30, 2026

Labor Relations¹⁾

Category		Unit	2022	2023	2024
Labor union membership rate		%	83.61	84.25	78.26
Coverage of collective bargaining agreements		%	100	100	100
Labor dispute	Number of strikes	cases	0	0	0
	Employees participated directly in strikes	persons	0	0	0
Labor-Management Council	Number of Labor-Management Council meetings held	meetings	4	4	4

1) The minimum notice period related to operational changes is determined in line with the collective agreement

Employee Overview²⁾

Category		Unit	2022	2023	2024
Total number of employees	Total number of employees	persons	2,089	2,124	2,189
	Total number of registered executives	persons	5	5	5
	Total number of general employees	persons	2,084	2,119	2,184
Total number of non-affiliated workers	Total number of non-affiliated workers	persons	834	875	972
	Total number of permanent employees	persons	2,018	2,004	2,024
Classification by employment type	Total number of permanent male employees	persons	1,893	1,874	1,886
	Total number of permanent female employees	persons	125	130	138
	Total number of temporary employees (under fixed-term contracts)	persons	66	115	160
	Total number of temporary male employees	persons	31	78	116
	Total number of temporary female employees	persons	35	37	44
	Total number of managerial positions	persons	379	396	393
Classification by job level	Number of senior managerial positions	persons	26	28	29
	Number of mid-level managerial positions	persons	79	82	81
	Number of junior managerial positions	persons	274	286	283
	Total number of non-managerial position	persons	1,707	1,725	1,793

Employee Diversity²⁾

Category		Unit	2022	2023	2024
Classification by age group	Proportion of employees	%	7.23	9.42	10.87
	Under 30	persons	151	200	238
	30–50	persons	1,063	1,028	1,043
	Over 50	persons	875	896	908

2) Data from previous reporting years have been revised due to enhancements in the company’s quantitative data calculation system

Talent Management

Employee Diversity¹⁾

Category		Unit	2022	2023	2024
Employees	Male ratio	%	92.29	92.09	91.64
	Male	persons	1,928	1,956	2,006
	Female ratio	%	7.71	7.91	8.36
	Female	persons	161	168	183
Registered executives	Male	persons	4	4	4
	Female	persons	1	1	1
Managerial positions ²⁾	Female ratio	%	2.11	2.27	2.29
	Male	persons	371	387	384
	Female	persons	8	9	9
	Female ratio	%	0	0	0
Senior managerial position	Male	persons	26	28	29
	Female	persons	0	0	0
Mid-level managerial position	Female ratio	%	2.53	1.22	2.47
	Male	persons	77	81	79
	Female	persons	2	1	2
Junior managerial position	Female ratio	%	2.19	2.8	2.47
	Male	persons	268	278	276
	Female	persons	6	8	7
Non-managerial position	Male	persons	1,555	1,567	1,620
	Female	persons	152	158	173
Revenue generating department	Female ratio	%	1.73	1.25	1.22
	Number of total managerial positions	persons	231	241	246
	Male	persons	227	238	243
	Female	persons	4	3	3
STEM ³⁾ department	Female ratio	%	7.9	8.28	9.4
	Total workers	persons	595	592	628
	Male	persons	548	543	569
	Female	persons	47	49	59

2) Definitions of managerial positions:

- Senior managerial positions: Executive directors and non-registered executives

- Mid-level managerial positions: Executive directors, heads of department, team leaders (including overseas subsidiary heads and branch managers)

- Junior managerial positions: Part leaders, section leaders, senior foremans, and assistant foremans

Employment of Social Minorities¹⁾

Category		Unit	2022	2023	2024
Minorities	Number of employees with disabilities	persons	27	28	27
	Proportion of employees with disabilities	%	1.29	1.32	1.23

Employees by Nationality

Category		Unit	2022	2023	2024
Proportion of employees with Korean nationality		%	100	100	100
Number of employees with Korean nationality		persons	2,089	2,124	2,189
Proportion of managerial positions held by Korean nationals		%	100	100	100
Number of managerial positions held by Korean nationals		persons	379	396	393

Recruitment^{4), 5)}

Category		Unit	2022	2023	2024
New hires ratio		%	4.56	4.09	4.45
Gender of new hires	Male ratio	%	77.17	89.02	87.78
	Male	persons	71	73	79
	Female ratio	%	22.83	10.98	12.22
	Female	persons	21	9	11
New hires by age group	Under 30 ratio	%	77.17	79.27	75.56
	Under 30	persons	71	65	68
	30-50 ratio	%	22.82	19.51	24.44
	30-50	persons	21	16	22
	Over 50 ratio	%	0	1.22	0
	Over 50	persons	0	1	0
Number of internal hires		persons	99	122	129
Proportion of positions filled internally		%	51.83	59.80	58.90

1) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

3) STEM(Science, Technology, Engineering, and Mathematics): includes departments such as Development, Design, R&D, and IT.

4) Recruitment data is managed by age group, gender, job level, and nationality (country of origin)

5) In 2021, a total of 31 new hires were made, and 81.98% of open positions were filled through internal recruitment

Talent Management

Hiring Cost^{1), 2)}

	Category	Unit	2022	2023	2024
Hiring Cost	Average hiring cost per person	KRW	2,925,544	4,776,575	5,005,825
	Total hiring cost	KRW	269,150,085	391,679,183	450,524,339

1) All costs incurred in the recruitment process during the respective year

2) 2021 average hiring cost per person: KRW 3,574,086 / 2021 total hiring cost: KRW 110,796,656

Turnover³⁾

	Category	Unit	2022	2023	2024
Turnover rate ⁴⁾		%	5.33	4.51	4.24
Total number of turnover		persons	110	91	85
Turnover by gender	Male ratio	%	4.99	4.31	3.99
	Male	persons	103	87	80
	Female ratio	%	0.339	0.198	0.25
	Female	persons	7	4	5
	Under 30 ratio	%	0.388	0.496	0.499
Turnover by age group	Under 30	persons	8	10	10
	30-50 ratio	%	1.405	0.991	0.399
	30-50	persons	29	20	8
	Over 50 ratio	%	3.54	3.02	3.34
	Over 50	persons	73	61	67
Turnover by job level	Senior managerial position ratio	%	0	0	0
	Senior managerial position	persons	0	0	0
	Mid-level managerial position ratio	%	0	0	0
	Mid-level managerial position	persons	0	0	0
	Junior managerial position ratio	%	0	0	0
	Junior managerial position	persons	0	0	0
	Non-managerial position ratio	%	5.33	4.51	4.24
	Non-managerial position	persons	110	91	85

Voluntary Turnover³⁾

	Category	Unit	2022	2023	2024
Voluntary turnover rate ⁵⁾		%	1.066	0.743	0.848
Total number of voluntary turnover		persons	22	15	17
Voluntary turnover by gender	Male ratio	%	0.824	0.644	0.798
	Male	persons	17	13	16
	Female ratio	%	0.242	0.099	0.05
	Female	persons	5	2	1
Voluntary turnover by age group	Under 30 ratio	%	0	0.099	0.15
	Under 30	persons	0	2	3
	30-50 ratio	%	0.436	0.446	0.25
	30-50	persons	9	9	5
	Over 50 ratio	%	0.63	0.198	0.449
	Over 50	persons	13	4	9
Voluntary turnover by job level	Senior managerial position ratio	%	0	0	0
	Senior managerial position	persons	0	0	0
	Mid-level managerial position ratio	%	0	0	0
	Mid-level managerial position	persons	0	0	0
	Junior managerial position ratio	%	0	0	0
	Junior managerial position	persons	0	0	0
	Non-managerial position ratio	%	1.066	0.743	0.848
	Non-managerial position	persons	22	15	17

3) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

4) 2021 turnover rate: 2.7%; criteria were updated in 2022 due to a refined calculation system

5) 2021 voluntary turnover rate: 1.0%; criteria were updated in 2022 due to a refined calculation system

Talent Management

Wage

Category			Unit	2022	2023	2024
All employees	Average salary per employee	Total ¹⁾	KRW million	95	110	127
		Male	KRW million	97	113	130
		Female	KRW million	64	78	92
Registered executives	Total salary (employees)	Total	KRW million	197,437	233,065	276,349
	Male	Average base pay	KRW million	199.5	209.5	225.5
		Total base pay	KRW million	798	838	902
	Female	Average base pay	KRW million	50	84	84
		Total base pay	KRW million	50	84	84
	Male	Average base pay + Performance-based bonus	KRW million	276	331.75	343.75
		Total base pay + Performance-based bonus	KRW million	1,104	1,327	1,375
	Female	Average base pay + Performance-based bonus	KRW million	50	84	84
		Total base pay + Performance-based bonus	KRW million	50	84	84
Managerial positions	Male	Average base pay	KRW million	48	49	51
		Total base pay	KRW million	17,632	18,871	19,683
	Female	Average base pay	KRW million	42	42	44
		Total base pay	KRW million	340	374	393
	Male	Average base pay + Performance-based bonus	KRW million	71	85	105
		Total base pay + Performance-based bonus	KRW million	26,300	32,837	40,192
	Female	Average base pay + Performance-based bonus	KRW million	62	70	92
		Total base pay + Performance-based bonus	KRW million	498	628	828
	Male	Average base pay	KRW million	33	34	35
		Total base pay	KRW million	50,972	53,181	56,356
Non-managerial positions	Female	Average base pay	KRW million	25	26	28
		Total base pay	KRW million	3,738	4,142	4,794
	Male	Average base pay + Performance-based bonus	KRW million	47	56	71
		Total base pay + Performance-based bonus	KRW million	72,958	88,289	115,302
	Female	Average base pay + Performance-based bonus	KRW million	34	43	55
		Total base pay + Performance-based bonus	KRW million	5,182	6,733	9,463

1) Salaries are set above the minimum wage required by law in the countries where domestic and overseas sites are located, and accurate salaries calculated based on working hours are paid regularly on the designated dates

Employee Competency Development²⁾

Category		Unit	2022	2023	2024
Average training hours per employee		hours/ persons	26.27	11.35	15.61
Total training hours		hours	54,873	24,115	34,169
Average training cost per employee		KRW million/ persons	0.172	0.232	0.190
Total training cost		KRW million	359	493	415
Percentage of employees who completed training		%	99.67	99.81	99.82
Number of employees who completed training		persons	2,082	2,120	2,185
Age group - Under 30	Training hours per person	hours/ persons	29.55	18.22	19.58
	Total training hours	hours	4,462	3,644	4,660
Age group - 30 to 50	Training hours per person	hours/ persons	34.45	13.87	20.06
	Total training hours	hours	36,624	14,261	20,927
Age group - Over 50	Training hours per person	hours/ persons	15.76	6.93	9.45
	Total training hours	hours	13,787	6,211	8,582
Gender - Male	Training hours per person	hours/ persons	25.48	11.08	15.30
	Total training hours	hours	49,121	21,664	30,698
Gender - Female	Training hours per person	hours/ persons	35.73	14.59	18.97
	Total training hours	hours	5,752	2,451	3,472
By job level - Senior managerial position ³⁾	Training hours per person	hours/ persons	39.73	12.32	16.62
	Total training hours	hours	1,033	345	482
By job level - Mid-level managerial position ³⁾	Training hours per person	hours/ persons	39.52	12.65	21.79
	Total training hours	hours	3,122	1,037	1,765
By job level - Junior managerial position ³⁾	Training hours per person	hours/ persons	24.94	9.16	16.85
	Total training hours	hours	6,834	2,620	4,767

2) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

3) Definitions of managerial positions:

- Senior managerial positions: Executive directors and non-registered executives
- Mid-level managerial positions: Executive directors, heads of department, team leaders (including overseas subsidiary heads and branch managers)
- Junior managerial positions: Part leaders, section leaders, senior foremans, and assistant foremans

Talent Management

Tenure & Long-term Incentives

Category	Unit	2022	2023	2024
Average years of service (total)	years	4.3	4.7	5.4
Average years of service (male)	years	4.4	5.1	5.5
Average years of service (female)	years	2.9	3.4	3.9
Average vesting period of long-term incentive	years	-	3.5	3.8
Percentage of employees eligible for Long-Term Incentive Plan	%	-	1.18	1.01
Number of employees eligible for Long-Term Incentive Plan	persons	-	25	22

HCROI ^{1),2)}

Category	Unit	2021	2022	2023	2024
Human Capital ROI	%	3.88	8.69	8.85	9.73
HCROI Total operating expenses	KRW million	225,390	203,264	295,200	375,595
Total personnel-related costs	KRW million	187,530	211,608	254,672	299,966

1) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

2) HCROI : Human Capital Return on Investment

Employee Benefits

Category	Unit	2022	2023	2024
Total employee benefit expenses	KRW million	11,936	17,182	16,717
Retirement benefits	KRW million	2,235	4,425	6,900

Parental Leave ³⁾

Category		Unit	2022	2023	2024
Number of employees taking parental leave	Total	persons	12	7	6
	Male	persons	10	4	4
	Female	persons	2	3	2
Maximum paid parental leave period for male		weeks	52	52	52
Maximum paid parental leave period for female		weeks	52	52	78

3) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

Health and Safety

Health and Safety Governance

To strengthen the accountability of senior management for health and safety, HD Hyundai Electric has appointed a Chief Safety Officer (CSO) and operates a dedicated team that systematically monitors the implementation of improvements for hazardous and risk factors, as well as compliance with health and safety standards. The CSO regularly chairs safety management meetings to review major issues and incident reports, while safety and health managers work to improve actual risks through compliance with legal obligations and on-site inspections.

Health and Safety Organization and Responsibilities



Occupational Safety and Health Committee

HD Hyundai Electric is committed to creating a safe and healthy working environment by actively listening to employees' feedback and reflecting their needs in improvement initiatives. Key occupational safety and health issues are discussed and resolved through the Occupational Safety and Health Committee, a joint labor-management body. The Committee convenes quarterly and addresses a wide range of agenda items including the establishment of industrial accident prevention plans, safety and health training for employees, and inspection and improvement of the work environment. The outcomes of these meetings are shared across the organization, contributing to enhanced safety awareness among all employees.

Composition	Operation Frequency
6 labor representatives, 6 management representatives	Once per quarter

Summary of Occupational Safety and Health Committee

Date of Meeting	Agenda Items
Q1 (2024.04.23)	Installation of crane in transformer shipping painting area, plus four additional items
Q2 (2024.07.15)	Provision of insoles for plantar fasciitis management, plus four additional items
Q3 (2024.10.02)	Extension of work platform to prevent fall accidents, plus five additional items
Q4 (2024.12.26)	Installation of dedicated locker for protective suits for enamel removal, plus five additional items

Compliance with Legal Requirements and Budget Management System

HD Hyundai Electric systematically executes its occupational safety and health (OSH) budget through pre-allocation and emergency reserve planning. The company ensures stable funding for OSH initiatives by conducting periodic performance reviews. In addition to fulfilling legal obligations—such as daily inspections by supervisors and the operation of the Occupational Safety and Health Committee—the company also conducts semi-annual reviews of newly issued regulations and their implementation status using a legal compliance checklist. Updates on regulatory trends are shared with all employees to proactively prevent legal risks.

Promotion of Safety Culture and Support for Partner Companies

HD Hyundai Electric is continuously promoting a range of initiatives to enhance the safety culture of both employees and partner companies. These include cooperative safety programs, safety incentive systems, awareness campaigns, and the implementation of operational safety rules. To support partner companies, the company provides safety and health supplies, consulting services, and conducts site inspections led by the Chief Safety Officer (CSO). These efforts aim to mitigate legal risks and strengthen safety culture across the supply chain. In addition, the company conducts quantitative assessments of safety culture to foster safety participation behaviors at all organizational levels. We are also enhancing its accident response capabilities through the digitalization of the safety and health management system and is in the process of restructuring its reward system to promote a self-directed safety and health culture.

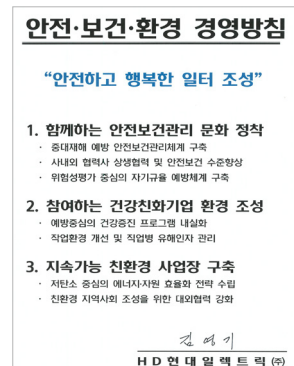
Health and Safety

Health and Safety Policy

HD Hyundai Electric has adopted the goal of “Creating a Safe and Happy Workplace” as its Health, Safety, and Environment Management, aiming to foster a participatory safety culture involving all employees and partner companies. The company strictly complies with domestic and international health and safety laws and regulations and strives to enhance the safety competence of its partner companies by improving work environments, managing hazardous occupational factors, minimizing blind spots for risks, and promoting a health-friendly workplace. We consider the provision of a safe and healthy working environment for all employees and partner companies as our top priority, and we are committed to embedding a safety-first culture throughout the entire organization. Notably, our health and safety policies, along with company-wide goals and performance plans, are reviewed and approved annually by the Board of Directors, thereby reinforcing executive-level accountability and implementation.

Posting of Health and Safety Policy and Critical Safety Rules

To express a strong commitment to safety from top management to all employees, HD Hyundai Electric has produced and installed large-scale signboards displaying the Health and Safety Management Policy. In addition, signboards for the company's Critical Safety Rules, which serve as the foundational guidelines for safe work practices, have been installed at all sites. This helps normalize basic safety rules and enhances the overall safety culture level across the company.



Health, Safety, and Environment (HSE) Management Policy



HSE Management Policy Notification / Posting



Posting of Critical Safety Rules Signboard

Occupational Health and Safety Management System (ISO 45001)

HD Hyundai Electric has obtained ISO 45001 certification, the international standard for occupational health and safety management, and maintains it through structured activities such as regular safety risk assessments, education, and training programs. The company operates a safety and health management system in line with global standards. Based on this system, company-wide health and safety goals and detailed objectives are established, and action plans are implemented to achieve them. Risk and opportunity analyses are conducted within the system framework, forming the basis for continuous improvement efforts. Post-certification maintenance and renewal audits are conducted by LRQA, a third-party verification body. Additionally, internal audits are performed annually to assess the operational status of the system and verify its compliance with ISO standards. Key evaluation and inspection items include the review of essential documentation, inspection of on-site safety management practices, execution of risk assessments, and evaluation of legal compliance. These procedures help confirm the effective operation of the occupational health and safety management system and contribute to the establishment of a sustainable safety and health infrastructure.

‘Find the Risk’ On-Site Hazard Identification Campaign

HD Hyundai Electric operates various communication channels to enhance on-site safety through employee participation and feedback. Through the QR code-based “Find the Risk” campaign and the “Right to Request Safe Work” system implemented at each site, field workers are empowered to directly report potential hazards. The company has established a system that enables prompt response and resolution of such reports. In 2024, a total of 1,798 hazard reports were submitted through the “Find the Risk” campaign. Among these, exemplary cases were selected and recognized with safety contribution awards and commendation coupons. In addition, 1,619 reports were received through the “Right to Request Safe Work” system. Every report was followed up with immediate on-site verification and corrective action, contributing directly to improvements in the working environment. Through these initiatives, HD Hyundai Electric continues to cultivate a safety culture rooted in employee-driven feedback and active participation.



ISO 45001

Worksite

Ulsan Plant 1 & 2, Seonam Plant, Anseong Plant

Validity Period

2026.03.22



“Find the Risk” On-site Hazard Identification

Health and Safety

Health and Safety Risk Management

Risk Assessment

HD Hyundai Electric conducts regular risk assessments on a monthly and quarterly basis across all sites to proactively identify and manage potential health and safety hazards. In addition, ad-hoc assessments are performed when new equipment or processes are introduced or when incidents occur. To encourage employee-driven risk identification and strengthen on-site safety, the company has implemented the QR code-based “Find the Risk” on-site hazard detection campaign and the “Right to Request Safe Work” system. These mechanisms allow employees to report hazards, which are promptly reviewed and reflected in risk assessments.

For any critical hazards identified through these assessments, the company establishes corrective action plans and follows up on their implementation. The entire risk assessment process is monitored through biannual implementation audits (conducted in the first and second halves of the year). In 2024, a total of 547 risk assessment records were submitted, and 29 high-priority improvement items were addressed and resolved with corresponding corrective actions.

Risk Assessment Process

Category	Key Activities	Frequency
Training	• Identifying hazardous factors, assessment procedures, and documentation methods	Regular (once per year)
	• Validity review of risk assessments	Regular (once per year)
Assessment	• Near-miss incidents, immediate accident reports, and changes in equipment, processes, or newly introduced hazardous substances	New / As needed
Status Management	• Updates to standard work instructions and risk assessment records	As needed
Corrective action planning & Monitoring	• Action planning for items rated 8 or higher / deemed high risk	Regular / As needed
	• Progress monitoring by supervisors	Regular / As needed

Distribution of Risk Assessment Leaflets

HD Hyundai Electric has selected the top three high-risk tasks for each major production unit. To support safe work execution, the company developed portable risk assessment leaflets containing key hazards, safe work procedures, and emergency response instructions. These leaflets are distributed to workers to improve their ability to respond effectively to high-risk situations in real time.



Risk Assessment Leaflet

Risk Assessment – Major Corrective Actions

Division	Risk Factor	Corrective Measures	Risk Score (Before → After)
Power Business Division	Risk of body entrapment during transformer intaking operations	Improved work method using laser level and jig to prevent body exposure beneath hoisted components during intaking operations	12 → 4
Distribution Business Division	Risk of slipping and entrapment during assembly of marine equipment (VCB: Vacuum Circuit Breaker)	Fabrication of a dedicated jig for VCB insertion	10 → 4
Rotating Machinery Division	Risk of falls or falling objects during work and movement on vertical motor frame top	- Installation of anchoring devices for safety belts - Mandatory use of safety belts for elevated work - Tool storage in toolbox after use - Continuous design improvement for non-standard parts - Regular training on standard work procedures	8 → 4
Quality Control Department	Risk of entrapment in jig during restraint testing	Replacement of jig material (from steel to aluminum) for weight reduction and reduction in jig types	6 → 3
Others	Risk of falling or entrapment while using aerial work platforms	Perform work only after reviewing aerial lift parking position (confirm level surface and need for stabilization/fixing)	3 → 2

Risk Assessment Competition

In 2024, HD Hyundai Electric held a Risk Assessment Competition to promote awareness and understanding of risk assessments, as well as to highlight exemplary safety improvement cases. Each department presented the results of their improvement initiatives for their top three high-risk tasks. The results were evaluated based on the effectiveness of their improvements and the progress achieved. As a result, six outstanding departments and four employees were recognized and awarded. This initiative contributed to fostering a culture of voluntary improvement in high-risk task management across the organization.



Risk Assessment Competition

Health and Safety

Partner Company Health and Safety

Recognition for Excellence in Win-Win Partnership Programs

HD Hyundai Electric supports both in-house and external partner companies, as well as local SMEs, through initiatives such as sharing risk assessment methodologies, conducting safety inspections, and offering training programs to improve safety awareness and build competency. As a result of these efforts to create a safe and healthy work environment in cooperation with partner companies, the company was selected in 2023 for Excellence in the Health and Safety Win-Win Partnership Program, hosted by the Ministry of Employment and Labor.



Win-Win Partnership Excellence Site Award Ceremony



Win-Win Partnership Campaign

On-site Support for External Construction Projects and Partner Companies

To raise the safety standards at external installation sites and among partner companies, HD Hyundai Electric operates a customized Health and Safety management system tailored to each site's conditions. The Chief Safety Officer (CSO) visits key sites four times per half-year, checking mandatory health and safety documentation while also offering guidance and improvement measures based on on-site observations. In 2024, the company conducted eight site inspections in major locations including Gunsan, Pohang, and Gwangyang, focusing on the preemptive identification and control of health and safety risks in external construction sites and with critical partner companies.

Health and Safety Training for Partner Companies

In response to the expanded applicability of the Serious Accidents Punishment Act, HD Hyundai Electric conducted training sessions in March and October 2024 for a total of 74 external partner companies. The sessions were designed to strengthen their legal compliance capabilities and covered key topics such as the establishment of safety and health management systems, hands-on training on noise hazards, electric shock prevention, and CPR.

Health and Safety Performance Assessment of Partner Companies

When selecting partner companies, HD Hyundai Electric conducts a prequalification assessment of health and safety capabilities. Additionally, a semi-annual evaluation is performed to measure ongoing safety performance, with top-performing partners recognized and rewarded to encourage active engagement. Each month, the company conducts accident prevention evaluations to evaluate the effectiveness of safety management practices. For high-risk partners, necessary improvements are identified, and action plans are requested. These are tracked and followed up with continued support to ensure execution and raise performance levels. To further foster safety awareness, monthly safety roundtables are held with safety managers from partner companies. In addition, a Safety and Health Council and joint inspections are conducted monthly and quarterly, respectively, to assess partner companies' health and safety management systems and ensure continuous improvement.



On-site Health and Safety Support for Partner Companies



External Partner Company Health and Safety Training

Overview of Partner Company Health and Safety Assessments

Category	Health and Safety Competency Evaluation	Monthly Accident Prevention Review
Assessment target	In-house and external partner companies	In-house and external partner companies
Assessment method	On-site visits to evaluate the health and safety management competency of partner companies	Quantitative evaluation of monthly safety activities of partner companies
Assessment items	• Performance of health and safety activities and training • Certification and implementation of safety management systems • Appointment of safety managers and establishment of operational systems • Risk assessment of hazardous factors • Reports on musculoskeletal disorders, workplace environment monitoring, etc. • Safety budget planning and execution status	• Records of safety incidents and rule violations • Status of "Find the Risk" reporting • Safety management and improvement activities • Toolbox Meeting (TBM) evaluations • Execution of health and safety training • Additional scoring items such as spot rewards (commendation coupons)
Assessment frequency	Once every six months	Monthly
Utilization of results	• Recognition and awards for top-performing partner companies in health and safety evaluations • For companies scoring below 60 points, supplier selection may be reconsidered or other second-ranked company will be reviewed as an alternative	• Partner companies scoring below 85 points must submit improvement action plans

Health and Safety

Health and Safety Management Activities

Accident Cause Analysis and Accident Prevention

HD Hyundai Electric follows a standardized incident investigation procedure that applies across all sites, enabling prompt and systematic responses in the event of an accident. When an incident occurs, the site supervisor immediately reports the situation to the S.H.E Management Department, initiates root cause analysis and corrective action, and prepares an official incident report. All follow-up actions are implemented in accordance with internal regulations. For serious incidents, the company conducts Root Cause Analysis (RCA) to identify underlying causes beyond the surface-level symptoms. Based on these findings, practical countermeasures are developed and shared company-wide to prevent recurrence.

Emergency Response Drills and Accident Prevention

To effectively respond to emergencies and disasters, HD Hyundai Electric develops detailed response scenarios in advance and conducts practical drills at least twice a year. Identified weaknesses during drills are immediately reflected in the scenarios to enhance the completeness and execution quality of emergency response plans. In 2024, a total of 10 emergency response and fire drills were conducted at key production sites—including rotating machinery, high-voltage circuit breaker, transformer units, and the Seonam plant. These efforts have strengthened the company's real-time emergency response capabilities and reduced potential damage. Additionally, special safety inspections are carried out monthly for high-risk activities such as crane operations, forklift use, and work at heights. These inspections aim to proactively identify and eliminate hazards on-site, achieving tangible results in accident prevention.



Emergency Preparedness Inspections at Key Sites



Special Safety Inspections

Health and Safety Training Programs

HD Hyundai Electric provides comprehensive health and safety training to enhance employees' knowledge and awareness. The company provides legally mandated safety training, including regular training, onboarding training for new hires, training upon changes in work tasks, and special safety training. In addition, internal safety programs are conducted, such as risk assessment training, training for employees returning from industrial accidents, and equipment operation training. In addition, the company provides job-specific occupational safety and health training for safety and health management personnel, including training programs for persons responsible for safety and health as well as for appointed safety and health officers.

Safety Training

Category	Training Programs	2024 Performance
Legal Training	- Safety and health Training for new hires and employees with job changes - PSM (Process Safety Management) training - Regular safety and health training - Supervisor training - Special safety training - Training for a person in charge of safety and health management / appointed managers	- Participants: 2,581 - Completion rate: 100%
Internal Training	- Return-to-work training for injured employees - SHE coordinator safety and health training - Environmental equipment operator training - Certified equipment operator training	- Participants: 1,457 - Completion rate: 100%

Workplace Environment Monitoring

HD Hyundai Electric conducts workplace environment monitoring twice a year to ensure a pleasant and safe working environment and implements corrective measures for any processes that exceed exposure limits. The monitoring results are reported to the relevant departments, and when exposure levels surpass the permissible standards, immediate improvement actions are planned and carried out. In 2024, the company completed hazardous factor measurements for 446 cases in the first half and 365 cases in the second half of the year. For processes where exposure exceeded permissible limits, improvement measures were implemented accordingly.

Health and Safety

Promoting a Voluntary Safety Culture

Safety Culture Assessment

In 2024, HD Hyundai Electric introduced a safety culture assessment to encourage safety participation across all organizational levels through quantitative diagnostics, thereby contributing to accident prevention. The assessment also supports the development of strategic short- and long-term safety culture improvement roadmaps by element and department. An online survey was conducted targeting all employees and internal partner companies, covering 12 areas including leadership, safety awareness, communication, and training. The average safety culture score was 76.63 out of 100, reflecting a high overall safety culture level. Each department identified its three lowest-scoring areas and formulated internal improvement tasks accordingly. These efforts are continuously monitored to standardize safety culture across departments and evaluation domains, ultimately contributing to the prevention of workplace accidents.

Safety Incentive System

To raise safety awareness and encourage voluntary participation in safety activities, HD Hyundai Electric operates a variety of safety incentive programs. Awards are granted at the team or partner company level based on achievements such as zero-accident milestones and outstanding safety initiatives. Individual recognition, such as the Safety Contribution Award, is also given to acknowledge exemplary efforts. In addition, on-the-spot incentives such as commendation coupons are awarded to individuals who diligently follow safety rules or contribute to the elimination of hazards, establishing a real-time, field-based motivation system. In 2024, the company presented a total of 2,023 safety awards to outstanding teams and partner companies that contributed to accident prevention and safety culture improvement, individuals with notable performance in preventing serious accidents, and winners of the Risk Assessment Competition, helping embed a proactive and prevention-centered safety management system.



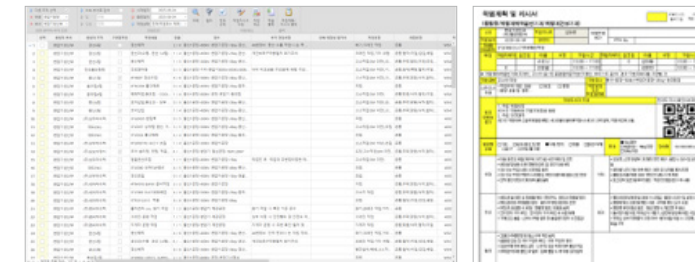
Outstanding Safety Team



Risk Assessment Competition Awards

Health and Safety Digital System Development

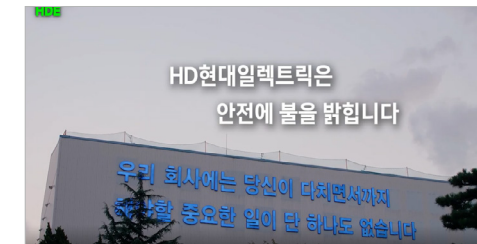
To ensure compliance with health and safety regulations and to enable proactive incident response, HD Hyundai Electric has developed a digital H&S management system. In 2024, work plans and instructions were digitalized to prevent omissions of legally required documents and to allow workers to immediately check daily tasks and potential hazards via mobile devices. In 2025, the system will be expanded to include the digital management of safety incentives and risk assessments. This will strengthen the performance-based safety reward system and contribute to the establishment of a self-directed health and safety management framework. Additionally, risk assessment reports will be made accessible via web and mobile platforms, encouraging safe work practices based on risk assessments and enabling data-driven safety activities.



Digital Interface for Work Plans and Instructions

Safety Short-Form Videos

To improve safety awareness and provide effective training content, HD Hyundai Electric produced a total of nine safety-themed short-form videos in 2024, including safety pledges, eye protection campaigns, and videos highlighting the completion of the Transformer core factory. The company has also uploaded job introduction videos for safety-related roles to YouTube, further contributing to safety training and raising the overall safety culture standard.



Safety Culture Awareness Short-Form Videos



Safety Culture Awareness Short-Form Videos

Health and Safety

Employee Health Management

Employee Health Screening Programs

HD Hyundai Electric operates multi-tiered health screening programs to systematically manage employee health and enable early detection of diseases. All employees undergo regular general health checkups, while employees exposed to hazardous factors—such as organic solvents, dust, and noise—also receive specialized medical examinations to identify occupational health risks in advance. Furthermore, the company supports long-serving employees by offering them the option of comprehensive health examinations and advanced diagnostic checkups, thereby facilitating more detailed health assessments. In 2024, a total of 2,721 individuals, including those from internal partner companies, received health checkups. Those identified as requiring observation or follow-up care were provided with targeted post-screening management to address potential health concerns promptly. HD Hyundai Electric continues to strengthen its preventive, employee-centered health management system, recognizing employee well-being as a core corporate value.

Health Promotion Programs

HD Hyundai Electric provides employees with reliable health information and promotes healthy lifestyle habits through various health promotion initiatives, including stress management, lifestyle improvement, and prevention of cardiovascular diseases.

2024 Health Promotion Programs and Campaigns

Category	Key Activities
Mind Relief Bus	• EEG (Electroencephalogram)-based physical and mental stress testing
Workplace Mental Wellness Lounge	• One-on-one psychological counseling for stress and personal concerns
HomeFit	• Group stretching and yoga classes for refreshment and relaxation
Smoking Cessation Clinic	• Continuous management program to support smoking cessation
Walk-Ons	• Virtual walking and “plogging” activities to improve fitness and lifestyle
Health Experience Zone	• Health education and personalized consultation through interactive booths

Health and Safety Metrics and Targets

HD Hyundai Electric aims to manage performance effectively by setting clear safety management policies and measurable objectives.

Health and Safety Mid- to Long-Term Targets

Short to Mid-Term (2025–2027)	Long-Term (by 2030)
• Achieve an injury rate below 0.100 • Achieve customized incident frequency rate below 0.211 • Attain a Corporate Health Promotion Index score of 90 or higher • Maintain certification as a health-friendly company	• Maintain three or fewer accident-related injuries annually by 2030

Health and Safety Investment

In 2024, HD Hyundai Electric made targeted investments to prevent safety incidents caused by aging equipment. These included the replacement of forklifts, chain blocks, and electric carts. To improve the working environment, the company installed new air conditioning units, upgraded old infrastructure, and introduced ride-on cleaning machines, disinfection robots, and replaced outdated dust collectors. Additional investments were made based on deliberations by the Occupational Safety and Health Committee, including the installation of fall prevention jigs for coil assembly platforms, emergency lighting, and the dismantling of corroded structures at the Seonam plant. Through these efforts, the company is committed to continued investment in Health and Safety to create a safe and fulfilling workplace.

Health and Safety

Occupational Health and Safety¹⁾

Category			Unit	2022	2023	2024
Industrial Accident Rate	Employees	Industrial accident rate	%	0.145	0.096	0.046
		No. of injured employees	persons	3	2	1
	Partner company	Industrial accident rate	%	0.135	0	0
		No. of injured partner company workers	persons	1	0	0
Safety Incident	Frequency rate		cases per 1 million work hours	0.659	0.409	0.222
	No. of serious accident	Employees	cases	0	0	0
		Partner company	cases	0	0	0
	No. of industrial accidents	Employees	cases	3	2	1
		Partner company	cases	1	0	0
Working Hours	Employees	Total hours worked	hours	4,551,770	4,885,886	4,510,119
		Average number of workers	persons	2,076	2,092	2,156
	Partner company	Total hours worked	hours	1,667,541	1,834,188	1,934,497
		Average number of workers	persons	741	817	918
Work-related Fatalities ²⁾	Employees	Fatality rate	cases per 200,000 work hours	0	0	0
		No. of fatalities	persons	0	0	0
		No. of fatal accidents	cases	0	0	0
	Partner company	Fatality rate	cases per 200,000 work hours	0	0	0
		No. of fatalities	persons	0	0	0
		No. of fatal accidents	cases	0	0	0
Lost Time Injuries ³⁾	Employees	Lost Time Injury Frequency Rate (LTIFR)	cases per 1 million work hours	1.98	1.43	1.552
		Lost-Time Injuries (LTI)	cases	9	7	7
	Partner company	Lost Time Injury Frequency Rate (LTIFR)	cases per 1 million work hours	0.6	1.09	2.585
		Lost Time Injuries (LTI)	cases	1	2	5

1) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

2) Number of work-related fatalities in 2021: 0 for employees, 0 for partner companies

3) 2021 employee LTIFR: 8.913, employee LTI: 14; partner company LTIFR: 0, partner company LTI: 0

Category			Unit	2022	2023	2024
Recordable Injuries	Employees	Total Recordable Injury Frequency Rate (TRIFR)	cases per 1 million work hours	2.197	2.047	2.439
		Recordable Injuries (RI)	cases	10	10	11
	Partner company	Total Recordable Injury Frequency Rate (TRIFR)	cases per 1 million work hours	0.6	1.09	2.585
		Recordable Injuries (RI)	cases	1	2	5
Occupational Illness	Occupational Illness Frequency Rate (OIFR)_Employees		cases per 200,000 work hours	0.088	0.164	0.089
	Occupational Injuries (OI)_Employees		cases	2	4	2

Health and Safety Management System (ISO 45001)

	Unit	2022	2023	2024
Certification acquisition rate for Health and Safety Management System	%	100	100	100
Number of target sites for certification acquisition ⁴⁾	sites	4	4	4
Number of certified sites	sites	4	4	4

4) Major domestic production sites

Supply Chain Management

Supply Chain Management Governance

HD Hyundai Electric has established and is operating supply chain management governance to strategically manage ESG risks within its supply chain. Led by the ESG Management Team, related departments such as the Purchasing Department, Project & Production Planning Department, Legal Team, and S.H.E Management Department work in close collaboration. Supply chain-related plans, performance, and major issues are regularly reported to the ESG Committee under the Board of Directors. To strengthen the ESG capabilities of partner companies and promote shared growth, HD Hyundai Electric regularly operates a Partner Company Council. Through this council, the company actively communicates with partner companies on key issues across the supply chain, including workplace health and safety and quality improvement. By establishing an ESG governance-based supply chain management system and a practical communication structure for partnership enhancement, HD Hyundai Electric is realizing sustainable supply chain operations.

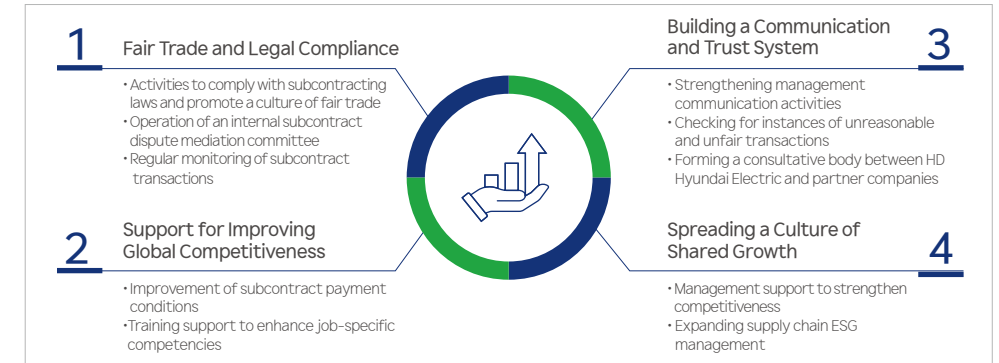
Supply Chain Management Organizational Chart



Supply Chain Management Policy

HD Hyundai Electric has established four key Shared Growth Strategies to promote shared growth through mutual respect and engagement among all stakeholders and partner companies. Based on these strategies, the company has created a sustainable supply chain ecosystem and demonstrated its corporate responsibility to the broader community by establishing and disclosing its Partner Company Code of Conduct and Supply Chain ESG Management Policy on its website. This policy applies to all partners that maintain business and cooperative relationships with HD Hyundai Electric, including partner companies, contractors, and joint ventures.

Four Key Shared Growth strategies



Partner Company Code of Conduct

HD Hyundai Electric has established the Partner Company Code of Conduct which outlines requirements related to human rights and labor, safety and health, environmental protection, ethical business practices and fair trade, and conflict minerals that partner companies must adhere to. This Code is designed to encourage voluntary social responsibility across the supply chain. The Code is based on global standards including the Responsible Business Alliance (RBA) Code of Conduct, the UN Universal Declaration of Human Rights, the UN Convention on the Rights of the Child, and core conventions of the International Labour Organization (ILO), all of which aim to enhance supply chain sustainability. Each year, partner companies are required to sign a pledge to fulfill their social responsibilities. Furthermore, HD Hyundai Electric conducts evaluations and on-site audits to verify compliance with ESG management policy requirements. When potential risks are identified, partner companies are required to establish and implement risk mitigation plans, and HD Hyundai Electric monitors their execution. In cases where a violation of the Code of Conduct is identified, the company may suspend or terminate the business relationship with the partner company. In addition, if the violation results in damages, the partner company shall be held liable in accordance with the standard purchasing agreement.

Supply Chain Management

System Operation to Improve Procurement Efficiency

HD Hyundai Electric operates an integrated procurement information system (G-HIPRO) to build a trust-based partnership with its partner companies. Through this system, prospective suppliers can freely apply for partnership, and partner companies are registered based on fair and transparent standards. Registered partner companies go through an electronic bidding process that includes quotation submission, technical review, and final selection of the supplier, ensuring fairness throughout all procedures.

In addition, through the material procurement system, partner companies are required to submit a Conflict of Interest Declaration and a Code of Ethics Pledge. Based on this documentation, HD Hyundai Electric evaluates partner companies annually and supports their efforts to strengthen competitiveness. This process plays a key role in minimizing material procurement risks and maintaining a stable and efficient procurement system.

Supply Chain Risk Management and Pricing System for Raw Materials

HD Hyundai Electric continuously strengthens its monitoring of key raw material market trends to preemptively manage risks related to materials essential for the production of core products such as power transformers and rotating machinery. In particular, for volatile commodities such as copper (Cu) and silver (Ag), the company closely analyzes international prices and exchange rates to flexibly set the baseline transaction price for materials.

By implementing this market-linked pricing process, the company periodically reflects market conditions in the unit prices paid to partner companies. This enables HD Hyundai Electric to effectively respond to supply chain volatility while maintaining stable material supply and supply chain management, ultimately ensuring a sustainable production environment.

Support for Partner Companies

Facility Investment Funding for Partner Companies

Since 2023, HD Hyundai Electric has operated Facility Investment Funding Program as a practical measure to enhance the production capabilities of both in-house and external partner companies and to strengthen the stability of the supply chain. The program provides interest-free loans for facility

investments aimed at improving productivity, quality, and working conditions, thereby alleviating financial burdens and supporting the sustainable growth of partner companies. In 2024, five partner companies were selected through an internal review process, and approximately KRW 2.7 billion in funding was provided. Each selected company can receive an interest-free loan of up to KRW 700 million, covering up to 70% of their total investment, for a period of three years. To further reduce financial pressure, HD Hyundai Electric covers the full cost of credit guarantee insurance required for the loans. This program is part of the company's shared growth strategy, designed to address the challenges faced by small and medium-sized manufacturers, such as outdated facilities and labor shortages, and to enhance the long-term competitiveness of the overall supply chain.

Financial Support Program for Partner Companies

HD Hyundai Electric provides practical support to enhance partner companies' access to production resources and ease their financial burden. For consigned materials supplied free of charge by the company, the company fully covers the credit guarantee insurance fees for a group of top-performing partner companies (a group of top-performing partner companies, the "Partner Company Council"), thereby reducing their financial costs and enabling stable business operations. In 2024, the company signed five free lease agreements for molding and casting equipment, covering the full lease cost of the equipment. These resource support programs have made a tangible contribution to improving the production efficiency and quality competitiveness of partner companies, while also strengthening the overall competitiveness of its supply chain.

Shared Growth Fund

HD Hyundai Electric has established and operates a shared growth fund totaling KRW 30 billion to support partner companies in improving access to financing and securing financial stability. This fund is a financial support program that enables partner companies to obtain business loans at preferential interest rates compared to market interest rate. It helps them secure liquidity to meet real business needs such as working capital and facility investments. Through this financial support infrastructure, HD Hyundai Electric contributes to the stable growth of partner companies and strengthens the overall competitiveness of its supply chain. The company plans to continue expanding practical support measures to promote mutually beneficial growth.

Supply Chain Management

Support for Partner Companies' Environmental Management

HD Hyundai Electric supports partner companies in enhancing their environmental disclosure capabilities. In particular, we facilitated the participation of our partner companies in a pilot program led by the Korea Environmental Industry & Technology Institute, which promotes voluntary environmental disclosure by small and medium-sized enterprises. In 2024, we directly provided consulting fees to partner companies to encourage participation in this program, thereby strengthening their ESG capabilities and contributing to the establishment of a sustainable supply chain.

Partner Company Council and Awards for Outstanding Partner Companies

HD Hyundai Electric operates a Partner Company Council consisting of 49 partner companies with a high level of business dependency, to facilitate communication and strengthen partnerships. The council is held regularly to share the company's business direction and vision, while also listening to the concerns of partner company members. In particular, an annual New Year's meeting is held to discuss management updates and shared growth strategies. As part of this initiative, the company conducts the Outstanding Partner Company Awards each year to recognize partners who have delivered exceptional performance and contributed to mutual growth. Based on performance in 2024, the awards were presented during the New Year's meeting in January 2025. Two top-performing partner companies each received KRW 5 million, and four outstanding partner companies each received KRW 3 million, along with a commemorative plaque as a token of appreciation. This award system not only boosts motivation among partner companies but also contributes to fostering a healthy partnership culture. Additionally, HD Hyundai Electric awarded a total of 510 reward coupons to partner company employees who demonstrated outstanding safety practices, thereby encouraging stronger voluntary health and safety management among partners.



2024 Outstanding Partner Company Awards

Partner Company Idea Contest

HD Hyundai Electric hosts an Idea Contest for Partner Company Support Program, welcoming submissions from both in-house and external partner companies. Outstanding ideas are selected and awarded accordingly. In 2024, the winning idea proposed creating an "Online Recruitment Platform" to support partner companies struggling with hiring, by establishing a digital recruitment process on a job-matching platform. Based on the belief that "The competitiveness of our partner companies is the competitiveness of our company," HD Hyundai Electric continues to foster and reward creative ideas that contribute to the practical growth of its partners.

'Together Cafe': A Window of Communication

HD Hyundai Electric has expanded its internal communication program 'Seok-Dabang' to include its partner companies through the 'Together Cafe' initiative. As part of this program, CEO Seok Cho and employees of HD Hyundai Electric visit partner companies to share coffee and snacks, express gratitude for their hard work, and listen directly to on-site challenges and feedback.

In 2024, visits were made to partner companies producing low and medium voltage circuit breakers and transformers. During these visits, snacks were delivered and in-depth conversations were held to identify areas for improvement.

2024 Together Cafe Activities

Visit Date	Partner Company	Product Type	Location	Activity Description
2024. 02.27	Changseong Precision	Low and medium voltage circuit breakers	Busan, Gijang	Coffee truck service and message of gratitude
2024. 03.12	Sinhyeon Electric	Low and medium voltage circuit breakers	Gyeonggi, Gunpo	Snack delivery and on-site communication
2024. 10.04	Kukje Metal	Trans-formers	Busan, Gangseo	Snack delivery and feedback collection



Partner Company Support Program Idea Contest



Together Cafe

- Environmental
- Social
- Human Rights
- Talent Management
- Health and Safety ▶Material Issue
- ▶ Supply Chain Management ▶Material Issue
- Raw Materials
- Product Safety and Quality ▶Material Issue
- Local Community
- Governance

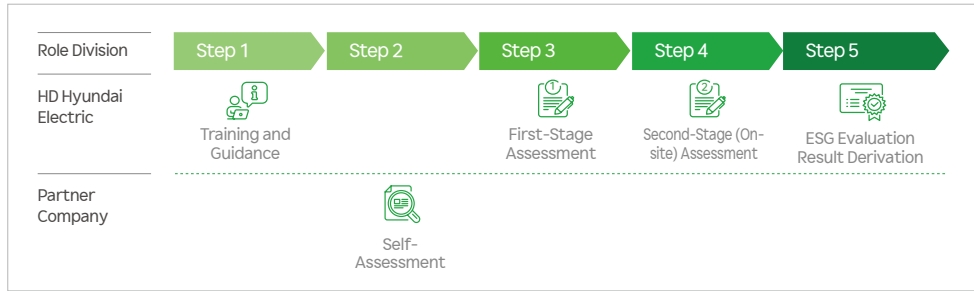
Supply Chain Management

Supply Chain Risk Management

Supply Chain ESG Assessment

HD Hyundai Electric operates an ESG risk diagnosis system to identify and mitigate potential risks within its partner companies at an early stage. The results are regularly reported to the Board of Directors and executive management. The company utilizes a total of 39 indicators that reflect domestic laws and regulations as well as country-specific risks, taking into account environmental, social, governance, and business relevance. To ensure comprehensive coverage of over 80% of the company’s annual transaction volume, HD Hyundai Electric shortlists candidates from top-tier suppliers based on transaction amounts (110 suppliers selected in 2024). From these, approximately 60 suppliers are selected based on internal supply chain risk criteria and undergo ESG assessments. The evaluation process includes a self-assessment, followed by first- and second-stage assessments. Notably, the second-stage assessment includes on-site audits that not only evaluate performance but also provide guidance for improvement in areas where deficiencies are found. In addition, new partner companies that receive high scores in the ESG assessment are awarded additional points in the partner company selection process.

Supply Chain ESG Assessment Process



Supply Chain ESG Assessment Indicators

Assessment Area	Key Evaluation Items
Environment	Environmental management, energy management, greenhouse gas emissions, environmental regulations, waste, pollutants, hazardous chemicals, resource recycling
Social	Human rights, labor-management consultation, rules of employment, statutory obligations, working hours, employment contracts, fair trade, personal data protection, social contribution, rest facilities
Safety	Occupational health and safety management, safety and health organization, worker feedback, safety and health training, risk assessment, hazardous tasks, safety inspections, personal protective equipment (PPE), safety and health signage, workplace environment monitoring, musculoskeletal disorders, chemical safety, first aid, emergency preparedness, fire safety activities, health checkups
Governance	Ethics(compliance, anti-corruption, etc.), ESG management, stakeholder grievance channels, stakeholder communication, risk management

Supply Chain ESG Risk Assessment Targets and Methodology

Category	New Suppliers	Existing Suppliers
Assessment Target	Companies seeking to establish new business relationships	Key partner companies identified and managed based on strategic importance and ESG risk
Assessment Method	One-time document-based evaluation (with supporting evidence)	① Training & Guidance: Provide ESG evaluation introduction and guideline training ② Self-Assessment: Checklist-based self-evaluation ③ First-Stage Assessment: Document-based review based on self-assessment ④ Second-Stage Assessment: Additional on-site evaluation for suppliers identified as high-risk based on the first-stage assessment ⑤ Compile and analyze results to identify key ESG risks and assess the ESG management level of each partner company
Assessment Frequency	Ongoing	Once a year
Evaluation Criteria	• Based on the ESG checklist for new supplier registration • Total of 21 items (Environment 5, Social & Safety 12, Governance 3, Disclosure 1) • Document-based evaluation only	• Based on the ESG evaluation guideline • Total of 39 items (Environment 8, Social 10, Safety 16, Governance 5) • Total score: 390 points (Document + On-site) • Graded from Level 1 to Level 7
Utilization of Results	Additional score given to new suppliers with over 70 points • 70–80: +1 point • 80–89: +2 points • 90–100: +3 points	• On-site evaluation feedback report provided to companies undergoing second-stage assessment • Improvement status reviewed in the following year’s evaluation

Supply Chain ESG Self-Assessment Checklist

HD Hyundai Electric Co., Ltd. Supply Chain ESG Self-Assessment Checklist					
Environmental Section					
Code	Assessment Item	Score	Max Score (10 pts)	Self-Assessment	Basis for Self-Assessment
E-01	Establishment of Environmental Management System	Document	10		
	Has the company established and implemented an environmental policy, goals, and action plans?	On-site	0		
Indicator Description	Determine whether the company has established and publicly announced an environmental management policy that expresses its commitment to environmental practices, and whether it has developed, posted, and shared a corresponding strategy and objectives.				
1	The CEO reviews the environmental report and reflects it in next year’s plans.				
2	Environmental Management Policy and Objectives (KPIs) are established and performance is evaluated.				
3	Environmental Management Policy and Objectives (KPIs) are established and action plans are in place.				
4	Only the Environmental Management Policy has been established.				

Supply Chain Management

Supply Chain ESG Assessment Results and Improvement Support

Based on the supply chain ESG management framework established in 2023, HD Hyundai Electric set a target to evaluate over 60 partner companies in 2024 and assessed a total of 61 companies to determine their ESG management levels. First-stage evaluations were conducted through self-assessments and document-based reviews. Subsequently, 16 companies identified as requiring more in-depth evaluation underwent second-stage on-site assessments.

To address the ESG risks identified during the evaluations, HD Hyundai Electric provided each partner company with a report detailing areas for improvement and recommended corrective actions. For companies requiring continuous monitoring, follow-up evaluations will be scheduled in the following year to verify the implementation of improvements.

Partner Company Improvement Management and Support

Area	Key Areas for Improvement Based on ESG Assessment
Environmental	· Managing energy use per unit of output · Managing GHG emissions per unit of output
Social	· Establishing a human rights management system · Enhancing corporate social responsibility activities
Safety	· Establishing a safety and health management policy · Organizing and operating a safety and health council
Governance	· Establishing a code of ethics and conduct and providing training for employees

Partner Company Grievance Handling

To build mutual trust with partner companies and resolve practical difficulties, HD Hyundai Electric operates multiple communication channels. Each department and responsible personnel continuously monitor grievances from partner companies, and when necessary, visit sites to collect Voice of Customer (VOC) and support prompt resolutions. At the company-wide level, an online communication channel is provided through the company website to receive partner company concerns and suggestions. In particular, six rounds of partner company meetings were held between June and July 2024. During these sessions, company executives shared business directions and held in-depth discussions with partner companies about their challenges and suggestions for improvement.

HD Hyundai Electric will continue to strengthen on-site, continuous communication, listening to partner company voices, and laying the foundation for mutual development.

Partner Company Grievance Handling Performance

 Grievance channel

Category		Unit	2022	2023	2024
Partner company grievance handling	Partner company grievance handling rate	%	100	100	-
	Number of grievance reports received	cases	5	2	0
	Number of grievance cases resolved	cases	5	2	0

Partner Company Training

As part of a training support program to strengthen field job competencies of partner companies, HD Hyundai Electric offers crane operation qualification training for in-house partner companies. This program provides practical opportunities to enhance the skills needed to perform tasks safely and professionally. In 2024, crane operation training was provided for 80 employees from 15 partner companies, totaling 320 hours of instruction.

Supply Chain Management

Supply Chain¹⁾

	Category	Unit	2022	2023 ³⁾	2024
Supply Chain Management	Number of partner companies	companies	592	649	738
	Number of key partner companies ²⁾	companies	40	47	115
	Proportion of purchases from key partner companies	%	40.72	42.75	57.64
	Purchase amount from key partner companies	KRW million	564,999	693,124	984,555
	Total purchase amount	KRW million	1,387,459	1,621,524	1,708,150
Supply Chain Evaluation	Number of partner companies assessed via document review	companies	98	40	61
	Number of key partner companies assessed via document review	companies	37	38	54
	Number of partner companies assessed via on-site audit	companies	98	40	16
	Number of key partner companies assessed via on-site audit	companies	37	38	15
	Number of partner companies with identified risks	companies	0	0	16
Supply Chain Risk Mitigation	Number of partner companies with mitigation plans established	companies	0	0	16
	Number of key partner companies with mitigation plans established	companies	0	0	15
	Number of partner companies with mitigation plans implemented	companies	0	0	16
	Number of key partner companies with mitigation plans implemented	companies	0	0	15
	Number of partner companies supported in risk mitigation planning	companies	0	0	16
Supply Chain ESG Capability Enhancement Program	Number of key partner companies supported in risk mitigation planning	companies	0	0	15
	Number of partner companies with terminated contracts due to unmitigated risks	companies	0	0	0
	Number of partner companies participating in ESG programs	companies	0	0	16
	Number of key partner companies participating in ESG programs	companies	0	0	15

1) Previous reporting year data has been revised due to enhancements in the quantitative data calculation system

2) Key partner companies refer to members and candidate firms of the Partner Company Council managed by the Company

3) In 2023, ESG evaluation was conducted using enhanced assessment criteria through the Supply Chain ESG Management Support Program targeting major partner companies

Supply Chain Support Programs

Category	Unit	2022	2023	2024
Financial support expenditure	KRW million	105,644	91,571	104,093
Number of partner companies receiving financial support	companies	925	876	879
Number of participants in job competency development training	persons	49	77	80
Expenditure for job competency development training	KRW million	0	0	0

Supply Chain Management Targets

	Category	Unit	2022	2023	2024
Supply Chain Management Targets	Annual target number of partner companies for document-based assessments	companies	98	40	61
	Annual target number of partner companies for on-site assessments	companies	98	40	16
	Annual target number of partner companies supported with risk mitigation plans	companies	0	0	16
	Annual target number of partner companies participating in capacity-building programs	companies	0	0	16

Raw Materials

Raw Material Strategy and Policy

HD Hyundai Electric has established mid- to long-term strategies and policies to ensure a stable supply of raw materials and minimize negative impacts on sustainability. We mitigate the effects of price volatility and supply uncertainty by forecasting demand for key raw materials and diversifying our supply base. In addition, we enhance supply stability through strategic inventory management and long-term contracts.

In the procurement process, we also consider the potential impact on regions of high biodiversity value or ecologically sensitive areas. Guided by procurement principles that reflect environmental and social responsibility, we aim to secure resources in a responsible manner. From an ESG management perspective, we are working to establish a sustainable supply chain by expanding the use of recyclable resources and increasing the use of raw materials that meet external certifications or standards.

Responsible Raw Material Management

HD Hyundai Electric strictly restricts the use of conflict minerals associated with human rights violations and environmental destruction. We have established and implemented policies for responsible supply chain management. In collaboration with suppliers, we ensure transparent traceability of raw material origins to proactively identify risks within the supply chain and block the use of inappropriate resources, thereby expanding a culture of sustainable and responsible raw material management. In particular, we have established a Code of Conduct for our partner companies and require them to sign a Social Responsibility Pledge, thereby further strengthening our ethical sourcing framework.

Conflict Minerals¹⁾

HD Hyundai Electric avoids the use of raw materials such as tungsten, tin, gold, tantalum, and cobalt sourced from conflict-affected and high-risk regions. We comply with international due diligence standards such as the OECD Due Diligence Guidance, and take action to prevent human rights violations and corruption in our supply chain. We also require partner companies to avoid using conflict minerals and collaborate with clients to support global efforts to restrict their use. We continue to manage our supply chain to ensure that resources associated with armed groups are excluded.

1) Conflict minerals refer to tin, tantalum, tungsten, and gold (commonly referred to as 3TG) sourced from conflict-affected and high-risk countries, including the Democratic Republic of the Congo (DRC), Sudan, Rwanda, Burundi, Uganda, Congo, Zambia, Angola, Tanzania, and the Central African Republic

Origin Management Training for Partner Companies

In July 2024, HD Hyundai Electric conducted origin management training on Free Trade Agreements (FTAs) for approximately 30 employees from 21 partner companies. Given the growing number of requests for certificates of origin from global customers, as HD Hyundai Electric continues to expand exports worldwide, this training was conducted to enhance partner companies’ origin verification capabilities and improve the reliability of their origin certificates—which serve as the foundation for HD Hyundai Electric’s own documentation. Moving forward, we plan to offer consulting services and financial support in connection with the Korea International Trade Association’s “OK FTA” program, helping partner companies strengthen their origin management practices and advancing mutual growth.



Raw Material Consumption^{2), 3)}

Category	Unit	2022	2023	2024
Electrical steel consumption	ton	67,206	34,660	32,943
Copper wire(rectangular) consumption	ton	4,798	5,675	6,438

2) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system

3) Scope: Domestic operations only

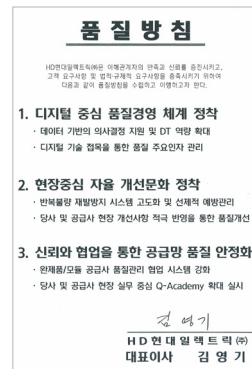
Product Safety and Quality

Quality Policy and Management System

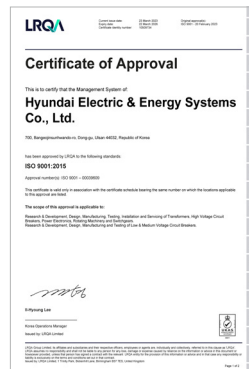
HD Hyundai Electric establishes annual company-wide quality KPIs to improve quality awareness and achieve our quality policy goals, and we systematically manage and monitor their implementation. In fulfilling our corporate social responsibility to customers and stakeholders, we have developed a clear quality policy that sets the direction for quality management and reinforces our commitment to execution.

To prevent the falsification or tampering of data related to product manufacturing and to ensure data integrity and reliability, we operate a quality data platform. This platform manages data input and output, secures the traceability of quality information, and transparently provides inspection and test reports. The consolidated quality data is visualized through a real-time dashboard, enabling prompt and effective corrective actions based on data analysis when quality issues occur. In doing so, we pursue a data-driven quality management system.

To establish a sustainable shared growth model with our partner companies, we implement the executive-level Q-Walk campaign, conduct regular site visits by purchasing and quality executives, and operate a VOC (Voice of Customer) feedback program. These initiatives support the enhancement of manufacturing processes and product quality at our partner companies. In addition, approximately 3,500 on-site inspections were conducted by our quality inspectors in 2024, and through the Q-Academy program, we provide technical guidance and knowledge sharing to strengthen the capabilities and skills of our partner companies



Quality Policy



Quality Management System (ISO 9001:2015)

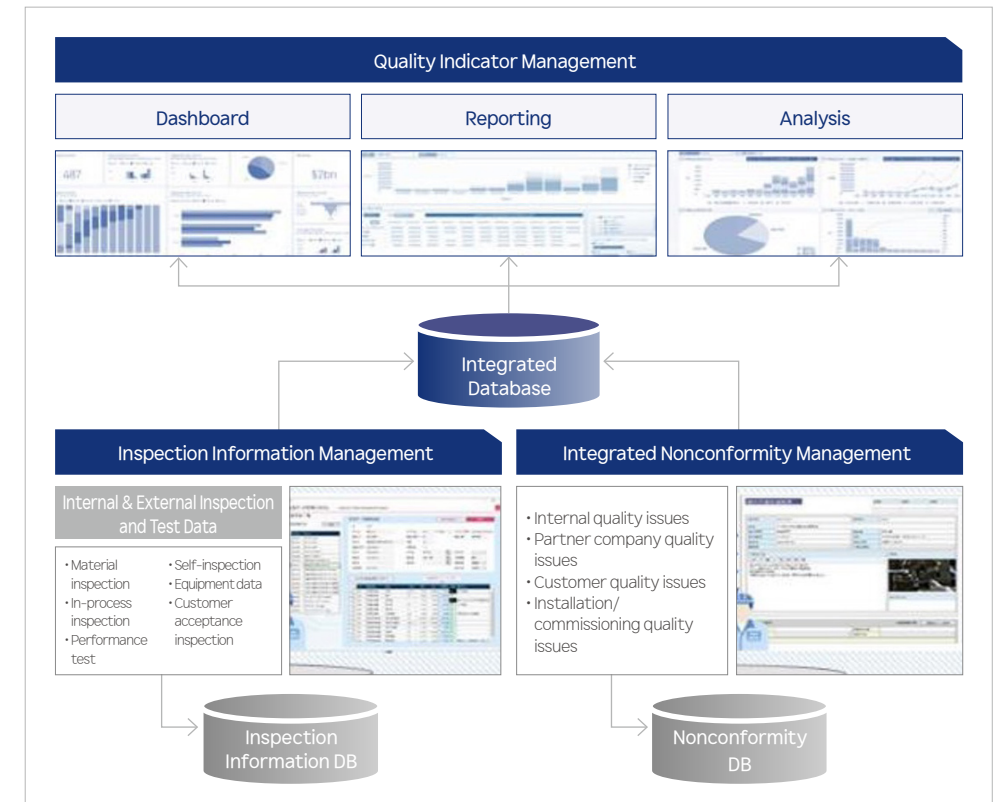
Validity Period
2023.03.20 – 2026.03.22

Site
Ulsan Plant 1, Ulsan Plant 2, Seonam Plant, Anseong Plant, Bundang GRC, Yongin R&D Center

Data-Driven Quality Management

HD Hyundai Electric fulfills its corporate social responsibilities to customers and stakeholders by operating strict nonconformity management and quality assurance procedures to enhance customer satisfaction. In alignment with the era of digital transformation, we have established the HE-QMS (Hyundai Electric Quality Management System) platform to ensure data reliability and embed company-wide quality innovation and management capabilities, thereby enabling the delivery of high-quality products to customers. We are continuously upgrading this platform to drive customer-centric innovation.

Quality Data Platform



Product Safety and Quality

Product Accountability Management

HD Hyundai Electric ensures product accountability by transparently providing customers with key quality information, including test reports. When quality issues occur at a partner company, we conduct root cause analysis and implement preventive measures. All related records are digitized and managed to enable post-delivery traceability. Real-time dashboards share collected quality data, enabling prompt identification of issues. In the event of a problem, we take immediate corrective actions through cross-functional collaboration, thereby reinforcing a company-wide accountability framework for quality management.

Digitalization of Quality Control

To ensure consistent compliance with standard procedures and minimize human error across all processes—from production to inspection and testing—HD Hyundai Electric has adopted and operates video-based manuals. These guides allow operators and inspectors to clearly understand and follow each step, improving both accuracy and adherence to quality standards. This approach not only enhances process efficiency but also contributes to strengthening our overall quality competitiveness. In particular, our “visual quality control” initiative helps identify and mitigate potential on-site risks in advance. Strengthening digital quality control is a key driver in building a smart manufacturing environment and securing sustainable quality at HD Hyundai Electric.

Quality Management

Category		Unit	2021	2022	2023	2024
Product recalls	Number of recall cases	cases	0	0	0	0
	Cost incurred from recalls	KRW	0	0	0	0

Development of Quality Talent

HD Hyundai Electric systematically cultivates professionals across manufacturing and quality management by delivering training programs through digital platforms. Individual learning progress and effectiveness are regularly monitored and evaluated. Through this educational infrastructure, we foster talent equipped with customer-oriented mindsets and problem-solving capabilities, enhancing our quality competitiveness through both self-development and practical application. We will continue to nurture specialized quality professionals as a key growth engine in fulfilling customer satisfaction.

Quality Training

To systematically enhance the capabilities of employees and partner companies, and to raise overall quality standards, HD Hyundai Electric operates the Q-Academy (Quality Academy). In 2024, we invited external experts to deliver training on quality management systems and special processes, aiming to maximize hands-on learning outcomes. Following each course, we conduct satisfaction surveys to assess content quality and its applicability in daily operations. Additionally, the Quality Department hosts quality seminars every Wednesday, providing a space for employees to share various quality issues and case studies while deepening their professional expertise. This ongoing cycle of training and applied learning strengthens both individual capabilities and company-wide quality standards, forming a practical foundation for HD Hyundai Electric’s sustainable competitiveness.

Quality Management System and Technical Training

Category	Training	Target Participants	Key Topics
Quality Management System	Explosion-proof Quality Management System	Sales, Design, Production, Quality Departments, Partner company	• Basic concepts of explosion-proof systems, Certification and applicable regulations • ISO/IEC 80079-34
Special Processes	Painting / Welding / Nondestructive Testing	Design, Production, Quality Departments, Partner company	• International Standard ISO 12944 • Welding techniques, materials, conditions, defects • ASME Sec. IX, AWS D1.1 • NDT (RT / UT / MT / PT)
Seminar	Weekly Quality Seminar	Quality Division	• Risks of generator overexcitation, among others

Q-Academy (Quality Academy)

Course Title	Date	Training Hours	Participants
Basic Theory and Practice of Destructive Testing	2024.04.19	3 Hours	24 Persons
Fundamentals of Painting and Surface Treatment	2024.05.09	3 Hours	26 Persons
Basics of Painting Specification Design (ISO 12944 Overview)	2024.05.09	2 Hours	26 Persons
Nondestructive Testing Course I	2024.09.27	6 Hours	26 Persons
Introduction to Welding Materials	2024.06.05	1.5 Hours	26 Persons
Introduction to Welding Machines	2024.06.05	1.5 Hours	23 Persons
On-site Technical Guidance for partner company (Inheung Industries)	2024.06.05	2 Hours	12 Persons
Nondestructive Testing Course II	2024.10.25	6 Hours	20 Persons

Product Safety and Quality

Customer Satisfaction

HD Hyundai Electric receives customer complaints regarding field issues and systemic problems through various channels and reflects them in actual quality improvements. All complaints are processed with a 100% resolution rate.

Customer Satisfaction Score

Category	Unit	Performance				Target
		2021	2022	2023	2024	2024
Customer satisfaction ^{1),2)}	score	79	83	82.4	88.1	84

1) Survey conducted only for major customers whose complaints about power distribution products were fully addressed
2) Customer satisfaction score reflects both service satisfaction and product quality satisfaction

Violations Related to Products and Services

Category	Unit	2024
Violations of safety and health regulations related to products/services	cases	0
Violations related to marketing communications	cases	0

Quality Management for Partner companies

HD Hyundai Electric systematically manages the quality of partner companies through a dedicated department for material inspection and component warranty, aiming to ensure competitiveness throughout the supply chain. In principle, quality audits of partner companies are conducted every three years through globally recognized third-party certification bodies such as Lloyd's Register and DNV. For strategically important partner companies, an additional annual quality capability assessment is conducted to enhance evaluation accuracy. Furthermore, each component used in our products is assigned a unique inspection code, allowing for unit-level quality reviews and traceability. This has enabled the company to enhance its quality management system.

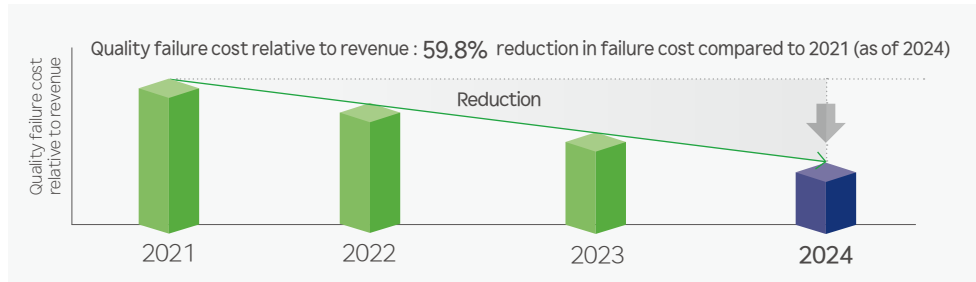
Enhancement of Quality Inspection System

HD Hyundai Electric is enhancing the efficiency of its quality management by incorporating digital technologies. A tablet-based assembly inspection system has been introduced, enabling workers to compare design drawings with actual assembly conditions in real time. This allows for the early detection of quality issues on the shop floor and enables prompt corrections. The introduction of digital quality management is expected to lead to tangible outcomes such as defect rate reduction and increased operational efficiency. The system is continuously being enhanced to deliver sustained performance gains.

Quality Management Targets

HD Hyundai Electric monitors losses caused by product quality failures as a cost indicator and continuously works to reduce these costs relative to revenue. In 2024, we achieved a reduction of approximately 60% compared to 2021, and we are pursuing ongoing company-wide quality improvement and process innovation activities to minimize quality failure costs.

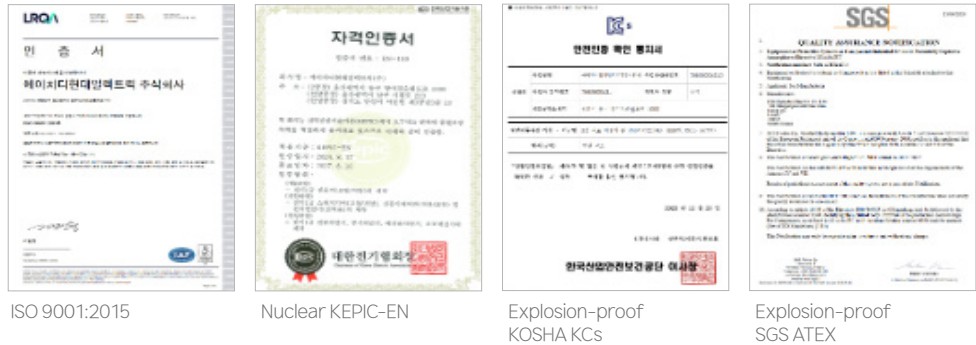
Quality Management Performance



Certifications

HD Hyundai Electric complies with ISO 9001 and regulatory requirements for nuclear and explosion-proof products, maintaining all relevant certifications.

Quality Management System Certifications

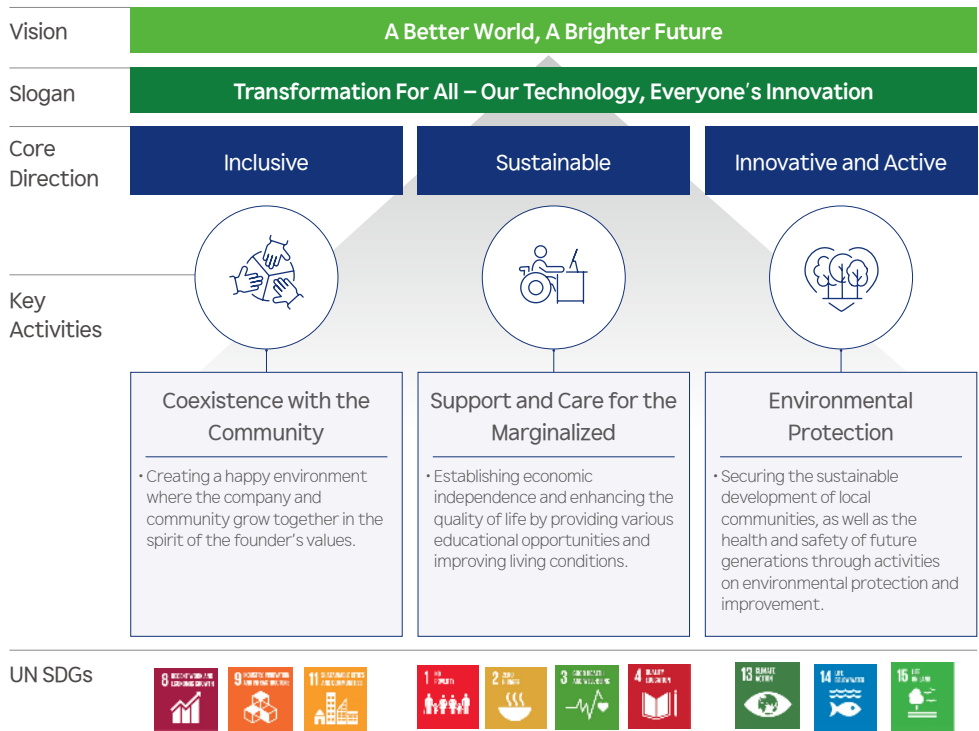


Local Community

Local Community Support Policies

HD Hyundai Electric actively contributes to solving social challenges by promoting sustainable and sincere social contribution activities to realize “A Better World, A Brighter Future.” These efforts support the underprivileged, revitalize the local economy, and nurture future generations. Employees also engage in identifying social contribution programs tailored to local community needs. Aligned with the Group’s strategic direction, the company has designated “Coexistence with Local Communities”, “Self-Reliance Support and Care for the Underprivileged”, and “Environmental Protection” as its key focus areas. Going beyond simple problem-solving, we continuously expand our social contribution efforts in collaboration with various stakeholders—such as the HD Hyundai 1% Sharing Foundation and the Community Council—to contribute to achieving the UN Sustainable Development Goals and creating lasting social value.

Social Contribution Framework



Mid- to Long-Term Goals for Social Contribution

HD Hyundai Electric has established mid- to long-term goals for its three key focus areas— Win-Win Partnership with Local Communities, Self-Reliance Support and Care for the Underprivileged, and Environmental Protection—based on the slogan “Transformation For All.”

Mid- to Long-Term Goals for Social Contribution

Category	Phase 1 (~2025)	Phase 2 (~2027)	Phase 3 (~2030)
Coexistence with the Community	- Establish cooperation with social contribution organizations - Payroll donation and special sponsorship via HD Hyundai 1% Sharing Foundation - Donation to Community Chest of Korea - Support for local welfare facilities - Rice donation to Dong-gu, Ulsan welfare facilities - Employee payroll donation for affiliated welfare facilities in Seongnam	- Strengthen cooperation with social contribution organizations - Expand employee participation in 1% Sharing Foundation (10% increase in donation and volunteer involvement) - Enhance support for public interest organizations and NGOs - Expand support for local welfare facilities - Broaden partnerships and sponsorship with welfare facilities in site locations	- Advance cooperation systems with social contribution organizations - Strengthen donation and designation systems (e.g., donor proposals, designated donation programs) - Encourage employee participation and feedback (e.g., performance sharing, white paper publication) - Customized support for local welfare facilities - Diversify sponsorship projects
Support and Care for the Marginalized	- Support for children and youth from vulnerable groups - Meal sponsorship for children at risk of malnutrition - Home improvement projects for children from families in crisis - Plan and launch ‘Warmth Sharing Summer Santa’ program - Seasonal support tailored for vulnerable groups - Donation of summer kimchi	- Institutionalize support for children and youth from vulnerable groups - Expand scale of existing programs - Institutionalize ‘Warmth Sharing Summer Santa’ - Secure system for customized sponsorship - Promote regularization through local government cooperation	- Establish care model linking self-reliance for children/youth - Integrated support for housing, meals, and education - Pilot family-centered programs (family camps, cultural experiences, psychological counseling, etc.) - Advance ‘Warmth Sharing Summer Santa’ program - Pilot employee-participation-based (talent donation) initiatives
Environmental Protection	- Environmental cleanup around sites - Removal of waste and weeds at two Ulsan sites - Participation in biodiversity conservation and restoration - Activities to improve habitats of endangered/protected species	- Continue environmental cleanup around sites - Add one more site outside Ulsan - Expand biodiversity conservation and restoration activities - Encourage employee participation (share and promote activity outcomes)	- Broaden environmental cleanup activities - Involve local residents and volunteers - Advance biodiversity conservation and restoration - Develop measurable KPIs (e.g., invasive species removal, ecological index improvements)

Local Community

Community Engagement Activities

Coexistence with the Community

CAD 100,000 Donation to BC Hydro's Northern Lights College Foundation

In June 2024, HD Hyundai Electric donated CAD 100,000 (approximately KRW 100 million) to the Northern Lights College Foundation in British Columbia, Canada. This donation was made upon the recommendation of BC Hydro, with whom the company has maintained a business relationship for over 40 years. The donation aims to contribute to the advancement of the regional energy industry and workforce development. Northern Lights College operates training programs linked to BC Hydro's Site C hydroelectric project, and the donation will support the educational programs of the Energy Research Institute within the college. The initiative is expected to enhance energy-related technical training, strengthen educational infrastructure, and improve access for local students.

USD 10,000 Donation to Montgomery Fire & Police Department

In November 2024, HD Hyundai Electric donated USD 10,000 to the fire department in Montgomery, Alabama, where the company's U.S. production plant is located. The donation was made to support community safety and well-being. The donation ceremony was attended by Executive Director Chang-Gon Son, local employees, Montgomery Fire Chief Milford Jordan, and local firefighters. The funds will be used to purchase and upgrade safety gear for firefighters, expected to improve disaster response capabilities in the local community. HD Hyundai Electric plans to continue fulfilling its social responsibility as a member of the communities where it operates and to promote shared growth through sustained engagement.



CAD 100,000 Donation to Northern Lights College Foundation



USD 10,000 Donation to Montgomery Fire & Police Department

Donation Campaign with Heart of Alabama Food Bank

At its Alabama plant, a global production hub, HD Hyundai Electric partnered with the Heart of Alabama Food Bank to organize a donation campaign. From December 2023 to November 2024, local employees donated USD 6,555, and the company matched the amount for a total of USD 13,110. During the plant's inauguration, the company introduced the slogan "Transformation For All" and presented its roadmap for U.S. social contribution programs. These initiatives aim to strengthen ties with the local community and promote sustainable growth. Future plans include support for local educational programs and participation in environmental protection initiatives.



Donation Campaign with Heart of Alabama Food Bank

Park Hang-seo Football Clinic Sponsorship

In Hanoi, Vietnam, HD Hyundai Electric hosted the HELLO DREAM DAY Park Hang-seo Football Clinic, a charitable event for children with hearing impairments. Coach Park Hang-seo visited a school for the hearing-impaired and conducted football training as part of a talent donation initiative. The event was supported jointly by HD Hyundai Vietnam Shipbuilding and two local distributors of low- and medium-voltage circuit breakers. In addition to football lessons, children received school supply kits. HD Hyundai Electric aims to continue such meaningful social contribution activities in Vietnam and other overseas locations, furthering its commitment to community engagement.



Park Hang-seo Football Clinic

Local Community

Support and Care for the Marginalized

Winter Supplies Donation to Ulsan Dong-gu Senior Welfare Center

HD Hyundai Electric delivered KRW 25.3 million to the Ulsan Dong-gu Senior Welfare Center to provide winter supplies for seniors facing economic difficulties. The donation aims to protect vulnerable seniors from extreme cold and improve their quality of life. The Partner Company Council also contributed to the fundraising. With the donated funds, winter gear and food were provided to 509 beneficiaries of the senior customized care service.

Rice Donation to Local Welfare Facilities

For nearly 20 years, HD Hyundai Electric has supported welfare facilities in Ulsan's Dong-gu area through the Agricultural and Fishing Villages Cooperation Fund of the Large, Small and Medium Business, and Agricultural and Fisheries Cooperation Foundation. In 2024, rice worth KRW 10.42 million was delivered to social welfare facilities, helping neighbors in need cope with rising food prices.

Blood Donation

Since 2021, HD Hyundai Electric has maintained a long-term blood donation partnership with the Korean Red Cross blood centers in Ulsan and southern Seoul, holding regular group donation events. In 2024, 140 employees participated in quarterly and semi-annual blood drives. The collected blood was delivered to local medical institutions in need through the Korean Red Cross.

Support Programs for Children and Youth in Vulnerable Groups

To support the healthy and safe growth of future generations, HD Hyundai Electric conducted various activities targeting children and youth from vulnerable groups. In 2024, KRW 20 million in medical expenses were provided to abuse survivors through the Happy Supporters program, a public interest initiative of the HD Hyundai 1% Sharing Foundation. Additionally, hygiene kits and health education programs worth KRW 20 million were offered to 60 underprivileged girls in Ulsan.

As part of an employee-participation initiative, a donation challenge was held where donations were made based on the distance completed during a charity marathon. The KRW 6.93 million raised was used in collaboration with Good Neighbors to improve the living environment of two underprivileged households in Seongnam.

Community-Driven Social Contribution Activities

HD Hyundai Electric plans and promotes effective social contribution activities based on feedback from community organizations. In 2024, HD Hyundai Electric responded to concerns that individuals with severe disabilities often lack subsidies for eyeglasses and struggle without proper vision correction. In Seongnam, the company provided precision eye exams and custom-made glasses to 60 individuals, valued at KRW 18 million.

Recognizing that donations tend to concentrate around holidays and year-end, while contributions are relatively scarce in the summer—leaving many vulnerable households struggling—HD Hyundai Electric partnered with the Seongnam Volunteer Center to plan and implement the Warmth Sharing Summer Santa initiative, a social contribution program tailored specifically for the summer season.

The Warmth Sharing Summer Santa initiative delivers tailored support to vulnerable households by identifying their specific needs during the summer season, when donations and supplies are typically depleted. In 2024, HD Hyundai Electric provided kimchi worth KRW 20 million to underprivileged households in the Seongnam area to help ensure food security. The initiative will continue as part of the company's ongoing effort to offer practical and meaningful assistance to the local community.

Local Community

Affiliated Welfare Facility Sponsorship Program

Since 2018, HD Hyundai Electric has maintained sisterhood relationships with two welfare institutions in Seongnam, Gyeonggi Province: House of Open Love and Seongnam City Arium. In 2024, 95 employees participated in a payroll-sharing campaign, raising a total of KRW 5.173 million. The funds were used to support the operations of House of Open Love, a residential facility for people with developmental disabilities, and Seongnam City Arium, a housing facility for seniors living alone, helping to ensure a safe and comfortable living environment for their residents.

Procurement of Products and Services from Social Enterprises and Certified Workplaces for Individuals with Disabilities

As part of its commitment to inclusive growth with local communities, HD Hyundai Electric continues to source products and services from social enterprises and certified donation-based organizations. In 2024, the company purchased cotton gloves totaling KRW 33.354 million from the Sanggae Sheltered Workshop for the Disabled. It also commissioned floral wreath services from companies employing individuals with disabilities to support employee celebratory and memorial occasions. Additionally, for employee holiday gifts, the company procured goods worth KRW 132.927 million from donation-linked enterprises. These efforts contribute to employee well-being while supporting the sustainable development of local social enterprises.

Support through the HD Hyundai 1% Sharing Foundation

HD Hyundai Electric contributes a special fund annually to the HD Hyundai 1% Sharing Foundation, and its employees voluntarily participate in a monthly payroll donation program by contributing 1% of their base salary. In 2024, 159 employees took part in the initiative, raising approximately KRW 100 million. The donated funds were used to support the Foundation’s public interest programs, and all project activities and expenditures are transparently disclosed through monthly reports and official publications.

Donations and Social Contribution Expenditures

Category	Unit	2022	2023	2024
Total Donations and Social Contribution	KRW million	1,049	1,189	1,202

Environmental Protection

ESG Environmental MOU between HD Hyundai Electric and Seongnam City

HD Hyundai Electric signed a Memorandum of Understanding (MOU) with Seongnam City in Gyeonggi Province to promote shared growth in the ESG environmental sector. This joint agreement, involving nine companies based in Seongnam, aims to foster cooperation in future biodiversity conservation and species restoration projects within the city.



ESG Environmental MOU between HD Hyundai Electric and Seongnam City

Removal of Invasive Plant Species

In October 2024, HD Hyundai Electric carried out an environmental initiative to remove invasive plant species along the Tancheon Stream in Seongnam City. As part of the ESG environmental shared growth initiative established through its MOU with Seongnam City, the company removed species such as Japanese hop (*Humulus japonicus*), cocklebur (*Xanthium strumarium*), and common ragweed (*Ambrosia artemisiifolia*). This effort contributed to protecting native plant habitats and supporting biodiversity restoration in the region.



Removal of Invasive Plant Species

Local Community

Community Risk Management

HD Hyundai Electric actively utilizes both internal assessments and communication channels with local governments and residents to closely monitor the impact of its business activities on the community. One of the most frequently raised concerns from local residents is odor generated during the painting process, especially under the influence of sea breeze. In response, the company collaborates with member companies of the Ulsan Environmental Technicians Association in the Dong and Buk-gu districts to conduct regular odor inspections. Internally, HD Hyundai Electric has established a comprehensive response system and standard procedures for environmental accidents. These are supported by practical training programs aimed at minimizing potential negative impacts in advance. Waste, wastewater, and air pollutants are also managed in accordance with internal standards that exceed legal requirements, ensuring strong environmental controls. To strengthen community cooperation, the company also carries out regular maintenance activities in nearby rivers and roads to preserve the local environment and protect the ecosystem. These efforts reflect the company's commitment to improving the quality of life of local residents through ongoing social responsibility initiatives. As a result of these proactive measures, HD Hyundai Electric recorded zero environmental law violations and zero complaints from the community in 2024. The company remains committed to carefully identifying any community-related risks and implementing thorough preventive and mitigation actions to grow together with the local community.

Potential Negative Impacts on the Community and Mitigation Outcomes

Negative Impact	Cause	Mitigation Measure	Effective-ness
Odor	Odors generated during the painting process and dispersed by sea breeze	- Regular odor inspections in cooperation with relevant organizations such as the Ulsan Environmental Technicians Association - Prompt response to complaints and strengthened odor control	Medium
Environmental accidents and emergencies	Possible leakage of hazardous substances, fires, or explosions during power equipment manufacturing	- Establishment of internal response system and standard operating procedures (SOPs) - Conduct of environmental accident response training	Medium
Wastewater and waste management	Potential mishandling of wastewater and waste generated during manufacturing	- Selection of authorized contractors based on recyclability evaluation criteria - Legal disposal through certified waste management companies	Medium
Environmental complaints	Noise, air pollution, and other inconveniences caused by business activities	- Regular inspections in collaboration with relevant authorities and nearby businesses - Dedicated complaint response system and strengthened prevention efforts	High
Protection of local residents' rights	Possible negative impact on the living conditions and economic rights of local residents due to site operation	- Operation of compensation procedures to minimize resident impact - Implementation of fair compensation and relocation support in accordance with land compensation laws	Medium

GOVERNANCE

Ethics and Compliance	94
Corporate Governance	99
Shareholder Value	106
Risk Management	109
Information Security and Privacy	111



Ethics and Compliance

Ethics System and Policy

HD Hyundai Electric builds its ethics standards upon HD Hyundai Group's Ethics Charter and Code of Ethics, representing its core values through the concept of a "FOREST." Just as a forest symbolizes coexistence and mutual growth, HD Hyundai Electric fosters an ethical corporate culture grounded in six key principles: Fairness, Ownership, Responsibility, Enthusiasm, Safety, and Transparency and Trust.

Through these values, the company strives to become:

- A company customers and partner companies want to do business with,
- A company shareholders want to invest in,
- A company employees are proud to work for, and
- A responsible corporate citizen trusted by society and the nation.

In addition, as a participant in the UN Global Compact, the company actively engages in responsible business practices. HD Hyundai Electric provides clear standards of judgment and behavior for its employees and stakeholders through the Ethics Charter, Code of Ethics, Business Ethics Practice Guidelines, and the Partner Company Code of Ethics, in line with international norms. Key compliance areas include anti-corruption and bribery, prevention of discrimination, protection of information, avoidance of conflicts of interest, and prohibition of insider trading.

Ethics Charter

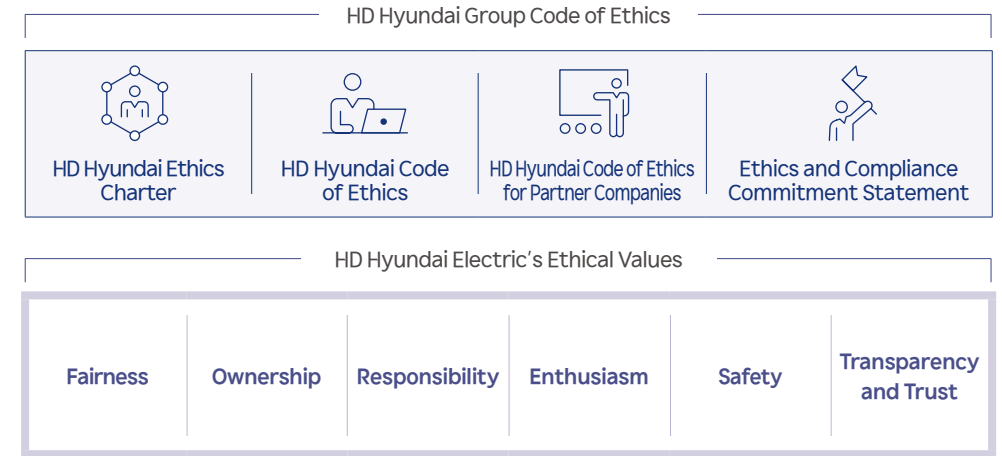


HD Hyundai Electric, led by its CEO, has declared its commitment to systematic implementation of ethics and compliance management, ensuring all members act with transparency and fairness. In light of strengthened regulations on collusion and unfair subcontracting practices, the company is committed to a high standard of transparency and ethical responsibility. To this end, the company operates a broad range of policies, guidelines, and regulations related to ethics and compliance. It has also implemented a company-wide compliance program to ensure adherence to all applicable laws and regulations.

HD Hyundai Electric requires its partner companies to refrain from using conflict minerals and actively participates in international initiatives aimed at banning such materials. The company remains committed to ensuring that no conflict minerals financing armed groups are included in its supply chain.

Ethics System

HD Hyundai Group Business Ethics Homepage



Ethics Process



Ethics and Compliance

Ethical Management Pledge

To ensure a thorough understanding and compliance with the company's ethical management regulations, HD Hyundai Electric requires all employees (for production and technical positions, those with managerial titles, senior technicians and above) and partner companies to submit an Ethical Management Pledge annually. This pledge is based on the company's ethical management policies and anti-corruption guidelines, and aims to prohibit unfair transactions, fraud, corruption, improper solicitation, and the offering of money or valuables. Additionally, the company conducts regular compliance self-assessments among all employees to assess compliance with ethical regulations. These efforts enhance employees' understanding of the rules and enable prompt corrective actions for any identified issues. Feedback is also collected regularly from employees and partner companies to assess the level of ethical management implementation. Based on the findings, HD Hyundai Electric identifies and reflects necessary improvements, continuously evaluating the effectiveness of its ethics program.

Ethics Training Activities

HD Hyundai Electric provides a range of ethics training programs to enhance stakeholder awareness and embed ethical practices into the organizational culture. The company offers systematic training for both employees and partner companies on ethical procedures, the Group's Code of Ethics, and related legal and regulatory trends. For new hires, ethics education is mandatory at the onboarding stage to ensure a clear understanding of the company's core values and ethical principles. Furthermore, the company develops and operates training content based on real-life unethical conduct cases, providing employees with practical learning opportunities and helping to foster a stronger ethical mindset.

Ethics Training¹⁾

	Category	Unit	2022	2023	2024
Ethics Training	Completion rate of Code of Ethics training ²⁾	%	67.78	63.18	68.94
	Number of employees completed training	persons	1,416	1,342	1,509

1) Data for previous reporting years may have been revised due to the enhancement of the quantitative data calculation system
2) Percentage of employees who completed the Code of Ethics training out of the total workforce

Compliance Governance System and Policy

HD Hyundai Electric has appointed a Compliance Officer directly under the CEO to establish a fair trade compliance system and to embed a culture of autonomous compliance as a foundation for sustainable management. The Compliance Officer develops an annual compliance activity plan and regularly reports the implementation status to the CEO and the Board of Directors, allowing for top-level monitoring and feedback. In addition, the company periodically reviews company-wide compliance practices and provides platforms for employees to discuss major compliance issues and determine improvement measures. To systematically support the Compliance Officer's duties, a dedicated unit for fair trade compliance has been established to offer practical assistance such as responding to regulatory changes and conducting pre-risk reviews.

📄 Declaration of Ethics & Compliance Conduct

Compliance Governance System



Fair Trade Compliance Pledge

HD Hyundai Electric is committed to practicing ethical management by strengthening its foundation for fair competition, and to establishing a fair and transparent corporate culture through compliance management, all in pursuit of sustainable value creation. To realize this management philosophy, all employees are required to fully understand and faithfully comply with the Fair Trade Compliance Program (CP) and related internal guidelines. In order to demonstrate their commitment to compliance, they also submit a Fair Trade Compliance Pledge. Through this internal implementation system, HD Hyundai Electric promotes a company-wide awareness of compliance and continuously strengthens the foundation for establishing a culture of fair trade.

Ethics and Compliance

Anti-Corruption Policy

HD Hyundai Electric ensures that all employees and partner company workers comply with anti-corruption laws and internal guidelines. The guidelines, based on the company’s Code of Ethics, provide clear behavioral standards and work procedures to ensure compliance with domestic and international anti-corruption regulations. All employees are required to use the stakeholder due diligence checklist to proactively assess whether any improper economic benefits are being exchanged in relation to their work. The company strictly prohibits acts of bribery, solicitation, or receipt of gifts and entertainment beyond what is socially acceptable.

Compliance Policy

To prevent unfair trade practices and anti-competitive behavior, HD Hyundai Electric operates a Fair Trade Compliance Program (CP) and discloses related policies transparently. The Compliance Officer, appointed by the Board of Directors, oversees the development and implementation of compliance policies in accordance with the company’s fair trade governance structure. To prevent potential risks such as unfair subcontracting, collusion, and abuse of market dominance, HD Hyundai Electric has strengthened its internal control system under strong top management commitment.

Compliance Program, CP

In April 2019, HD Hyundai Electric introduced the Fair Trade Compliance Program (CP) to promote a culture of law-abiding behavior and respect for competitive market order. The program is designed to encourage voluntary compliance with fair trade laws and raise awareness of legal obligations among employees. All employees must strictly follow the CP operating rules in their daily work. If they become aware of any violations of competition law, they are required to report them immediately to the Compliance Officer. In addition, employees must consult with the Compliance Officer in advance for any matters that may involve a potential violation. The Compliance Officer develops internal policies in line with updates to relevant laws and conducts ongoing monitoring and inspections to manage compliance risks. The results are regularly reported to the Board of Directors to support executive accountability for compliance. Each department also designates Compliance Leaders, who are responsible for promoting a consistent compliance culture throughout the organization and driving effective compliance activities.

Compliance Training for Employees

HD Hyundai Electric systematically manages compliance risks by conducting evaluations based on risk areas such as collusion, unfair support, subcontracting, use of dispatched labor, corruption, and economic sanctions. Through this process, the company identifies departments with high or medium compliance risks and provides tailored training on key competition law issues to those departments on a regular basis.

In 2024, a compliance training plan was developed based on job relevance by department to proactively address risks such as corruption and unfair trade practices. Compliance liaisons were appointed within each department, and training was conducted to explain their roles and the company’s compliance system. Departments received risk evaluation forms, and based on the results, high- and medium-risk groups were identified. Approximately 77% of employees completed online or in-house group training and submitted compliance checklists. In the second half of the year, HD Hyundai Electric conducted a focused compliance review of the Subcontracting Act and provided targeted in-person training to departments with high operational relevance. Additionally, online training on anti-corruption, fair trade, economic sanctions, and illegal dispatch practices was offered to all departments categorized as medium risk or higher for each issue.

In 2025, HD Hyundai Electric will continue to enhance this evaluation and training system to deliver ongoing, job-specific compliance education based on the level of exposure to major risk areas across departments.

Compliance Training

Training Program	Training Details	Target Participants	Number of Employees Completed (persons)
Compliance training for departmental liaisons	Introduction to the compliance system and roles of compliance liaisons (online training)	Compliance liaisons by department	57
2024 H1 compliance training	Online compliance training	All employees	1,574
2024 H2 compliance training	Economic sanctions, fair trade, anti-corruption, and illegal dispatch	Departments assessed as medium risk or higher for each topic	401
Customized departmental training	Customized in-person training focused on subcontracting law and related risks	18 departments with medium risk or higher in subcontracting	278

Ethics and Compliance

Compliance Risk Assessment and Management

Compliance Risk Assessment

HD Hyundai Electric distributes a Fair Trade Compliance Checklist to departments with higher compliance risk to help identify legal exposure. This checklist is designed to preemptively detect potential violations of Korean laws related to unfair trade practices and economic sanctions. In 2024, the checklist was distributed to all relevant departments, focusing on risks such as unfair trade, sanctions, and corruption. Based on the assessments, risk levels were re-evaluated by department, and corresponding mitigation measures are being implemented. In 2025, we plan to conduct the same assessments across all departments to revalidate risk levels and job relevance, followed by tailored training sessions based on the results.

Compliance Risk Assessment

Category	Management Plan	Mitigation Measures & Effectiveness	Risk Level ¹⁾
Fair Trade Act (Collusion, Unfair Support)			Low → Very Low
Subcontracting Act / Act on the Promotion of Mutually Beneficial Cooperation	• Regular compliance training for all employees • Target-setting for high-risk departments	Fair Trade Compliance Manual updated and distributed	Medium → Low
Temporary Agency Worker Act	• Specialized compliance training for high-risk departments		Very Low
Anti-Corruption Laws (Domestic & International)	• Assessment and on-site inspections	Compliance alerts and issue updates shared via internal notices and newsletters	Very High → Medium
Economic Sanctions Regulations			Low → Very Low

1) Risk levels are determined based on a combination of likelihood and severity of compliance risk for each category, assessed through department-level self-evaluations. Results are classified into five tiers: Very Low, Low, Moderate, High, and Very High.

Legal Support System and Risk Management

To reinforce anti-corruption and legal compliance, HD Hyundai Electric utilizes a centralized legal support system to operate a range of ongoing compliance programs, including “Provision of Economic Benefits” and “Stakeholder Due Diligence.” The status of our Fair Trade Compliance Program is also regularly monitored to manage corruption-related risks systematically. Legal guidelines and education on key laws—such as the Unfair Trade Practices Act, the Subcontracting Act, and trade secret protection—are provided to all employees. Relevant regulations, precedents, and internal guidelines are posted internally, with legal reviews offered as needed. Major compliance regulations—including anti-corruption, economic sanctions, and fair trade—are published on the company’s intranet, ensuring all departments are informed and aligned. Additionally, legal and regulatory updates, both domestic and international, are shared regularly to help departments identify and respond to emerging legal risks in advance.

Compliance Program Implementation Overview

Program Name	Description
Provision of economic benefits Program	Prohibits the provision of money or valuables to public officials, except in cases specified under Article 8, Paragraph 3, Items 1–8 of the Improper Solicitation and Graft Act. Each case is reviewed to confirm legal exceptions and provide guidance.
Stakeholder due diligence program	For counterparties under review, compliance is assessed using the U.S. Department of the Treasury’s Office of Foreign Assets Control (OFAC) SDN List and Transparency International’s Corruption Perceptions Index (CPI), to determine the appropriateness of the transaction.
Economic sanctions screening program	To prevent and manage risks related to sanctioned transactions, a sanctions screening system is embedded in the sales management platform. This system checks counterparties and countries using the Consolidated Screening List provided by the U.S. International Trade Administration. The sanctions database is updated daily following changes in sanctions information.

Legal Compliance Program Due Diligence

Category	No. of Cases
Provision of economic benefits	0
Stakeholder due diligence	10
Economic sanctions screening	169

Anti-Corruption Risk Assessment

	Category	Unit	2022	2023	2024
Anti-corruption risk assessment	Anti-corruption risk assessment coverage rate	%	100	100	100
	Number of risk assessments conducted	cases	61	56	65
	Number of assessment targets	cases	61	56	65

Ethics and Compliance

Ethics Reporting System

HD Hyundai Electric operates multiple channels through which employees and stakeholders can report unethical conduct—either anonymously or with their real names. Reports may concern fraud, corruption, or institutional unfairness, and each case is investigated thoroughly, with corrective measures implemented as needed. To actively encourage the practice of ethical management, HD Hyundai Electric has institutionalized a reward system that provides up to KRW 1 billion for reports that prevent financial losses, enable recovery of assets, or contribute to significant cost savings.

Whistleblower Protection Program

HD Hyundai Electric places the highest priority on protecting whistleblower identity. All information related to reports is managed with strict confidentiality, and is securely destroyed after investigation results are communicated. In addition, a dedicated grievance channel is available for partner companies to report violations of the company’s ethical standards during business transactions. Reports can be submitted either anonymously or with real names. The confidentiality of both whistleblowers and the content of reports is strictly protected, and the company ensures that no retaliation or discrimination occurs under any circumstances.

Code of Ethics Violations

Category	Unit	2022	2023	2024
Code of ethics violation handling rate	%	100	100	100
Total number of code of ethics violation reports	cases	5	2	2
Total number of resolved violation cases	cases	5	2	2

Compliance violations

Category	Unit	2022	2023	2024
Number of fair trade regulation violations	cases	0	0	0
Total monetary penalties for fair trade violations	KRW	0	0	0
Number of anti-corruption / bribery violations	cases	0	0	0
Total monetary penalties for anti-corruption / bribery violations	KRW	0	0	0

Corporate Governance

Board of Directors

HD Hyundai Electric operates a Board of Directors comprising five members: two executive directors, including the CEO, and three independent directors. The board is defined as the company’s highest permanent decision-making body, supporting key management decisions while also fulfilling its roles of oversight and checks and balances. To ensure transparency and soundness in corporate governance, the board operates subcommittees and has established and publicly disclosed governance regulations that reflect key principles such as diversity, independence, and accountability. In addition, to mitigate liability risks arising from executive misconduct and to provide a stable environment where executives can fully concentrate on their duties, the company maintains Directors and Officers (D&O) liability insurance. This is part of our commitment to responsible management aimed at enhancing shareholder value and protecting stakeholder interests.

Board of Directors Composition

As of May 31, 2025

Category	Name	Gender	Position	Appointment Date	Term (Years)	Career Highlights	Subcommittee
Executive Director	Kim Young-ki	Male	• CEO (Chair of the Board)	2025.03.25	2	Current) CEO of HD Hyundai Electric	• Independent Director Recommendation Committee • ESG Committee
	Keum Seok-ho	Male	• Executive Director	2023.3.22	3	Current) Head of Business Support Division, HD Hyundai Heavy Industries Current) Head of HR Support Division, HD Hyundai	• Internal Trade Committee
Independent Director	Han Chan-sik	Male	• Audit Committee Member • Member of Internal Trade Committee • Chair of Independent Director Recommendation Committee • Member of ESG Committee • Chair of Compensation Committee	2023.3.22	3	Current) Lawyer at Kim & Chang	• Internal Trade Committee • Independent Director Recommendation Committee • ESG Committee • Audit Committee • Compensation Committee
	Park Soo-hwan	Male	• Chair of Audit committee • Member of Internal Trade Committee • Member of Independent Director Recommendation Committee • Member of ESG Committee • Member of Compensation Committee	2024.3.26	3	Formerly) CEO of Samil PwC	• Internal Trade Committee • Independent Director Recommendation Committee • ESG Committee • Audit Committee • Compensation Committee
	Jeon Soon-ok	Female	• Audit Committee Member • Chair of Internal Trade Committee • Member of Independent Director Recommendation Committee • Chair of ESG Committee • Member of Compensation Committee	2025.03.25	3	Current) Executive Director, Jeon Tae-il Foundation, Director, Jeon Tae-il Memorial Hall	• Internal Trade Committee • Independent Director Recommendation Committee • ESG Committee • Audit Committee • Compensation Committee

Board Expertise

HD Hyundai Electric ensures the expertise of its Board of Directors by appointing individuals who possess not only broad industry experience but also specialized knowledge in fields such as finance, accounting, labor, and business management. To support sustainable growth and responsible management, the company utilizes a Board Skills and Expertise Matrix during the director nomination process. This matrix serves as a framework for identifying and evaluating candidates with diverse professional knowledge and practical experience, ensuring a systematic enhancement of overall board competency. In accordance with Article 55 of the Articles of Incorporation, independent directors are selected from individuals who possess professional knowledge or experience in management, economics, law, or relevant technical fields, or who are highly regarded figures in society, provided they meet the qualification requirements stipulated by the Commercial Act and relevant regulations. Additionally, if an independent director no longer meets the required qualifications, they are immediately disqualified from holding office. This rule helps uphold both the expertise and independence of the Board of Directors.

Board Skills and Expertise Matrix

Skills / Directors	Kim Youngki (Executive Director)	Keum Seok-ho (Executive Director)	Han Chan-sik (Independent Director)	Park Soo-hwan (Independent Director)	Jeon Soon-ok (Independent Director)
Management	V				
Human Resources		V			
Legal			V		
Finance & Accounting				V	
Labor					V
Industry Experience	V	V			

Corporate Governance

Board Independence

HD Hyundai Electric is strengthening the independence of its Board of Directors in order to establish a transparent and responsible governance structure. To ensure that the Board operates independently from management, controlling shareholders, and other stakeholders, a majority—60% of all directors—are appointed as independent directors. This composition fosters an environment in which directors are free to express objective and independent opinions.

The appointment of independent directors is conducted through a fair and transparent process in accordance with the Articles of Incorporation and relevant laws. The Independent Director Recommendation Committee discloses relevant information before candidate selection and recommends qualified candidates through a strict screening procedure. All independent directors of HD Hyundai Electric meet the independence criteria and play a vital role in securing the actual independence and functionality of the Board.

Key Qualifications for Independent Director Candidates

- Each independent director candidate must not have served as an executive officer of the company within the past two years
- Each independent director candidate must not be an immediate family member of any executive officer of the company or its subsidiaries
- Each independent director candidate must not be an employee or major shareholder of any entity, advisor, or consultant that has entered into a material advisory or consulting agreement with the company or its senior management
- Each independent director candidate must not be an employee or major shareholder of a key client or supplier of the company, as defined under Article 34(5)(2)(a) and (b) of the Enforcement Decree of the Commercial Act
- Each independent director candidate must not have served as a partner or employee of the company's external audit firm during the past two years
- Each independent director candidate must not have any economic interest or other material conflict related to matters resolved by the Board

Assessment of Board Independence

Category		Han Chan-sik	Park Soo-hwan	Jeon Soon-ok
1	Each independent director must not have been employed by the company as a CEO or other executive officer within the past year	○	○	○
2	Each independent director, their spouse, or their lineal ascendants or descendants must not have received financial support exceeding USD 60,000 from the company, its parent, or its subsidiaries during the last three fiscal years	○	○	○
3	Each independent director and their family must not have been employed as an executive officer of the company, its parent company, or its subsidiaries within the past three years	○	○	○
4	Each independent director must not serve as an advisor, consultant, or senior executive of the company	○	○	○
5	Each independent director must not be affiliated with any nonprofit organization (e.g., NGOs) that receives substantial donations from the company or maintains a business or partnership relationship with it	○	○	○
6	Each independent director must not have served as a partner or employee of the company's external audit firm during the past one year	○	○	○
7	Each independent director must not have a personal service contract with the company or its senior management	○	○	○
8	Each independent director must satisfy other independence criteria as defined by the Board and must not have any conflicting interests with the company	○	○	○

Board Efficiency

HD Hyundai Electric is committed to ensuring that its Board of Directors operates effectively and conducts in-depth deliberations and timely decision-making on major management issues. Over the past three years, the Board has maintained an average attendance rate of 95%, demonstrating strong engagement and accountability. The average tenure of executive directors is 5 years, while that of independent directors is 2 years. Pursuant to internal guidelines, the tenure of independent directors is limited to a maximum of 6 years. In addition, the number of external positions held by independent directors is limited to two, to ensure their full attention and commitment to company affairs. The Board holds regular meetings on a quarterly basis, and ad hoc meetings are convened as necessary to address urgent matters. The company also ensures that directors receive adequate advance notice of meetings, in accordance with internal Board regulations, enabling members to prepare thoroughly and participate in meaningful discussions.

Corporate Governance

Board Diversity

HD Hyundai Electric continuously strives to establish a Board of Directors with diverse backgrounds to ensure that key decisions reflect a balanced consideration of perspectives from shareholders, customers, and other stakeholders, thereby enhancing the Board's ability to deliberate from a broad and inclusive viewpoint. The company actively seeks to appoint directors from diverse backgrounds and considers diversity a core principle in the nomination process. No limitations or discrimination are imposed on the basis of nationality, age, gender, experience, background, race, or ethnicity. This approach enhances board representation and inclusivity while supporting the company's sustainable growth. As of 2024, the Board of Directors includes one female independent director, which underscores our commitment to improving gender diversity. We will continue to pursue a board composition that integrates diverse perspectives and expertise.

Principles for Ensuring Board Diversity

Nationality	Age	Gender	Experience and Background	Others
Identifying director candidates of diverse nationalities to establish a globally advanced governance system	Enhancing board efficiency by balancing experience with adaptability to changing business environments	Incorporating the principle of gender equality to reflect diverse perspectives in board operations	Avoiding bias toward specific backgrounds while considering the characteristics of Korean society	Considering additional diversity factors such as race, religion, and ethnicity

Board Operation

Committee under the Board Operation

To enhance board professionalism and operational efficiency, HD Hyundai Electric has established five committees under the Board of Directors: the Audit Committee, the Independent Director Recommendation Committee, the Internal Transactions Committee, the ESG Committee, and the Compensation Committee. These committees are supported by the Accounting Team and the Finance Team. To ensure the independent operation of the Audit Committee, an Internal Accounting Management Team operates as a directly affiliated unit. The Board is composed of experts in fields such as law, accounting and finance, and labor sociology. Of the five board members, three are independent directors, ensuring objective and independent decision-making. All independent directors meet the qualifications outlined in the Commercial Act and are free from special interests with major shareholders, management, or affiliates. Additionally, all directors of HD Hyundai Electric strictly comply with relevant regulations including the Commercial Act and the Monopoly Regulation and Fair Trade Act, preventing conflicts of interest such as self-dealing, misappropriation of corporate opportunities, and large-scale internal transactions. This contributes to a transparent and ethical governance environment.

Board Structure



Corporate Governance

Independent Director Recommendation Committee

Hyundai Electric operates the Independent Director Recommendation Committee to enhance the independence and expertise of its Board of Directors. When the appointment of an independent director is required, the committee deliberates and resolves matters related to the selection of candidates to be recommended to the Board. The committee convenes at least once a year to review and assess candidates' qualifications and recommends eligible nominees for approval at the General Meeting of Shareholders through a fair and transparent process. To ensure independence and fairness, the committee is chaired by Independent Director Han Chan-sik and is composed of four members, of which three (75%) are independent directors, thereby securing an independent decision-making structure. Through this governance mechanism, HD Hyundai Electric aims to systematically verify the qualifications and independence of candidates and establish a trustworthy and transparent board structure.

Appointment Process for Independent Directors



Audit Committee

HD Hyundai Electric maintains an Audit Committee as its internal audit body to monitor business activities and financial status, and to supervise and provide oversight of controlling shareholders and management, thereby ensuring transparency and sound corporate governance. The committee is composed entirely of three independent directors to guarantee independence. It holds authority to audit accounting and business operations, request reports from directors, or investigate company assets directly if necessary. The committee also fulfills responsibilities stipulated in the Articles of Incorporation and delegated by the Board. In accordance with the Commercial Act and its Enforcement Decree, the committee includes at least one member with professional experience in accounting or finance, ensuring both expertise and effectiveness in audits. HD Hyundai Electric continuously strengthens its internal control system centered on the Audit Committee and promotes transparent corporate management.

Internal Trade Committee

HD Hyundai Electric operates the Internal Trade Committee, led by independent directors, to enhance transparency and fairness in transactions with affiliated companies. Of the four committee members, three are independent directors, and the chairperson is also an independent director, ensuring an independent decision-making structure. A member with expertise in accounting is included to enable rigorous review of potential conflict-of-interest transactions from a financial perspective. The committee establishes policies on transactions with affiliates and deliberates and approves matters delegated by the Board in accordance with laws and internal regulations. HD Hyundai Electric continues to foster a culture of fair internal trading and aims to protect the rights of minority shareholders and prevent conflicts of interest.

Compensation Committee

In February 2024, HD Hyundai Electric established the Compensation Committee to enhance transparency and objectivity in determining remuneration for directors and executives. The committee deliberates and decides on the remuneration ceiling for registered directors, as well as the standards and procedures for remuneration payment, which are submitted to the General Meeting of Shareholders. Comprising only independent directors (3 members), the committee ensures a high degree of independence in decision-making. Through the Compensation Committee, HD Hyundai Electric promotes a transparent and fair remuneration system and supports a performance-based compensation culture with enhanced accountability.

ESG Committee

HD Hyundai Electric operates the ESG Committee within the Board to embed and strengthen ESG management, with the goal of enhancing corporate and shareholder value. The committee deliberates and resolves key matters related to ESG strategy formulation and implementation, corporate social responsibility performance, and initiatives for building ESG capabilities. The ESG Committee comprises one executive director and three independent directors, with independent directors forming the majority, thereby ensuring independence and objectivity in decision-making. HD Hyundai Electric is committed to reinforcing its sustainable management system through the ESG Committee and to building trust with stakeholders.

Corporate Governance

Board Subcommittees – Key Activities and Resolutions¹⁾

Committee	Date	Type	Key Agenda Items	Attendance Rate	Approval Rate
Independent Director Recommendation Committee	2024. 02.22	Resolution	Approval of recommended candidates for independent director	100%	100%
	2024. 02.02	Resolution	Approval of the 2024 ESG Action Plan	100%	100%
ESG Committee	2024. 04.23	Report	ESG materiality assessment results and key action updates	100%	-
	2024. 12.16	Resolution	Approval of the 2025 ESG Action Plan	100%	100%
Compensation Committee	2024. 02.22	Resolution	Appointment of the Chair of the Compensation Committee	100%	100%
		Resolution	Establishment of the Executive Remuneration Policy	100%	100%
		Resolution	Approval of the remuneration cap for registered directors for the 7th General Meeting of Shareholders	100%	100%
		Resolution	Approval of documentation for appointment of external auditor	100%	100%
Audit Committee	2024. 02.22	Resolution	Pre-approval of permissible non-audit services by external auditor	100%	100%
	2024. 02.22	Resolution	Approval of the 2023 internal accounting management system evaluation report	100%	100%
	2024. 03.26	Resolution	Appointment of Chair of the Audit Committee	100%	100%
	2024. 04.23	Resolution	Revision of internal accounting management regulations	100%	100%

1) The table includes only the key agenda items addressed by each committee

Board Evaluation

HD Hyundai Electric has introduced a Board Evaluation System to assess the appropriateness of board composition and to promote more efficient board operations. The evaluation consists of 35 questions across six categories, including board roles and responsibilities, structure, operations, evaluation feedback, and committee-specific assessments. All board members participate in the evaluation annually through a self-assessment process. According to the 2024 evaluation results, the composition of the Board of Directors was deemed appropriate, and the board was found to be fulfilling its roles and responsibilities faithfully. HD Hyundai Electric will continue to improve the quality of its board operations through regular assessments going forward.

Independent Director Training

HD Hyundai Electric operates a structured training program to ensure that independent directors can effectively perform their duties. In 2024, the company conducted in-house training to share the requirements of external ESG evaluators related to the ESG Committee, as well as the company's current ESG practices. The training also included benchmarking of best practices from leading ESG companies in Korea, with the aim of enhancing the Committee's analytical capabilities and enabling deeper discussions on ESG-related issues, thereby strengthening the professionalism and effectiveness of the Committee. Additionally, training was provided to the Audit Committee through an external professional firm, Deloitte Anjin. This session covered key topics including the role of the Audit Committee, recent supervisory trends from financial authorities, AI transformation, and global economic outlook in light of emerging industrial trends.

Training Program Overview

Training Program	Description	Participants
ESG training for independent directors	In February 2024, to strengthen the Board's ESG competencies, ESG-related training was provided to independent directors. The training covered external stakeholder expectations regarding the ESG Committee and benchmarking of best practices, thereby enhancing the Board's understanding of ESG.	Executive directors and independent directors

Corporate Governance

Board Compensation

HD Hyundai Electric adheres to the principle of reasonable, performance-based compensation for directors, with a strong emphasis on accountability. Compensation is paid within the limits approved by the General Meeting of Shareholders and is determined based on the director’s performance and level of responsibility. Compensation for executive directors consists of base salary, performance-based bonus, and retirement benefits. The base salary is determined by factors such as rank, position, expertise, assigned responsibilities, and contribution to the company. Performance bonuses are awarded based on the company’s performance, internal and external business environment, and the director’s overall contribution. Retirement benefits are calculated based on tenure and retirement conditions.

Compensation is determined reasonably through internal standards and external market comparisons as described above. For independent directors, compensation is paid at a fixed level based on the importance of their role and in reference to similar external cases. In principle, 100% of role-based allowance is paid, and performance-based bonuses are not provided, thereby ensuring the independence of independent directors. This approach enables independent directors to contribute to the company’s long-term value from a neutral position. HD Hyundai Electric prioritizes shareholder interests in the compensation process and follows a transparent and fair procedure that reflects market standards.

Criteria for Director Compensation

Category			Description
Executive Director	Base pay		Salary paid based on title or rank
	Base salary	Position-based pay	Salary determined by position and responsibilities
	Performance -based bonus		Variable compensation determined by both quantitative indicators (e.g. organizational and individual performance, target achievement rates) and qualitative indicators (e.g. leadership and contribution)
Independent Director	Position allowance		Compensation paid in accordance with responsibilities as an independent director

Performance Evaluation and Compensation for Executives

HD Hyundai Electric evaluates executive performance using both quantitative indicators—such as revenue, order intake, and operating profit—and qualitative factors, including leadership, professionalism, and accountability. The company also establishes company-wide and executive-specific ESG KPIs, and regularly monitors progress toward these goals for the CEO and other executives.

Executive compensation consists of performance-based bonuses and long-term incentives. The performance-based bonus is paid at the beginning of the following year and reflects current-year achievements in financial and qualitative metrics. To prevent short-term decision-making and to promote long-term value creation, HD Hyundai Electric introduced a long-term incentive plan at the end of 2023. This includes a deferral period (minimum of three years), after which final payouts are determined based on performance indicators such as organizational evaluation and net income. Independent directors and audit committee members are paid fixed compensation without performance-based components, to ensure their independence.

Board Composition

Category		Unit	2022	2023	2024
Total number of directors		persons	5	5	5
Ratio of independent directors	Percentage of independent directors	%	60	60	60
	Number of independent directors	persons	3	3	3
	Number of executive directors	persons	2	2	2
	Number of non-executive directors	persons	0	0	0
	Target ratio of independent directors	%	50	50	50

Board Diversity

Category		Unit	2022	2023	2024
Concurrent role restriction (independent directors)	Number of independent directors limited to four or fewer concurrent positions	persons	3	3	3
	Maximum number of concurrent roles allowed per director	positions	2	2	2
Average tenure of directors	Average tenure of directors	years	2.4	2.2	3.2
	Total tenure of all directors	years	12	11	16
Number of industry experts	Number of independent directors with industry experience	persons	0	0	0

Female Directors

Category	Unit	2022	2023	2024
Number of female directors	persons	1	1	1
Percentage of female directors	%	20	20	20

Corporate Governance

Board Operations

Category	Unit	2022	2023	2024
Average attendance rate	%	90.0	97.1	97.1
Total number of directors required to attend per board meeting	persons	40	35	35
Total number of directors actually attending per board meeting	persons	36	34	34
Minimum attendance rate required	%	50	50	50

Board Committees

	Category	Unit	2022	2023	2024
Independent Director Recommendation Committee	Number of independent directors	persons	3	3	3
	Total members	persons	4	4	4
Audit Committee	Number of independent directors	persons	3	3	3
	Total members	persons	3	3	3
	Members meeting legal qualifications as accounting or financial experts	persons	1	1	1
Compensation Committee	Number of independent directors	persons	-	-	3
	Total members	persons	-	-	3

Compensation

Category	Unit	2022	2023	2024
Total CEO performance-based compensation	KRW million	306	490	473
Present value of accumulated retirement benefits for the CEO	KRW million	550	729	961
CEO total compensation vs. Average employee compensation	times	10.2	10.5	9.5
Average total CEO compensation	KRW million	969	1,152	1,207

Shareholding¹⁾

Category		Unit	2022	2023	2024
Shareholding	CEO shareholding to base salary ratio	times	0.32	0.62	2.6
	Number of shares held by CEO	shares	5,000	5,000	5,000
	Year-end share price	KRW	42,500	82,200	382,000
	CEO base salary	KRW million	663	663	734
	Required shareholding ratio (to CEO base salary)	times	0	0	0
Government shareholding	Combined shareholding ratio of government agencies and national pension funds (≥5%)	%	12.38	12.46	7.67
Founder and family shareholding	Combined shareholding ratio of founder and family members (≥5%)	%	11.9	11.9	12.2

1) Keum Seok-ho, a non-standing executive director affiliated with HD Hyundai, does not receive separate compensation from the company.

Revenue

Category	Unit	2022	2023	2024
Consolidated revenue	KRW million	2,104,499	2,702,799	3,322,349
Separate revenue	KRW million	1,829,775	2,293,237	2,993,583

Shareholder Value

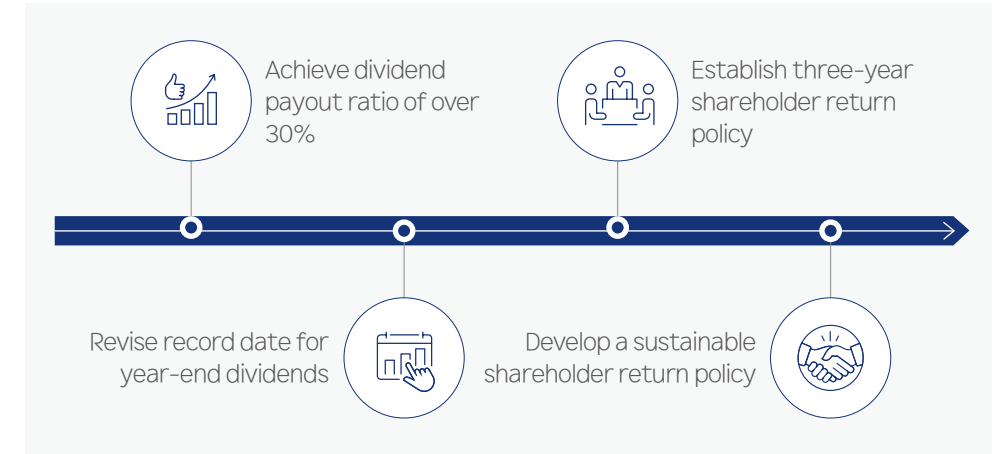
Shareholder Return Policy

As part of its commitment to enhancing shareholder rights and interests, HD Hyundai Electric has established and implemented a shareholder return policy that includes dividend payouts and a mid- to long-term return plan. The company has publicly announced a base dividend policy of maintaining a dividend payout ratio of at least 30% of separate net income, as defined by the separate income statement. In line with this policy, profits are returned to shareholders following resolutions by the Board of Directors and approval by the General Meeting of Shareholders.

Dividends—either in cash or stock—are paid within the limits of distributable income, taking into consideration the company’s earnings, investment plans for sustainable growth, and capital structure. In 2024, HD Hyundai Electric exceeded its target payout ratio by paying KRW 1,100 per share as a third-quarter interim dividend and KRW 4,250 per share as a year-end dividend, achieving a final payout ratio of approximately 40%. To improve dividend predictability, the company revised the record date for year-end dividends to occur after the dividend resolution. Additionally, HD Hyundai Electric plans to announce a three-year shareholder return policy that reflects mid- to long-term performance expectations and industry outlook.

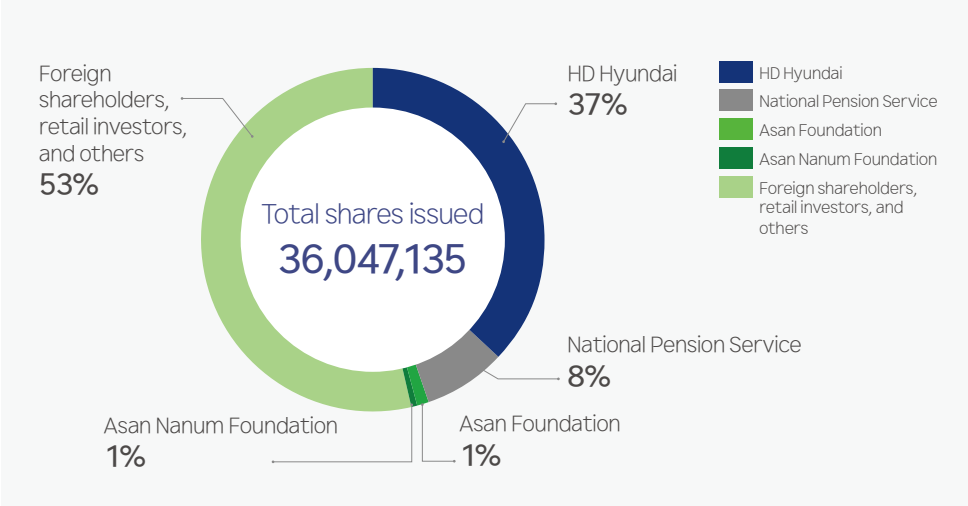
The company also continues to explore various ways to enhance shareholder value, including the potential repurchase of treasury shares. While no specific buyback plan has been finalized, any developments will be disclosed promptly in accordance with applicable regulations.

Strategic Initiatives to Enhance Shareholder Value



Shareholder Value

Shareholder Composition



Shareholding Structure

* As of March 31, 2025

Category	Number of Shares Held	Ownership (%)
HD Hyundai Co., Ltd.	13,352,664	37.04
National Pension Service	2,894,593	8.03
Asan Foundation	395,236	1.1
Asan Nanum Foundation	203,872	0.57
Foreign shareholders, retail investors, and others	19,200,770	53.26
Total Shares Issued	36,047,135	100

Executive and Director Shareholding

* As of March 31, 2025

Category	Number of Shares Held	Ownership (%)
Total	0	-
Executive Director	Kim Youngki (CEO)	0
	Keum Seok-ho	0
	Park Soo-hwan	0
Independent Director	Jeon Soon-ok	0
	Han Chan-sik	0

Shareholder Rights Protection

HD Hyundai Electric has implemented a proxy voting system to ensure that shareholder opinions are actively reflected in the General Meeting of Shareholders (GMS), and has clearly stipulated the relevant regulations in its Articles of Incorporation to establish an institutional foundation.

In recognition of the importance of timely and sufficient information for shareholder decision-making, the company publishes its GMS notice four weeks in advance, exceeding the two-week minimum required under the Commercial Act. This ensures shareholders have adequate time to review the agenda, venue, and other key details in depth before exercising their voting rights. Matters that may have a significant impact on shareholder rights—such as mergers, business transfers, or corporate splits—are also explicitly listed as items requiring shareholder resolutions under the Articles of Incorporation. Additionally, HD Hyundai Electric adopts practical measures to protect dissenting and minority shareholders when such issues arise. To further strengthen minority shareholder protections, the company operates an electronic voting system, enabling more convenient and equitable participation by all shareholders in corporate decision-making.

Shareholder Value

Participation in General Meeting of Shareholders (GMS)

HD Hyundai Electric actively practices shareholder-friendly management to protect shareholder rights and encourage participation. To enable shareholders to exercise their voting rights even without attending the GMS in person, the company has adopted an electronic voting system, pursuant to Article 368-4 of the Korean Commercial Act, providing a more accessible and convenient voting environment. Additionally, the company operates a proxy solicitation system to support shareholders in expressing their opinions through various means. Notices of the GMS, including agenda items, are sent via mail or electronic documents four weeks prior to the meeting—earlier than the two-week statutory requirement—to ensure that shareholders have ample time to review the materials and exercise their rights in an informed manner. HD Hyundai Electric is committed to building transparent and trustworthy communication with its shareholders and will continue to promote responsible governance that contributes to long-term value creation for all stakeholders.

GMS Notice and Meeting Dates (3-Year Overview)

Year	Notice Date	Meeting Date
2025	2025.02.24	2025.03.25
2024	2024.02.26	2024.03.26
2023	2023.02.21	2023.03.22

8th Regular General Meeting of Shareholders

	Agenda No.		Resolution
Approval of Financial Statements	Agenda 1	Approval of the 8th fiscal year financial statements	Approved as proposed
Director Appointment	Agenda 2	Appointment of Directors	Approved as proposed
Audit Committee Member Appointment	Agenda 3	Appointment of Audit Committee Member	Approved as proposed
Director Compensation Limit	Agenda 4	Approval of Compensation Limit for Directors	Approved as proposed

Award for Excellence in Corporate Value Enhancement

HD Hyundai Electric has placed shareholder value creation at the core of its business strategy, making continuous efforts to strengthen the foundation for sustainable growth. As a result of these initiatives, the company was honored with the Deputy Prime Minister’s Award, the highest recognition in the Value-up Excellence Program, jointly led by the Korea Exchange and related authorities. The Value-up Disclosure Program, launched in May 2024, evaluates listed companies on the KOSPI and KOSDAQ that disclose corporate value enhancement plans. The program assesses performance and implementation through a three-stage process involving experts from the Korea Exchange, Financial Services Commission, and investment industry.

The evaluation includes:

- Quantitative indicators such as Total Shareholder Return (TSR), Return on Equity (ROE), and Price-to-Book Ratio (PBR),
- Qualitative assessment of guideline implementation,
- And a comprehensive performance review.

In its corporate value enhancement plan disclosed in December 2024, HD Hyundai Electric committed to:

- Achieving a dividend payout ratio of 30%,
- Reaching ROE of at least 28%,
- And improving compliance with core governance indicators to 93% by 2027.

The company is systematically building the necessary foundations to execute these goals and remains dedicated to creating long-term value for shareholders. As a responsible and sustainable business, HD Hyundai Electric will continue to grow together with its shareholders by maximizing value through sustainable management.



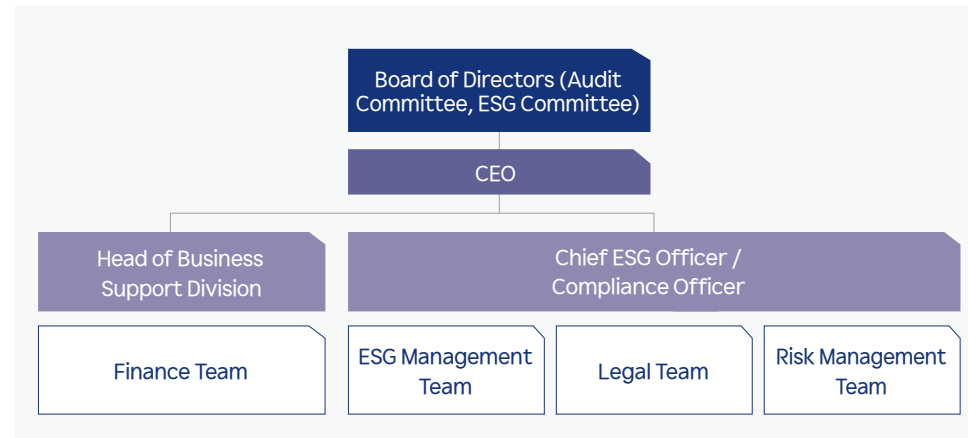
Corporate Value Enhancement Awards Ceremony

Risk Management

Risk Management Governance

The Board of Directors of HD Hyundai Electric holds the ultimate responsibility for establishing and overseeing the company's risk management framework. The board regularly reviews the company's risk exposure levels and incorporates them into key management decisions to ensure effective control. Financial risks are monitored by the Audit Committee, which evaluates the adequacy of the risk control system and supervises management's compliance with related procedures. The internal audit function supports the committee by conducting regular or ad hoc reviews of risk control processes and reporting the results to the Audit Committee to strengthen oversight. Non-financial risks are overseen by the ESG Committee, which supervises key risk areas and implementation plans. The company has appointed a Chief ESG Officer and a Compliance Officer to establish a robust response system for compliance and ethical risks.

Risk Management Structure



Enterprise Risk Management Framework

HD Hyundai Electric has established a comprehensive enterprise risk management (ERM) framework to proactively respond to uncertain and dynamic business conditions. The system is designed to control the potential impacts of external changes on the company's operations within acceptable levels. Each risk type is clearly defined and monitored through pre-set core risk indicators ("Factors"). When indicator values exceed defined thresholds, the responsible departments immediately initiate pre-established decision-making and response procedures, enabling prompt and proactive risk mitigation.

Financial Risks

Credit Risk

Credit risk refers to the potential for financial loss arising from counterparties failing to meet contractual obligations. This risk typically relates to trade receivables, other receivables, and investment assets. The company mitigates credit risk by assessing specific impairment losses on individually significant items and setting allowances for expected but unidentified credit losses. For investments, the company limits counterparties to institutions with high liquidity and strong credit ratings. In cases requiring guarantees, financial soundness and risk exposure are comprehensively assessed—especially for related parties—before proceeding.

Liquidity Risk

Liquidity risk refers to the possibility that the company may face financial difficulties if it fails to meet its payment obligations on financial liabilities as they mature. HD Hyundai Electric aims to maintain sufficient liquidity to settle liabilities smoothly without incurring losses or damaging its reputation. To date, the company has managed liquidity needs through operating cash flow, borrowings, and capital financing. Should operating cash generation prove insufficient, the company plans to secure funding through instruments such as loans and corporate bond issuance.

Market Risk

Market risk arises from fluctuations in market prices that affect the fair value or future cash flows of financial instruments. HD Hyundai Electric manages market risk within acceptable levels while pursuing profit optimization through activities such as purchasing and selling derivatives and issuing financial liabilities in line with internal policies. Exchange rate risk stems from transactions denominated in foreign currencies (e.g., USD, EUR, CNY, JPY). The company hedges currency risk through forward contracts and adjusts maturities or payment schedules as needed. Foreign currency assets and liabilities are managed through currency trading to correct short-term imbalances based on exchange rate movements. In addition, the company manages price volatility risks related to its holdings of financial instruments measured at fair value through other comprehensive income (FVOCI).

Risk Management

Non-Financial Risks

Climate Change Risk

Climate change risk refers to the potential negative impacts arising from climate-related factors that may affect HD Hyundai Electric’s business operations and asset values. Recognizing that climate-related risks can have a material effect on the company’s performance and long-term sustainability, HD Hyundai Electric is implementing key strategies to mitigate such risks. The company actively monitors global trends in climate-related regulations and policies, including greenhouse gas reduction targets, carbon trading schemes, and energy transition initiatives. Quantitative analysis is conducted on how both transition risks and physical risks could affect the company’s asset values. In addition, climate scenario analysis is used to identify potential risks in advance and develop appropriate response strategies.

Potential Risks

Category	Description	Impact	Response Measures
Export Risk Due to Changes in U.S. Tariff Policies	The imposition of anti-dumping duties and expansion of trade restrictions by the United States may negatively impact HD Hyundai Electric’s export competitiveness in the U.S. market. In particular, the potential for escalating retaliatory tariffs and the intensification of anti-dumping investigations are key factors increasing trade barriers for Korean-made power equipment. Recently, the U.S. Department of Commerce issued its final 2024 anti-dumping determination on Korean transformers. While HD Hyundai Electric was excluded from the imposition of duties (0%), some importers were subject to anti-dumping tariffs of up to 16.87%.	The U.S. power transformer market remains heavily dependent on imports, and demand is expected to continue growing due to the expansion of data centers and renewable energy infrastructure. As a result, even if tariffs are imposed, the likelihood of a sharp decline in imports or order volumes is considered low. In the final 2024 anti-dumping determination, HD Hyundai Electric was excluded from duty imposition (0%). As of May 2025, mutual tariff policies have also been temporarily suspended for 90 days, and only the general tariff rate of 10% is being applied. However, since anti-dumping investigations are conducted annually and trade policies are subject to shifts based on political and economic developments, there remains a possibility that the company could be included in future duty impositions.	[Response to Tariff Imposition] Expansion of the U.S. production facility in Alabama : Strengthening local responsiveness and mitigating tariff exposure Enhanced monitoring and stakeholder engagement on trade policy 1) Engage with local governments and relevant agencies to reduce trade risk and ensure export stability 2) Monitor trade policy developments and establish flexible response strategies
Export Risk Due to Strengthened Human Rights and Labor Regulations in the Supply Chain	HD Hyundai Electric exports power equipment and related solutions to numerous countries, and as a result, effective ESG risk management across the global supply chain has become a critical factor influencing the company’s credibility and market access. The European Union’s Corporate Sustainability Due Diligence Directive (CSDDD) officially came into force on July 25, 2024, and will be gradually applied to qualifying companies starting in 2028.	The CSDDD mandates large companies to conduct human rights and environmental due diligence across their entire supply chains. Non-compliance may result in civil liability, regulatory sanctions, or other enforcement actions. Accordingly, it is essential for companies to establish robust ESG management systems across the supply chain, including the identification, assessment, and mitigation of risks related to human rights and environmental practices. Insufficient response to such requirements may lead to penalties or reputational risks.	[Response to International Due Diligence Requirements] Establishment of ESG Risk Assessment and Management System for Partner Companies 1) Conduct ESG assessments, provide improvement guidance, and carry out follow-up inspections 2) Make ESG assessments mandatory for new partner registration; offer incentives such as additional scoring for high-performing partners Enhancement of Supply Chain Transparency and Respect for Human Rights 1) Improve openness and transparency of procurement procedures through G-HIPRO (Integrated Purchasing Information System) 2) Establish human rights policies and due diligence procedures 3) Take corrective action in response to any risks identified within the supply chain

Compliance Risk

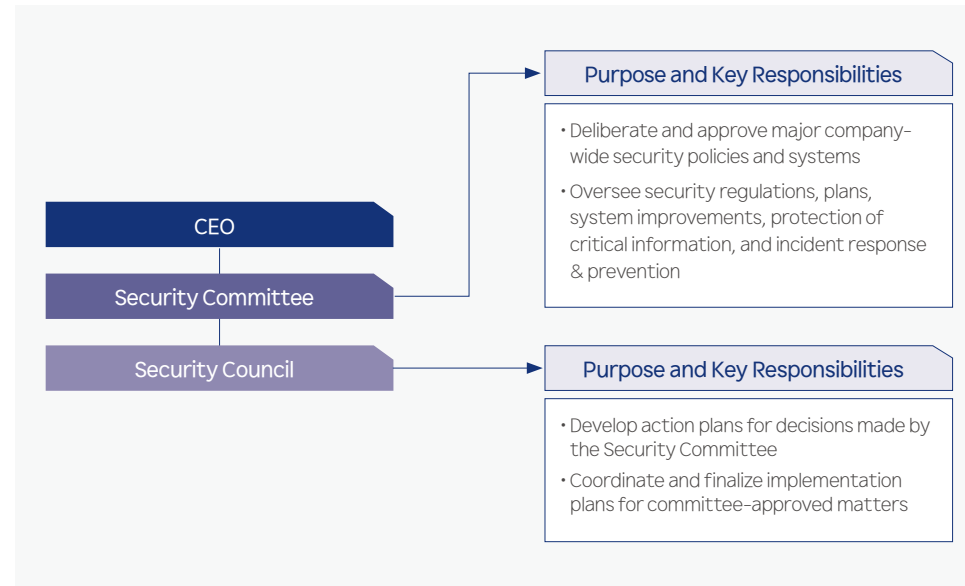
Compliance risk refers to the potential for legal, financial, or reputational damage caused by violations of domestic or international laws, regulations, or ethical standards. As HD Hyundai Electric continues to expand its global footprint, the company considers compliance with anti-corruption and fair trade laws in both Korea and other jurisdictions as a critical area of risk. To address this, legal reviews are strengthened during transaction and contract processes to identify any risk of legal or regulatory violations. Regular compliance training for all employees is also conducted to raise awareness and reduce the likelihood of breaches during day-to-day operations.

Information Security and Privacy

Information Security Governance

HD Hyundai Electric's information and personal data protection activities are overseen by the Chief Information Security Officer (CISO) and the Chief Privacy Officer (CPO). The CISO is responsible for establishing security strategies and implementing technical protection measures, while the CPO oversees administrative measures such as personal data governance and file management based on IT systems. Both officers are appointed based on their experience and qualifications in security and organizational management. Biannually, the company convenes a Security Council to review the company's security posture, conduct third-party vulnerability assessments including hacker threat analysis, and identify potential risks. In the event of a security incident, clearly defined response protocols and responsible personnel are activated. All employees are required to immediately report any incidents to the designated security manager and cooperate fully with mitigation efforts.

Information Security Governance Structure



Security Committee

As part of its commitment to proactive information security, HD Hyundai Electric operates a Security Committee to identify and mitigate vulnerabilities across departments such as design, general affairs, and IT. The committee reviews annual security performance, formulates action plans, and manages related policies systematically. Through these activities, the company continuously improves its information security framework and strengthens both technical and administrative controls to prevent personal data breaches.

Information Security Policy

To prevent the loss, theft, leakage, falsification, or damage of personal data, HD Hyundai Electric has established and operates the Personal Data Protection Regulation and the Security Management Regulation. These are continuously revised to reflect updates in applicable laws and regulatory requirements. The company's information protection framework covers not only data collected through communication networks but also physical records such as handwritten documents. Employees who repeatedly violate internal security standards are subject to disciplinary action in accordance with the Disciplinary Action Regulation. The same information protection standards apply to all stakeholders, including partner company employees, foreign workers, on-site contractors, and visitors—ensuring consistent and comprehensive information security across the organization. HD Hyundai Electric also discloses its Privacy Policy on the company website, clearly outlining the purpose of personal data collection, types of data collected, methods of collection, as well as how long the data is retained and used. These measures are intended to help customers fully understand the data handling process and feel confident sharing their information with trust.

Information Security and Privacy

Information Security Management System

HD Hyundai Electric continuously monitors and updates its internal information protection policies and regulations to reflect changes in internal and external environments. This ensures stable and effective management of its information security systems and processes. In 2020, the company acquired ISO/IEC 27001, the leading international standard for information security management systems (ISMS), and has since maintained and renewed the certification to demonstrate its commitment to recognized global security standards.



ISO 27001 Information Security Management Certification

Information Security Audits and Monitoring

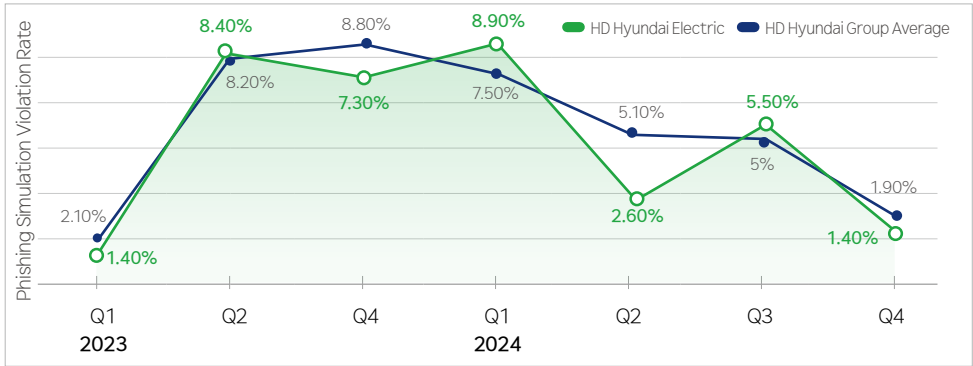
Security Assessment

To ensure the systematic operation of its information protection governance and policies, HD Hyundai Electric undergoes annual security assessments conducted at the HD Hyundai Group level. In 2024, the security audit was carried out by the Security Planning Team at HD Korea Shipbuilding & Offshore Engineering. The assessment helped the company thoroughly examine its security posture, reinforce consistency across the group, and enhance continuity in its information protection framework. Beyond technical inspection, the audit provided a strategic foundation for improving group-wide cybersecurity capabilities and contributed to the establishment of a more sustainable security management system.

Simulated Phishing Email Training

To proactively prevent malware intrusion and infection, HD Hyundai Electric conducts simulated phishing email training three to four times a year. The first round targets all employees across HD Hyundai Group. A second round of personalized retraining is provided to individuals who fail the initial test. Although the number of violations may fluctuate slightly year to year, the overall downward trend demonstrates the effectiveness of the program. This training framework has helped the company maintain the confidentiality, integrity, and availability of its critical information assets, ultimately enhancing business continuity and strengthening its security maturity.

Simulated Phishing Email Training Results



Information Security and Privacy

Preventive Information Security Activities

To strengthen company-wide cybersecurity capabilities, HD Hyundai Electric operates a structured security training program under the guidance of its security manager. This training is conducted regularly for all employees to raise awareness of personal data protection and to prevent misuse or leakage of personal information. When necessary—such as in cases of regulatory changes, the need for customized training by business unit, or notable violations of personal information laws—additional group or ad hoc training sessions are organized by the information security department and the designated privacy officers.

The company also supports its partner companies by offering regular security training or distributing educational materials, helping to improve their understanding and awareness of information security practices.

Information Security Pledge

To promote a culture of security and ensure compliance among employees, HD Hyundai Electric implements a company-wide Information Security Pledge Program. All employees, including new hires, are required to sign a pledge at the time of joining to confirm their understanding of the company’s information protection policies and responsibilities. Additionally, security-related laws, internal policies, real-world violations, and response measures are reviewed at least once annually through company-wide training programs.

Through this structured pledge initiative, HD Hyundai Electric continuously enhances its capacity to prevent and respond to security incidents—while reinforcing the protection of corporate information assets.

Information Security Training

Category	Unit	2022	2023	2024
Training hours per dedicated security staff	hours	4	4	4
Training hours per general employee	hours	4	4	4

Investment in Information Security

Category	Unit	2022	2023	2024
Proportion of investment in information security ¹⁾	%	2.5	2.3	5.0

1) Percentage of investment in information protection in total IT budget

Privacy & Data Breach Statistics

Category	Unit	2022	2023	2024
Number of violations of personal data protection laws/regulations	cases	0	0	0
Number of individuals affected by privacy violations (e.g., leakage, theft)	persons	0	0	0
Number of information security incidents	cases	0	0	0
Total number of individuals affected by information security incidents (employees and customers)	persons	0	0	0

Financial Information
GRI Standards Index
SASB Index
TCFD Index
UNGC Index
UN SDGs Index
External Assurance Statement
Greenhouse Gas (GHG) Emissions Verification Statement
Scope 3 Emissions Verification Statement
Memberships and Disclosures

APPENDIX

Financial Information	115
GRI Standards Index	116
SASB Index	120
TCFD Index	121
UNGC Index	122
UN SDGs Index	123
External Assurance Statement	124
Greenhouse Gas (GHG) Emissions Verification Statement	126
Scope 3 Emissions Verification Statement	127
Memberships and Disclosures	129



Financial Information

- GRI Standards Index
- SASB Index
- TCFD Index
- UNGC Index
- UN SDGs Index
- External Assurance Statement
- Greenhouse Gas (GHG) Emissions Verification Statement
- Scope 3 Emissions Verification Statement
- Memberships and Disclosures

Financial Information

Condensed Consolidated Statement of Financial Position

(Unit: KRW million)

Category	2022	2023	2024
Current assets	1,548,306	1,972,953	2,763,741
Cash and cash equivalents	172,686	176,098	569,772
Short-term financial assets	22,092	23,951	32,988
Trade and other receivables	506,399	659,957	832,343
Contract assets	170,224	220,678	170,882
Inventories	627,806	849,725	1,081,391
Others	49,099	42,544	76,365
Non-current assets	886,724	937,207	1,031,804
Long-term financial assets	4,935	4,382	4,754
Long-term trade and other receivables	5,069	12,336	7,207
Property, plant and equipment	536,868	624,253	730,080
Intangible assets	65,511	70,006	65,913
Others	274,342	226,230	223,850
Total assets	2,435,030	2,910,160	3,795,545
Current liabilities	1,411,145	1,497,429	2,001,079
Non-current liabilities	192,717	355,701	286,949
Total liabilities	1,603,861	1,853,130	2,288,028
Equity attributable to owners of the parent	822,580	1,048,143	1,501,787
Capital stock	180,236	180,236	180,236
Capital surplus	401,837	401,837	401,837
Capital adjustments	(15,241)	(15,241)	(15,241)
Accumulated other comprehensive income	83,844	84,690	119,079
Retained earnings	171,908	396,621	815,876
Non-controlling interests	8,589	8,887	5,730
Total equity	831,169	1,057,030	1,507,517

Condensed Consolidated Statement of Income

(Unit: KRW million)

Category	2022	2023	2024
Revenue	2,104,499	2,702,799	3,322,349
Operating profit	133,041	315,218	668,971
Net income	162,018	259,456	498,410
Attributable to owners of the parent	162,486	259,153	501,567
Attributable to non-controlling interests	(468)	303	(3,157)
Total comprehensive income	175,764	243,859	522,462
Attributable to owners of the parent	176,232	243,556	525,619
Attributable to non-controlling interests	(468)	303	(3,157)
Earnings per share attributable to owners of the parent	0.004514	0.0072	0.013935

- Financial Information
- » **GRI Standards Index**
- SASB Index
- TCFD Index
- UNGC Index
- UN SDGs Index
- External Assurance Statement
- Greenhouse Gas (GHG) Emissions Verification Statement
- Scope 3 Emissions Verification Statement
- Memberships and Disclosures

GRI Standards Index

GRI Reporting Reference	HD Hyundai Electric has prepared this sustainability report in accordance with the GRI Standards for the period from January 1, 2024 to December 31, 2024.
Applied GRI 1 Standard	GRI 1 : Foundation 2021

Universal Standards

Topic	No.	Disclosure	Reported Page
GRI 2 : General Disclosures 2021			
Organization and its reporting practices	2-1	Organizational details	6, 14
	2-2	Entities included in the organization's sustainability reporting	2
	2-3	Reporting period, frequency and contact point	2
	2-4	Restatements of information	2 *Footnotes provided for revised quantitative data
	2-5	External assurance	124-128
Activities and workers	2-6	Activities, value chain and other business relationships	6,8,13-14
	2-7	Employees	65
	2-8	Workers who are not employees	65
Governance	2-9	Governance structure and composition	99
	2-10	Nomination and selection of the highest governance body	102
	2-11	Chair of the highest governance body	99
	2-12	Role of the highest governance body in overseeing the management of impacts	16
	2-13	Delegation of responsibility for managing impacts	16
	2-14	Role of the highest governance body in sustainability reporting	16
	2-15	Conflicts of interest	100
	2-16	Communication of critical concerns	16,103
	2-17	Collective knowledge of the highest governance body	99, 103
	2-18	Evaluation of the performance of the highest governance body	103
	2-19	Remuneration policies	104
	2-20	Process to determine remuneration	104
	2-21	Ratio of annual total compensation	105

Topic	No.	Disclosure	Reported Page
GRI 2 : General Disclosures 2021			
Strategy, policies and practices	2-22	Statement on sustainable development strategy	5
	2-23	Policy commitments	17
	2-24	Embedding policy commitments	17, 21
	2-25	Processes to remediate negative impacts	51, 58, 92
	2-26	Mechanisms for seeking advice and raising concerns	59, 82, 100
	2-27	Compliance with laws and regulations	42, 98
	2-28	Membership associations	129
Stakeholder engagement	2-29	Approach to stakeholder engagement	22
	2-30	Collective bargaining agreements	60
GRI 3: Material Topics 2021			
Disclosure of material topics	3-1	Process to determine material topics	18
	3-2	List of material topics	19

Financial Information

» **GRI Standards Index**

SASB Index

TCFD Index

UNGC Index

UN SDGs Index

External Assurance Statement

Greenhouse Gas (GHG) Emissions
Verification Statement

Scope 3 Emissions Verification Statement

Memberships and Disclosures

GRI Standards Index

Topic Standards

Topic	No.	Disclosure	Reported Page
Material Topic 1: Development of Eco-friendly Products and Technologies			
GRI 3: Material Topics 2021	3-3	Management of Material Topics	20-21, 26-29
GRI 302: Energy	302-5	Reduction of the energy requirements of products and services	28, 31
Material Topic 2: Climate Change Response			
GRI 3: Material Topics 2021	3-3	Management of Material Topics	20-21, 30-38
GRI 201: Economic Performance	201-2	Financial implications and other risks and opportunities due to climate change	36-37
GRI 302: Energy	302-1	Energy consumption within the organization	32
	302-3	Energy intensity	32
	302-4	Reduction of energy consumption	32
	305-1	Direct (Scope 1) GHG emissions	38
GRI 305: Emissions	305-2	Energy indirect (Scope 2) GHG emissions	38
	305-3	Other indirect (Scope 3) GHG emissions	38
	305-4	GHG emissions intensity	38
	305-5	Reduction of GHG emissions	31
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	44

Topic	No.	Disclosure	Reported Page
Material Topic 3: Supply Chain			
GRI 3: Material Topics 2021	3-3	Management of Material Topics	20-21, 78-83
GRI 308: Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	81, 83
	308-2	Negative environmental impacts in the supply chain and actions taken	81
GRI 413: Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	89-92
	413-2	Operations with significant actual and potential negative impacts on local communities	92
GRI 414: Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	81, 83
	414-2	Negative social impacts in the supply chain and actions taken	82
Material Topic 4: Product Safety and Quality			
GRI 3: Material Topics 2021	3-3	Management of Material Topics	20-21, 85-87
GRI 416: Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	47, 85-87
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	0 cases
GRI 417: Marketing and Labeling	417-3	Incidents of non-compliance concerning marketing communications	0 cases

- Financial Information
- **GRI Standards Index**
- SASB Index
- TCFD Index
- UNGC Index
- UN SDGs Index
- External Assurance Statement
- Greenhouse Gas (GHG) Emissions Verification Statement
- Scope 3 Emissions Verification Statement
- Memberships and Disclosures

GRI Standards Index

Topic Standards

Topic	No.	Disclosure	Reported Page
Material Topic 5: Occupational Health and Safety			
GRI 3: Material Topics 2021	3-3	Management of Material Topics	20-21, 70-77
	403-1	Occupational health and safety management system	71
	403-2	Hazard identification, risk assessment, and incident investigation	72
	403-3	Occupational health services	76
GRI 403: Occupational Health and Safety	403-4	Worker participation, consultation, and communication on occupational health and safety	76
	403-5	Worker training on occupational health and safety	74
	403-6	Promotion of worker health	76
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	75-76
	403-8	Workers covered by an occupational health and safety management system	77
	403-9	Work-related injuries	77
	403-10	Work-related ill health	77
Related Topic 1. Employment and Occupational Benefits			
GRI 401: Employment	401-1	New employee hires and employee turnover	66-67
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	64
	401-3	Parental leave	69
GRI 404: Training and Education	404-1	Average hours of training per year per employee	68
	404-2	Programs for upgrading employee skills and transition assistance programs	62-63
	404-3	Percentage of employees receiving regular performance and career development reviews	64

Topic	No.	Disclosure	Reported Page
Related Topic 2. Ethics and Compliance			
GRI 205: Anti-corruption	205-1	Operations assessed for risks related to corruption	97
	205-2	Communication and training about anti-corruption policies and procedures	96
	205-3	Confirmed incidents of corruption and actions taken	98
GRI 206: Anti-competitive Behavior	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	98
Related Topic 3. Labor-Management Relations			
GRI 402: Labor/Management Relations	402-1	Minimum notice periods regarding operational changes	65
GRI 407: Freedom of Association and Collective Bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	60, 65
Related Topic 4. Human Rights and Diversity			
GRI 405: Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	66, 99
GRI 406: Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	59

GRI Standards Index

Topic Standards

Topic	No.	Disclosure	Reported Page
Related Topic 5. Biodiversity			
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	49
	304-2	Significant impacts of activities, products, and services on biodiversity	50-51
	304-3	Habitats protected or restored	53
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	49
Related Topic 6. Water Management			
GRI 303: Water	303-1	Interactions with water as a shared resource	44
	303-2	Management of water discharge-related impacts	44
	303-3	Water withdrawal	44
	303-4	Water discharge	44
	303-5	Water consumption	44
Related Topic 7. Waste Management			
GRI 306 : Waste	306-1	Waste generation and significant waste-related impacts	46
	306-2	Management of significant waste-related impacts	46
	306-3	Waste generated	46
	306-4	Waste diverted from disposal (e.g., reuse, recycling, etc.)	46
	306-5	Waste directed to disposal (e.g., incineration, landfill, etc.)	46
Related Topic 8. Information Security			
GRI 418: Private Information	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	113

Topic	No.	Disclosure	Reported Page
Other Topics			
GRI 201: Economic Performance	201-1	Direct economic value generated and distributed (EVG&D)	115
	201-2	Financial implications and other risks and opportunities due to climate change	36-37
	201-3	Defined benefit plan obligations and other retirement plans	63
	201-4	Financial assistance received from government	Annual Report p.41 (Key Contracts and R&D Activities – Government Subsidies)
GRI 202: Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Wages comply with minimum legal standards at domestic and overseas sites and are paid regularly on scheduled dates.
GRI 203: Indirect Economic Impacts	203-1	Infrastructure investments and services supported	89-91
GRI 204: Procurement Practices	204-1	Proportion of spending on local suppliers	89
GRI 301: Materials	301-1	Materials used by weight or volume	84

- Financial Information
- GRI Standards Index
- SASB Index**
- TCFD Index
- UNGC Index
- UN SDGs Index
- External Assurance Statement
- Greenhouse Gas (GHG) Emissions Verification Statement
- Scope 3 Emissions Verification Statement
- Memberships and Disclosures

SASB Index

Electrical & Electronic Equipment Sustainability Accounting Standard

Category	Code	Metric	Unit	2024
Energy Management	RT-EE-130a.1	Total energy consumed	TJ	816.675
		Percentage grid electricity	%	80.25
		Percentage renewable	%	3.563
Hazardous Waste Management	RT-EE-150a.1	Amount of hazardous waste generated	ton	398
		Percentage of hazardous waste recycled	%	63.56
Product Safety	RT-EE-150a.2	Number and aggregate quantity of reportable spills	count, kg	Hazardous chemicals preemptively blocked through chemical risk assessment
	RT-EE-250a.1	Number of recalls issued and total units recalled	count	None
Product Lifecycle Management	RT-EE-250a.2	Total monetary losses as a result of legal proceedings associated with product safety	KRW	None
	RT-EE-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	%	Not applicable
	RT-EE-410a.2	Percentage of eligible products by revenue that meet ENERGY STAR® criteria	%	Not applicable
Materials Sourcing	RT-EE-410a.3	Revenue from renewable energy-related and energy-efficient products	%	4.628
	RT-EE-440a.1	Description of the management of risks associated with the use of critical materials	N/A	p.84
Business Ethics	RT-EE-510a.1	Description of policies and practices for preventing corruption and bribery	N/A	p.95-97
		Description of policies and practices for anti-competitive behavior	N/A	p.95-97
	RT-EE-510a.2	Total monetary losses from legal proceedings associated with bribery or corruption	KRW	0
	RT-EE-510a.3	Total monetary losses from legal proceedings associated with bribery or corruption	KRW	0
		Total monetary losses from legal proceedings associated with anti-competitive behavior regulations	KRW	0
Activity Metrics	RT-EE-000a.A	Number of units produced by product category	-	Power transformers: 330 units, High-voltage circuit breaker: 1,222 Bay
		Number of employees	persons	2,189

- Financial Information
- GRI Standards Index
- SASB Index
- ▶ **TCFD Index**
- UNGC Index
- UN SDGs Index
- External Assurance Statement
- Greenhouse Gas (GHG) Emissions Verification Statement
- Scope 3 Emissions Verification Statement
- Memberships and Disclosures

TCFD Index

Category	Disclosure	Reported Page
Governance	A. Describe the board’s oversight of climate-related risks and opportunities	30
	B. Describe management’s role in assessing and managing climate-related risks and opportunities	30
Strategy	A. Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	35-37
	B. Describe the impact of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning	36-37
	C. Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	34-38
Risk Management	A. Describe the organization’s processes for identifying and assessing climate-related risks	33-34
	B. Describe the organization’s processes for managing climate-related risks	33
	C. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization’s overall risk management	38
Metrics and Targets	A. Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	36-37
	B. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	38
	C. Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	31-32

UNGC Index

The UN Global Compact is a corporate sustainability initiative that promotes ten principles in the areas of human rights, labor, environment, and anti-corruption. HD Hyundai Electric joined the UNGC in September 2021 and continues to uphold these principles through its responsible business practices.

Category	Principle	HD Hyundai Electric's Key Activities and Achievements	Reported Page
Human Rights	1. Businesses should support and respect the protection of internationally proclaimed human rights.	- Established human rights and due diligence policy - Operated grievance process - Conducted human rights impact assessments - Operated Human Rights Committee	56-59
	2. Make sure that they are not complicit in human rights abuses.		
Labour	3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	- Compliance with labor laws in Korea and abroad - Ensured union activity and collective bargaining - Operated labor-management council - Implemented anti-discrimination and anti-harassment policies - Certified as a family-friendly company	60, 65
	4. The elimination of all forms of forced and compulsory labour.		
	5. The effective abolition of child labour.		
	6. The elimination of discrimination in respect of employment and occupation.		
Environment	7. Businesses should support a precautionary approach to environmental challenges.	- Developed roadmap for carbon neutrality and RE100 - Disclosed environmental targets - Acquired green technology and product certifications - Disclosed environmental information - Obtained and maintained ISO 14001 certification	31, 40, 43-44
	8. Undertake initiatives to promote greater environmental responsibility.		
	9. Encourage the development and diffusion of environmentally friendly technologies.		
Anti-Corruption	10. Businesses should work against corruption in all its forms, including extortion and bribery.	- Established Ethics Charter and Code of Ethics - Operated Fair Trade Compliance Program - Conducted ethics and compliance training - Operated whistleblowing process	94-98

UN SDGS Index

The United Nations Sustainable Development Goals (UN SDGs) represent a set of shared global objectives across a wide range of areas including poverty, education, economic development, and the environment. HD Hyundai Electric is committed to aligning its sustainability management practices with these goals and contributing to their achievement.

Key SDG Goal	HD Hyundai Electric's Key Activities and Achievements	Reported Page
Goal 1. End poverty in all its forms everywhere	• Provided heating oil and living facility support for vulnerable groups • Purchased products/services from certified workplaces for individuals with disabilities	90
Goal 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture	• Donated rice to welfare centers • Provided food aid to vulnerable groups	90
Goal 3. Ensure healthy lives and promote well-being for all at all ages	• Supported blood donation campaigns through employee participation	90
Goal 4. Ensure inclusive and equitable quality education for all	• Provided non-discriminatory access to job-related training and development	62-63
Goal 5. Achieve gender equality and empower all women and girls	• Supported employees during maternity and childcare periods • Established anti-discrimination/harassment policies and grievance mechanisms	59, 64
Goal 6. Ensure availability and sustainable management of water and sanitation	• Monitored water-related indicators	43-44
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy	• Contributed to improved grid stability and energy efficiency through business solutions	28
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work	• Supported non-regular and vulnerable workers • Conducted health and safety win-win partnership program between large, medium, and small enterprises • Prohibited child and forced labor • Guaranteed labor rights	56, 73

Key SDG Goal	HD Hyundai Electric's Key Activities and Achievements	Reported Page
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	• Strengthened technology development capabilities • Upgraded outdated infrastructure and equipment	42
Goal 10. Reduce inequality within and among countries	• Reinforced policies on non-discrimination and ethics	60, 94
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	• Donated to Heart of Alabama Food Bank	89
Goal 12. Ensure sustainable consumption and production patterns	• Used low-pollution insulating oil • Monitored waste recycling rates	45-46
Goal 13. Take urgent action to combat climate change and its impacts	• Developed roadmap for 2050 carbon neutrality and 2040 RE100 • Measured Scope 3 emissions	31-32
Goal 14. Conserve and sustainably use the oceans, seas and marine resources	• Removed invasive plant species near Tancheon Stream	91
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems	• Assessed biodiversity near sites • Engaged in flying squirrel habitat conservation	48-53
Goal 16. Promote peaceful and inclusive societies and access to justice for all	• Prohibited all forms of unethical behavior	94-95
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development	• Supported global initiatives and improved disclosure • Increased public-private cooperation	17

External Assurance Statement

Dear Stakeholders

Korean Foundation for Quality (hereinafter ‘KFQ’) has been engaged to independently verify the 2024 Sustainability Report (hereinafter ‘the Report’)²⁾ of HD HYUNDAI ELECTRIC. CO.,LTD.¹⁾ (hereinafter ‘the Company’). KFQ is responsible for providing an independent third-party verification opinion on the report based on the verification criteria and scope specified below. The responsibility for the preparation of this report lies with the Company’s management.

- 1) Organization Address (based on headquarters) : 477, Bundangsuseo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea
- 2) Data Collection Period : January 1, 2024 – December 31, 2024

Verification Purpose

The purpose of this verification is to ensure the reliability of the data and information stated in the Company’s report.

Verification Scope

1. Verification Boundary

- ESG management activities and performance : Focused on domestic business sites such as the head office and factories, and includes some data from overseas subsidiaries and other affiliated companies.
- Financial information including consolidated financial statements : Includes financial information for the head office and 11 subsidiaries.

2. Verification Items (Based on the GRI Standards 2021)

Category	GRI Standards	
Universal Standards	• 2-1 to 2-5 (The organization and its reporting practices)	• 2-22 to 2-28 (Strategy, policies, and practices)
	• 2-6 to 2-8 (Activities and workers)	• 2-29 to 2-30 (Stakeholder engagement)
	• 2-9 to 2-21 (Governance)	• 3-1 to 3-3 (Material Topics Disclosures)
Topic Standards*	• GRI 201 (Economic Performance)	• GRI 403 (Occupational Health and Safety)
	• GRI 302 (Energy)	• GRI 413 (Local Communities)
	• GRI 305 (Emissions)	• GRI 414 (Supplier Social Assessment)
	• GRI 308 (Supplier Environmental Assessment)	• GRI 416 (Customer Health and Safety)
		• GRI 417 (Marketing and Labeling)

* Topic Standards : Provisions Criteria for Material Issues

3. Excluded Items from Verification: The following items are not included within the scope of verification

- 1) Performance and reporting practices of subsidiaries, affiliates, partners, and third parties
- 2) Items related to other sustainability initiatives not based on the GRI Standards 2021, SASB, TCFD presented in the report
- 3) Other related information such as periodic disclosure reports and financial statements

Verification Criteria

This verification has been conducted based on [AA1000AS (v3)], [AA1000AP (2018)], and [Type 2 – Moderate]

Verification Method

The audit team reviewed relevant procedures, systems, and control mechanisms, along with available performance data, to verify the reliability of the report’s content based on the aforementioned criteria. The documents reviewed during the verification process are as follows:

- Non-financial Information : Data provided by the company, disclosed Business Reports, and information obtained from media and/or the internet.
- Financial Information : Data disclosed in the electronic disclosure system (dart.fss.or.kr) of the Financial Supervisory Service and data posted on the homepage.

(However, the contents of the above data are not included in the verification scope.)

The verification was conducted through document review, on-site visits, and interviews with the responsible personnel. The validity of the materiality assessment procedure in the Report, the selection of material issues considering stakeholders, the data collection, management, and report preparation procedures, as well as the accuracy of the descriptions, were evaluated through interviews with the responsible personnel. However, interviews with internal/external stakeholders were not conducted. Subsequently, it was confirmed that any errors, inappropriate information, or unclear expressions identified in the above steps were appropriately corrected before the publication of the Report.

Verification Limitations

This verification inherently contains limitations that may arise in the process of applying the criteria and methodology.

External Assurance Statement

Competency and Independence

The audit team for this verification was duly composed in accordance with KFQ's internal regulations. KFQ has no conflicts of interest that could compromise the independence and impartiality of the verification, apart from providing third-party verification services.

Verification Opinion

As a result of the verification, it is the opinion of KFQ that:

- 1) It has been confirmed that the Report was prepared in compliance with the four principles of AA1000AP (2018)
- 2) The report has been appropriately prepared in accordance with the applicable reporting standards, such as (GRI Standards (2021) - Accordance)
- 3) The data and information used for verification were limited to the provided materials and were found to be appropriate, with no significant errors or omissions that could affect the verification opinion.
- 4) Therefore, an "Unmodified Opinion" is provided for the company's 2024 Sustainability Report.

• Inclusivity

The company has appropriately defined stakeholder groups and communicates with them through tailored communication channels that consider the characteristics of each group. The audit team did not identify any missing key stakeholders in this process and confirmed that the company is making efforts to incorporate stakeholder feedback into its management strategy.

• Materiality

The company has identified material issues through an appropriate process and has thoroughly reviewed the relevant impacts to enhance the validity of its materiality assessment. The audit team confirmed that the identified material issues were given due emphasis in this report and that all material issues recognized during the materiality assessment process were reported without omission.

• Responsiveness

The company strives to respond promptly to stakeholders' requirements and key concerns. The audit team did not find any evidence indicating that the organization's response activities and performance regarding material issues were inappropriately reported.

• Impact

The company identifies and monitors the impact of stakeholder-related material issues across its business activities and reports the findings to the extent possible. The audit team did not find any evidence indicating that the impact of material issues was inappropriately measured or reported.

June 25, 2025

Ji Young Song

Ji Young Song

CEO, Korean Foundation for Quality



Financial Information

GRI Standards Index

SASB Index

TCFD Index

UNGC Index

UN SDGs Index

External Assurance Statement

▶ **Greenhouse Gas (GHG) Emissions Verification Statement**

Scope 3 Emissions Verification Statement

Memberships and Disclosures

Greenhouse Gas (GHG) Emissions Verification Statement

HD Hyundai Electric Co., Ltd.

Introduction

DNV Business Assurance Korea Ltd. ("DNV") was commissioned by HD Hyundai Electric Co., Ltd. (here after "Company" or "HD Hyundai Electric") to perform third party verification for the Company's Greenhouse Gas Statement. The Company is responsible for the preparation of the GHG statement on the basis set out within the guidelines on the operation of GHG emissions trading scheme (ETS) (Notification No. 2025-28), Korea Ministry of Environment) based on 'ISO 14064-1:2018'. The Company has full responsibility of the GHG statement. According to terms of contract, DNV expressly disclaims any liability or responsibility for any decisions, based upon the verification opinion.

Objective and Scope of Ver

The objective of the verification is to present an independent verification opinion on the company's GHG statement, and the scope of verification is as follows;

- Organizational Boundary: HD Hyundai Electric's domestic business sites in Korea
- Reporting Boundary: Scope 1 (Direct emissions), Scope 2 (Indirect emissions) (fugitive emissions from refrigerant are excluded)
- Reporting Period: 2024.01.01 ~ 2024.12.31

Verification Approach

The verification has been conducted in accordance with the verification principles and tasks outlined in the guidelines on the operation of GHG ETS (Notification No. 2024-169, Korea Ministry of Environment) based on 'ISO 14064-3:2019'. DNV planned and concluded our work so as to obtain all the information and explanations deemed necessary to provide us with sufficient evidence to provide a verification opinion with 5% materiality level. As part of the verification process, we have reviewed as follows;

- Adequacy of GHG data control, collection and emission calculation applied in GHG inventory report and report process

- The GHG inventory is based on measurements and has inherent limitations that may arise from the process of calculating, estimating, and finalizing the reported data.

Conclusions

Based on the verification conducted, the information related to the GHG statement has been properly calculated and reported.

- DNV represents "unmodified" opinion on Greenhouse Gas Emissions.

(Unit: ton CO₂eq)

Yr 2024	Direct emissions (Scope 1)	Indirect emissions (Scope 2)	Total emissions
HD HYUNDAI ELECTRIC	6,818	31,409	38,225

※ There is a difference between each emissions sum and total emissions as total emissions are sum up with each rounded business sites' emissions according to the related regulation.

June 19, 2025

Seoul, Republic of Korea



Lee, Jang Seop

Country Representative

DNV Business Assurance Korea Ltd.

Financial Information

GRI Standards Index

SASB Index

TCFD Index

UNGC Index

UN SDGs Index

External Assurance Statement

Greenhouse Gas (GHG) Emissions
Verification Statement

▶ **Scope 3 Emissions Verification Statement**

Memberships and Disclosures

Scope 3 Emissions Verification Statement

HD Hyundai Electric Co., Ltd.

Verification Target

Korean Foundation for Quality (hereinafter 'KFQ') has conducted a verification of Scope 3 Greenhouse Gas Emissions (hereinafter 'GHG emissions') of HD Hyundai Electric Co., Ltd.¹⁾ (hereinafter 'Company') for 2024. KFQ is responsible for providing an assurance statement on the GHG emissions based on the verification scope and criteria described below, while the responsibility for the claims made regarding the GHG emissions rests with the company.

1) Address (based on headquarters): 477, Bundangsuseo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea

Verification Purpose

The purpose is to provide an independent verification opinion on the company's Scope3 emissions.

Verification Scope

The verification covered eleven emission categories²⁾ selected by the company during 2024.

2) Category 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12

Verification Criteria

The following criteria and coefficients used by the company were applied.

• Criteria

- ISO14064-1:2018, ISO 14064-3:2019
- GHG Protocol Corporate Standard
- WBCSD/WRI, Corporate Value Chain (Scope 3) Accounting and Reporting Standard
- Rule for emission reporting and certification of greenhouse gas emission trading Scheme (Notification No. 2025-64 of Ministry of Environment)

• Coefficient

- Environmental Product Declaration evaluation coefficient (2021)
- GREET® 2024
- Emission Factors for Greenhouse Gas Inventories, USEPA (2024)

Level of Assurance

The verification has been conducted in accordance with the verification principles and standards of the 'ISO14064-3:2019' under the limited verification level.

Verification Limitation

GHG emissions verification involves inherent limitations that may arise depending on the organization's data characteristics, calculations and estimates, sampling method, and limited assurance level. Additionally, this verification does not include responsibility for the accuracy of the original data provided by the company.

Conclusion

Based on criteria and guidelines stated above, KFQ's verification opinion is as follows.

- 1) GHG emissions of the company for 2024 were properly calculated based on the materials provided, and no material errors or omissions that could affect the verification opinion were identified.
- 2) The criteria and process established by the company for calculating GHG emissions were transparently documented in the internal calculation process to prevent potential misunderstandings.
- 3) Accordingly, KFQ provides a verification opinion that is "Unmodified".

Appendix. Summary of Scope 3 GHG Emission Results

Financial Information

GRI Standards Index

SASB Index

TCFD Index

UNGC Index

UN SDGs Index

External Assurance Statement

Greenhouse Gas (GHG) Emissions
Verification Statement

▶ **Scope 3 Emissions Verification Statement**

Memberships and Disclosures

Scope 3 Emissions Verification Statement

Appendix. Summary of Scope 3 GHG Emission Results

Organization

HD Hyundai Electric Co., Ltd.

Emission calculation period

The emission calculation period is from January 1st to December 31st, 2024.

Company Scope 3 Emissions verification Results

(Unit: ton CO₂eq)

Category		Emissions
1	Purchased goods and services	327,956
2	Capital goods	13,068
3	Fuel and energy-related activities not included in Scope 1+2	5,712
4	Upstream transportation and distribution	83,146
5	Waste generated in operations	2,125
6	Business travel	2,235
7	Employee commuting	2,346
8	Upstream leased assets	204
9	Downstream transportation and distribution	11,865
11	Use of sold products	275,912,433
12	End of life treatment of sold products	134,118
Total		276,495,208

June 19, 2025

Ji Young Song

CEO Ji-Young Song

Korean Foundation for Quality

Financial Information
GRI Standards Index
SASB Index
TCFD Index
UNGC Index
UN SDGs Index
External Assurance Statement
Greenhouse Gas (GHG) Emissions
Verification Statement
Scope 3 Emissions Verification Statement

Memberships and Disclosures

Memberships

Organizations	
Korea Intellectual Property Association (KINPA)	Korea National Committee of CIGRE
Korea Electrical Contractors Association (KECA)	Korea National Committee of CIRED
Korea Fire Safety Association (KFSA)	UN Global Compact Network Korea
Korea Electrical Association (KEA)	Korea International Trade Association (KITA)
Korea Electrical Manufacturers Association (KOEMA)	Korean Society for Quality Management (KSQM)
Korea Smart Grid Association (KSGA)	Korean Standards Association (KSA)
Korea Wind Energy Industry Association (KWEIA)	Ulsan Chamber of Commerce and Industry
Korea Industrial Technology Association (KOITA)	Seoul Chamber of Commerce and Industry
Korea Employers Federation	Seongnam Chamber of Commerce and Industry

Policy and Association Spending

Category		Unit	2021	2022	2023	2024
Policy Spending	Total policy-related spending	KRW million	273	279	357	730
	Lobbying and advocacy groups	KRW million	0	0	0	0
	Political contributions	KRW million	0	0	0	0
	Associations and non-taxable organizations	KRW million	273	279	357	730
Association Fee	Association fee_TOP 1	KRW million	69	82	96	370
	Association fee_TOP 2	KRW million	35	43	49	70
	Association fee_TOP 3	KRW million	26	26	35	64
	Association fee_TOP 4	KRW million	23	24	24	36
	Association fee_TOP 5	KRW million	17	17	17	25

Disclosures

Channel	Web Address	Key Information Provided
HD Hyundai Electric Website	https://www.hd-hyundaelectric.com/elect/en/index.jsp	Company overview, investor relations, product and distributor information, online support
HD Hyundai Electric LinkedIn	https://kr.linkedin.com/company/hdhyundaelectric	Product introductions and major news
HD Hyundai Electric Instagram	https://www.instagram.com/hd.hyundaelectric/	Product introductions and major news
HD Hyundai Electric YouTube	https://www.youtube.com/HYUNDAIELECTRIC	Product videos and key updates
HD Hyundai Ethics Portal	https://ethics.hd.com/HtmlE/main.html	Group's ethics management principles, Code of Ethics, whistleblowing channel
DART (Electronic Disclosure System) of the Financial Supervisory Service (FSS)	https://dart.fss.or.kr	Official and voluntary disclosures by listed companies
Investor Relations Disclosures	https://www.hd-hyundaelectric.com/elect/en/IR/IRdata1.jsp	Regular business performance and outlook

Top 5 Spending on Related Organizations and Associations

	Unit	2024
Korea Enterprises Federation	KRW million	370
Ulsan Chamber of Commerce and Industry	KRW million	70
Korea Electrical Manufacturers Association	KRW million	64
Korea Electrical Association	KRW million	36
Korea Employers Federation	KRW million	25

