ENERGY TOWARD SUSTAINABILITY

2024 Integrated Report of Doosan Enerbility

DOOSAN Enerbility

About This Report

This report is an integrated report that introduces Doosan Enerbility's sustainability management system and activities to enhance the economic and social sustainability of the company.

It contains a detailed description of Doosan Enerbility's business strategy and future growth driver businesses, as well as its sustainability activities and performance relating to environmental, social and governance aspects.

Report Criteria

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards, a global reporting standard, and has been reviewed by a third party for assurance. The GRI Index in the Appendix provides detailed information on the GRI Standards. We have also incorporated industry standards required by the Sustainability Accounting Standards Board (SASB), the Task Force on Climate-related Financial Disclosures (TCFD), and the UNGC CoP (Communication on Progress) principles.

Duration and Scope of Report

This report is based on our financial and non-financial performance from January 1, 2023 to December 31, 2023, and includes some performance data for the first half of 2024 which were considered material to our stakeholders' decision-making. Some quantitative results include three years worth of data to identify trends, and the financial results are presented on a consolidated basis in accordance with K-IFRS (Korean International Financial Reporting Standards). If the information presented in the previous report has been either corrected or rewritten, the changes are explained with footnotes. The scope of the report includes all projects of Doosan Enerbility, both domestic and overseas. Where necessary, the report also presents the activities and performance of overseas subsidiaries and affiliates.

Report Verification

To ensure the reliability and quality of our reporting, we have obtained assurance for non-financial information from an independent third party. The financial information has been audited by an independent audit firm and this report reflects their findings. The non-financial information has been assured by the Korea Quality Foundation. The respective assurance opinions can be found on pages 95-96.

Additional Information

This report is published and distributed in both Korean and English, and can be downloaded as a PDF file from Doosan Enerbility's website.

Address	Website	Responsible for
22, Doosan Volvo-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, South Korea	www.doosanenerbility.com	Credo/ESG Team

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Interactive User Guide

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Greetings

Dear valued stakeholders,

We would like to express our sincere gratitude to our stakeholders for your continued support in helping Doosan Enerbility move forward into the future. Through this Integrated Report, we aim to introduce our commitment to sustainability management and achievements as we move forward to become a leading eco-friendly energy company. We continue to face challenges such as the global economic slowdown and geopolitical risks posed by international conflicts. Against this global backdrop, we will continue to respond to policy changes in major countries, while continuing to embrace challenges and innovation for the future. Doosan Enerbility is focusing on the following three areas to ensure sustainable growth.

First, we will achieve sustainable growth by transforming our business portfolio into a green business through technological innovation.

Last year, Doosan Enerbility achieved its target order intake thanks to the performance of its eco-friendly energy business, which includes nuclear power plants, gas turbines, and offshore wind power. In the nuclear power business, Doosan Enerbility won orders for the supply of main components and main facility construction of a large nuclear power plant in Korea. In the gas turbine business, the company won its first project for the Korean-standard combined cycle gas turbine model and signed an additional supplier agreement for large gas turbines, thereby laying the foundation for a full-scale expansion of the business. In the renewables field, we gained the opportunity to apply our 8MW offshore wind turbine for the first time in Korea, and laid the foundation for synergy creation by establishing a subsidiary specializing in the development of renewable energy projects. We aim to take a great leap forward into the future based on these business portfolio transitions.

Second, we will enhance our global business competitiveness by proactively responding to global market trends.

Doosan Enerbility is utilizing its global network to closely understand the overall market conditions, including energy policies and industry trends of each country. The increase in electricity demand caused by the advent of the electrification era and widespread application of learning AI is expected to become a new growth driver for the energy industry. We will seek new opportunities and continuously pursue growth based on our eco-friendly energy solutions. For large nuclear power plants, we will focus on strengthening the competitiveness of the domestic nuclear power industry to win more orders in the global market, and for SMRs (small modular reactors), the next-generation nuclear power technology, we will upgrade our manufacturing capabilities to become a global SMR foundry. We will also continue to develop hydrogen turbines, which are emerging as a highly efficient, carbon-free power generation technology, and thereby position ourselves as a global leader. As for the 8MW offshore wind turbine model, we will capitalize on our achievements in the domestic market to support the continued growth of the renewable energy business in both the domestic and international markets.

Third, we will strive to embed ESG management across the entire value chain.

To ensure corporate sustainability, ESG must be embedded in the company's vision, as well as its business and operational strategies. To effectively respond to climate change issues, the company has established a carbon emissions management system for its workplace and is further enhancing the system to measure carbon emissions by product. To strengthen our safety management, the existing 'EHS Session' has been upgraded to the 'EHS Committee' and utilized as the company's top decision-making body for EHS, while the Quality Innovation Committee plans and inspects preventive quality management activities to internalize ESG management. In addition, Doosan Enerbility is strengthening ESG management across the entire value chain by conducting ESG assessments for partner companies to proactively check on their ESG risks and supporting ESG training and improvement activities based on the assessment results.

Despite the uncertainties that continue to exist in the business environment and the strengthening of ESG regulations, Doosan Enerbility will strive to boldly create opportunities. We would like to ask for your continued interest and support as we continuously pursue innovation to achieve sustainability.

Thank you.

Chairman & CEO
Geewon Park

About Us

Doosan Group

Our Name, Doosan

The name "Doosan" is a combination of the characters "Doo 斗," a unit of measurement for grain, and "San 山" which stands for mountain. Thus, the name "Doosan" means "to build a big mountain by piling up grain, one sack at a time." At Doosan, we aim to achieve greater things by building on our 128-year history and beliefs.

Doosan Credo

Our beliefs and philosophy

- The philosophy of Doosan people
- A charter that should guide all management actions and decisions
- Composed of Aspirations and Values

Doosan Credo System

Aspirations

Proud Global Doosan

Core Values

Doosan people put into daily practice the nine core values of the Doosan Credo. Doosan People practice the nine core values of the Doosan Credo at all our business sites to ultimately build a "Proud Global Doosan". These values guide the way we do business, the way we treat each other and the way we work with all of our partners. The nine core values of the Doosan Credo are as follows:

People	Cultivating People	Integrity & Transparency
Inhwa	Customers	Technology & Innovation
Profit	Social Responsibility	Safety & Environment

Doosan Vision

People-centered management that is the source of our global competitiveness ····· **Proud Global Doosan** ····· Operating a process that meets global standards

About Us

Doosan Corporation	Doosan Electronics Co.,Ltd.	Doosan Fuel Cell Co., Ltd.	Doosan Digital Innovation Co.,Ltd.	Doosan Distribution Co.,Ltd.
Major Subsidiaries	Doosan Enerbility Doosan Tesna Doosan Logistics Solutions Doosan Bears	Doosan Bobcat Doosan Robotics Oricom Hancom	Doosan Bobcat Korea Doosan Cuvex Doosan Magazine	Doosan Fuel Cell Doosan Mobility Innovation Doosan H2 Innovation
Auxiliary Institutions	Doosan Yonkang Foundation	Doosan Art Center	Doosan Business Institute	

Doosan Enerbility

Change of Name

Doosan Enerbility is the new name of Doosan Heavy Industries & Construction. The word "Enerbility" in Doosan Enerbility is coined by combining the words "Energy" and "Sustainability" and also includes the meaning of "Enable," which means to make the combination possible.

(changed by resolution of the Annual General Meeting of Shareholders on March 29, 2022)

Energy + Sustainability

General Status (As of the end of 2023)

Company Name	Doosan Enerbility
Representative Directors	Geewon Park (CEO), Yeonin Jung (COO), Sanghyun Park (CFO)
Founding Date	September 20, 1962
Number of Employees	5,965
Website	https://www.doosanenerbility.com/kr
Business Area	Power generation and desalination facilities, castings & forgings, construction and engineering, etc.
Location	**Headquarters** 22, Doosan Volvo-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, South Korea **Bundang Office** 155, Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, South Korea

Financial Performance (Consolidated as of the end of 2023)

Total Assets	Revenue	Operating Profit
KRW 24.6 trillion	KRW 17.6 trillion	KRW 1.5 trillion

Global Network

Doosan Enerbility's business vision, "GLOBAL LEADER IN POWER & WATER," is a manifestation of our intention to become the market leader in the global power and water sectors.

Global Subsidiaries — 11

Asia	Doosan GeoSolution (Korea), Doosan Recycle Solutions (Korea), Doosan Power Systems India (India), Doosan Vina (Vietnam), Doosan Power Systems Arabia (Saudi Arabia)
Europe	Doosan Power Systems (UK), Doosan Lentjes (Germany), Doosan Skoda Power (Czech Republic)
America	Doosan Power Systems America (USA), Doosan GridTech (USA), Doosan Turbomachinery Services (USA)

Overseas Branch Offices — 21

Asia	Riyadh, Dubai, Abu Dhabi, Kuwait, Hanoi, Jakarta, Taipei, Manila, Bangkok, Tokyo, Beijing, Shanghai, MENA Regional Headquarters, Tuwaiq JV
Europe / Africa	Cairo, Frankfurt
America	New Jersey, Newington, Pittsburgh, America Holdings, D20 Capital

R&D Center — 2

ATSE (Switzerland), ATSA (United States)

History

Getting Started and Challenges
1962~1980

1962
- Company Established

Growth and Development
1981~2000

1982
- Changwon General Machinery Plant

Successful privatization and leapfrogging
2001~2007

2001
- Privatization and name change to Doosan Heavy Industries & Construction

2009
- Acquired Skoda Power, gaining proprietary steam turbine technology
- Completed construction of Doosan VINA, the manufacturing plant in Vietnam (Currently, Doosan Enerbility Vietnam)

2011
- Acquired AE&E Lentjes, gaining proprietary CFB technology
- Declaration of the Doosan Credo

Path to global leadership
2008~2019

2016
- Acquired U.S. energy storage company 1Energy Systems (Currently, Doosan GridTech)

2017
- Obtained 5.5 MW offshore wind turbine technology
- Acquired ACT, a U.S. gas turbine service provider(Currently, DTS)

Transitioning to a green energy company
2020~

2020
- Completed development of large gas turbines
- Participated in the Jeju Green Hydrogen Demonstration Project
- Largest ESS contractor in Queensland, Australia

2022
- Changed name to Doosan Enerbility
- Completed development of 8MW wind turbine technology

2023
- Started commercial operation of large gas turbine built with our own technology (Gimpo CHP Plant)
- Established Doosan Recycle Solutions, a battery recycling company
- Established Doosan GeoSolution, a carbon-free energy development company

Sustainability Strategy

Business Strategy and Performance

Sustainability Management Foundation

Business Strategy and Performance

Business Overview

Global Energy Market Trends

The global trend toward expanding carbon-free energy sources for energy security and climate change mitigation continues. Agreements were reached at major summits (G7, G20) to triple renewable energy capacity by 2030, and at the COP28 UN Climate Change Conference to the United Nations Framework Convention on Climate Change (UNFCCC), 25 countries, including the United States, France, and South Korea, proclaimed the goal to triple nuclear power capacity by 2050. In addition, the EU has been piloting the Carbon Border Adjustment Mechanism (CBAM) since 2023, which charges carbon consumption tax for carbon emissions generated during production, and the United States is proposing a similar policy, the Clean Competition Act (CCA), which will make it even more important to utilize carbon-free energy sources to reduce the carbon footprint of products.

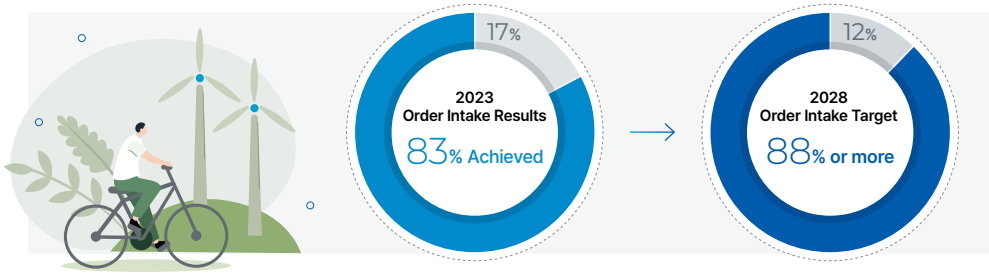
In Korea, the Basic Plan for Carbon-Neutral Green Growth was announced in 2023, raising the carbon emissions reduction rate in the power generation sector to be higher than the existing nationally determined contributions(NDCs). This is to be achieved through the expansion of clean energy and the hydrogen power generation business, which is growing owing to the launch of the general/clean hydrogen power bidding market. In Korea, the Carbon Free (CF) Alliance has been launched and efforts are being made to establish a certification system and promote global standardization for carbon-free energy, such as renewable energy, nuclear energy, hydrogen, and carbon capture. A special law to promote distributed energy has also been enforced, which is expected to open a new market for renewable energy, fuel cells, hydrogen power, and small modular reactors (SMRs).

Mid-to-Long Term Strategic Direction

Doosan Enerbility is shifting its business portfolio to eco-friendly energy, such as gas turbines, next generation nuclear reactors (SMRs), renewable energy and hydrogen, and endeavoring to build a track record in these areas to achieve energy security and address climate change. It has also established new subsidiaries like Doosan GeoSolutions to diversify its business model and create maximum synergy through the development of various eco-friendly projects. Doosan Recycle Solutions is another subsidiary that was established to promote the resource recycling business, such as lithium recovery from batteries.

Green Business Goals

Doosan Enerbility is expanding its eco-friendly business scope to achieve global carbon neutrality and sustainable business operations. In 2023, the company's eco-friendly business orders accounted for 83% of the total order intake, and the company plans to increase the proportion of its eco-friendly business to be over 88% by 2028.



R&D Investment

Doosan Enerbility is actively investing in strengthening the capabilities of its four growth driver businesses and the areas applying eco-friendly innovative technology. We continue to invest in the growth driver businesses, such as SMRs, gas turbines, renewable energy (wind power), and hydrogen, while steadily increasing our R&D investments in innovative technology. In the short term, we plan to expand our metal additive manufacturing (3D printing) business, which is the largest in Korea, and the resource recycling business such as lithium recovery from waste batteries, and in the long term, develop and commercialize our own materials.

Market Trends

Expanding Carbon-Free Energy

- Agreed to scale up carbon-free energy at COP 28, G20 and other key summits
- Prepare for carbon pricing, e.g., EU Carbon Border Adjustment Mechanism, US Clean Competition Act
- Launching the CF Alliance and implementing the Special Act on Promotion of Distributed Energy

Sustainable Business

Transitioning to a greener business

- Targeting the global market for large nuclear power plants and SMRs based on our nuclear component design and manufacturing technology
- Preemptively dominate the market through the supply of high-efficiency gas turbines in domestic & international markets and development of hydrogen turbines
- Diversify the business by entering the renewable energy development business and cooperating with global partners on wind power projects
- Secure business solutions for all stages of the hydrogen value chain from hydrogen production to delivery and utilization

Mid-to-long term strategy

Affiliate Companies

Doosan Recycle Solutions

Doosan Recycle Solutions is a subsidiary of Doosan Enerbility that was established in 2023 to expand our eco-friendly business model. Doosan Recycle Solution specializes in the secondary battery recycling business, which involves recovering lithium from waste batteries, and will start operating its production facility in the second half of 2025. With the new subsidiary, Doosan Enerbility will preempt business opportunities in the rapidly growing battery recycling market and accelerate sustainable business growth based on its competitive technology.

Overview

DOOSAN Recycle Solutions

Founding Date	July 2023 | CEO Jaehyuk Choi
Business Area	Primary non-ferrous metal manufacturing
Headquarters	155, Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea
Business Purpose	• Independent management system to agilely respond to internal/ external business environments and to gain market leadership in the rapidly growing battery recycling market • Commercial operation scheduled for late January 2026

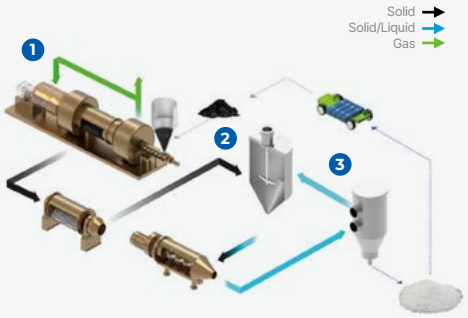
Technical Overview and Features

Doosan Recycle Solutions has developed an eco-friendly lithium extraction process (heat treatment→ water leaching → crystallization), one that is chemical-free and operated continuously for high productivity. Doosan has the capability to process various raw materials, ranging from battery scraps to end-of-life batteries, and is also capable of supplying lithium carbonate and lithium hydroxide to meet customer needs. It also boasts of high battery-grade lithium purity and the world's highest lithium recovery rate on an end-to-end* basis.

1 Heat Treatment
Converting the lithium in the scrap powder of spent batteries to lithium carbonate via heat treatment

2 Water Leaching
Dissolving lithium carbonate in water to selectively separate it from the "Residue NCM (Ni, Co, Mn)"

3 Crystallization
Creating a concentrated lithium carbonate solution, making battery-grade "lithium carbonate & lithium hydroxide"



* End-to-End: Lithium content in final product / Lithium content in raw materials

Doosan GeoSolutions

Doosan GeoSolution is a subsidiary specializing in carbon-free energy, and the name was coined by combining "Geo," which means Earth, and "Solutions" to signify our commitment to expanding our eco-friendly carbon-free energy solutions for a sustainable planet. Doosan GeoSolutions will be developing carbon-free energy projects, such as offshore wind power, hydrogen and fuel cell projects, and carrying out the role of a developer who oversees all the various stages from investment, to operation and maintenance. To this end, it will establish partnerships with domestic and overseas power generation equipment and construction partner companies to identify potential development projects, and promote synergy with other affiliates within the Doosan Group, such as Doosan Fuel Cell. As carbon-free energy is emerging as a realistic way to achieve carbon neutrality and energy security, Doosan Enerbility will accelerate the growth of its eco-friendly business with quick decision-making and expertise, as it has its own competitive technologies in the fields of carbon-free energy, such as offshore wind power, hydrogen, and fuel cells.

Overview

DOOSAN GeoSolution

Founding Date	December 2023 | Representative Directors Bongjun Kim / Jonghwan Park
Business Area	Advisory service on development projects, service provision and business consulting
Headquarters	155, Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea
Business Purpose	• Established as a subsidiary that specializes in development of projects to preemptively secure renewable/carbon-free energy business • Recurring businesses pursued such as O&M, distribution, sale of electricity, etc.

Business Portfolio

Wind Power
Development of offshore wind power projects based on offshore wind turbine equipment supply, construction and operation capabilities

Fuel Cells
Development of fuel cell business using locally-manufactured equipment in accordance with the government's distributed energy and hydrogen power bidding system

Hydrogen
Business development across the entire value chain including hydrogen/ammonia production, supply, and sales

ESG
Private sector collaboration on carbon-free energy pursued in alignment with RE100 and CFE Initiative

Business Portfolio

Growth Driver Businesses | Existing/Core Businesses | Innovation Businesses

	Business Development	Equipment / Components / Materials		EPC / Construction	O&M / Services
Gas Turbine		Gas Turbine	Hydrogen Turbine		Power Plant Equipment
Small Modular Reactors (SMRs)		SMR[1]			
Renewable	Renewable Business Development	Wind Turbines	Hydroelectric/ Pumped-Storage Hydro Power Plants	Wind Power Plant	
Hydrogen	Hydrogen Business Development	Ammonia Co-firing	Fuel Cells (Doosan Fuel Cells)	Hydrogen Production Plants Fuel Cell Power Plants	
Nuclear		NSSS[2] Equipment	CASK[3]	Nuclear Power Plant	
Power Generation/ Water Business		Steam Turbine	Generator	Combined Cycle Power Plants(CCPP) Water Treatment Plants	
Material Manufacturing		Castings & Forgings	AM[4]	Lithium Recovery	

Digital Solutions

- Predictive Diagnostics (PreVision)
- Optimization
- Digital Twin
- Data Analytics Solutions

1) SMR : Small Modular Reactor 2) NSSS : Nuclear Steam Supply System 3) CASK : Dry Cask Storage Of Spent Nuclear Fuel 4) AM : Additive Manufacturing

Growth Driver Businesses

Gas Turbines

The large-scale gas turbine market is expected to continue to grow due to global low-carbon energy transition policies and accelerated conversion of old coal power plants. Based on the successful commercial operation of Doosan gas turbines manufactured with its own technology, Doosan Enerbility was able to win a contract to supply gas turbines for two power plants in Korea and has plans to further improve sales and profitability by increasing its share of gas turbine equipment in the domestic market, targeting overseas gas turbine markets, and expanding its high-margin service business.

Goals

- Expand gas turbine business in the domestic market and advance into overseas markets
- Capture the hydrogen turbine market and advance gas turbine business by successfully developing aviation engines

Strategy

- Expand domestic and international supply of high-efficiency gas turbines and high-margin service businesses based on stable operational performance
- Accelerate hydrogen turbine development to get ahead of the game
- Expedite aircraft (drone) engine development

Core Business Areas and Key Products

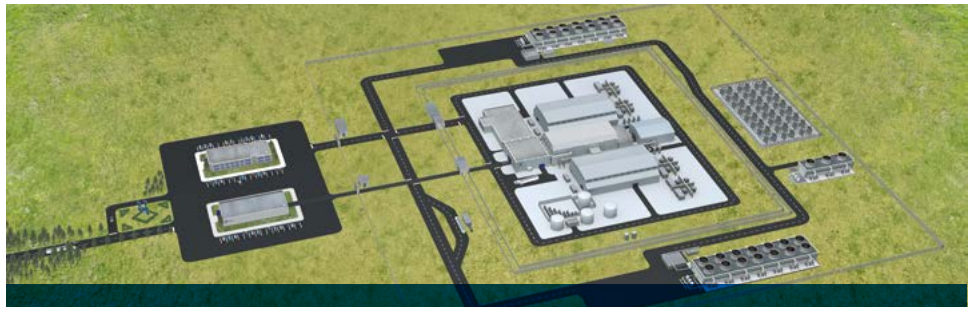
Standard combined cycle gas turbine models
- Development of 380MW gas turbine completed, supply contract signed and under construction

Aircraft engine development
- Developing turbofan engines for unmanned aerial vehicles in conjunction with national projects

Hydrogen turbine
- 30% co-firing ratio successfully achieved in hydrogen turbine combustor, 50% co-firing ratio achieved in conjunction with national projects, and 100% hydrogen combustor under development

Major R&D achievements in 2023

After demonstration & commercialization of the large gas turbine, continuous investments being made in materials technology, maintenance technology and predictive technology for development of subsequent models, performance improvement and services.



Next Generation Nuclear Reactors (SMRs)

Doosan Enerbility is pursuing the SMR Foundry business strategy, which allows us to manufacture various SMRs based on many years of experiences in manufacturing nuclear power plant equipment. To this end, we have established strategic partnerships with NuScale and X-energy, which are global leaders among SMR developers. In addition, we are expanding our production capacity to simultaneously manufacture quantities ranging from 4 to 10 or more modules per unit. We are also striving to establish a dedicated production system that can significantly shorten the production period and mass-produce high-quality SMRs through the introduction of innovative production technologies.

Goals

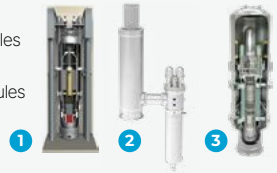
- Build a competitive SMR Foundry

Strategy

- Secure SMR orders by proactively investing in equity and building partnerships with other companies
- Factory optimization to enable simultaneous production of large NPPs, SMRs
- Establish SMR mass production system by expanding factory's manufacturing capacity and applying innovative manufacturing technology

Core Business Areas and Key Products

1. **NuScale**
   - Manufacturing the castings & forgings and components for NuScale reactor modules
2. **X-energy**
   - Manufacturing the castings & forgings and components for X-energy reactor modules
3. **i-SMR**
   - Manufacturability Review



Major R&D achievements in 2023

Innovative manufacturing technologies such as materials/welding/analysis/inspection/automation for SMR foundries, nuclear power plant decommissioning and spent fuel storage vessel technologies, and some existing large nuclear power plants/services.

Growth Driver Businesses

Renewable Energy

Doosan Enerbility will provide optimal solutions to customers by conducting a comprehensive line of businesses including EPC and O&M services as well as equipment supply based on its own wind turbine technologies.
In addition, Doosan Enerbility is expanding its business model by establishing Doosan GeoSolution, a subsidiary for renewable energy development business, to secure sustainable and stable profits and expand synergies with the company's equipment business.

Goals

- Establish a strong Total Solution Provider position by enhancing competitiveness across the wind business lifecycle
- Enter and expand renewable development business

Strategy

- Diversify businesses by expanding domestic large-scale offshore wind model business and cooperating with overseas companies
- Expand renewable business portfolio by establishing a subsidiary specializing in development projects

Core Business Areas and Key Products

Wind Power
- Currently developing 10MW variation model (DS205-10MW) using the same platform as the 8MW model

Renewable energy generation business
- Currently developing self-consumption rooftop solar power systems for Changwon plant and subsidiaries

Major R&D achievements in 2023

Development and demonstration of large wind turbine models, and technology development for wind power output forecast and diagnosis

Hydrogen

With an aim to contribute to the introduction and revitalization of the hydrogen economy, we are developing core technologies that can enable decarbonization of the power generation sector through fuel conversion to clean hydrogen as the only OEM of power generation equipment in Korea, while executing domestic demonstration projects in cooperation with the government. In addition, we are establishing partnerships to develop clean hydrogen production technologies and to introduce hydrogen/ammonia from overseas.

Goals

- Secure unrivalled technologies for hydrogen power generation and equipment supply
- Promote End-to-End business by securing key value chain capabilities

Strategy

- Enhance competitiveness through project execution in the entire value chain of hydrogen production, supply, and utilization
- Promote hydrogen supply business in connection with hydrogen power generation business

Core Business Areas

- Water electrolysis plant engineering and operation technology utilizing renewable energy
- Utilizing nuclear energy for energy security Domestic clean hydrogen production
- Developing clean ammonia-based hydrogen production technology for overseas adoption
- Overseas clean hydrogen import/supply and domestic infrastructure deployment

Key Products

Ammonia Co-firing Boiler
- Development/demonstration of ammonia co-firing technology for USC/CFB boilers

Hydrogen gas turbines
- Development/demonstration of 100% hydrogen combustion/co-firing models for the entire gas turbine lineup

Fuel Cell
- Power generation and EPC project participation utilizing fuel cells

Major R&D achievements in 2023

Development of gas turbine-based hydrogen co-firing and 100% combustion turbines, ammonia co-firing technology, hydrogen production (Jeju green hydrogen production demonstration, biogas hydrogen production demonstration), and ammonia cracking technology

Existing/Core Businesses

Large NPPs

In the nuclear power business, the unit 4 of the UAE Barakah Nuclear Power Plants, the first Korean nuclear power plant export project, is scheduled to enter commercial operation within 2024, and the timely completion of the four units has demonstrated the company's technological competence. In Korea, Shin-Hanul units 1 and 2, which achieved 100% localization by localizing Reactor Coolant Pump(RCP) and Man-Machine Interface System(MMIS), which remained dependent technologies, started commercial operation in April '24. We also signed a contract in March '23 to supply main components for Shin-Hanul units 3 and 4, signaling the restoration of the nuclear power plant ecosystem. As a member of Team Korea, Doosan Enerbility is contributing to the stable supply of electricity and the achievement of greenhouse gas reduction goals in Korea. In addition, we are actively promoting the export of Korean NPPs to countries such as the Czech Republic and Poland based on the strategies customized for each country.

Core Business Areas and Key Products

1. **Nuclear Reactors and Internal Structures**
   - A reactor is a pressure vessel that stores nuclear fuel and provides a place for a chain of nuclear reactions to take place, which is the most critical component of a nuclear power plant.
   - Possessing the only large-scale reactor manufacturing capability in Korea, we are planning to manufacture and supply APR1000 reactors customized for Europe in the future based on our experience in supplying multiple reactors of APR1400, a Korean nuclear power plant.
2. **Steam Generator**
   - Steam generator is a critical component of the Reactor Cooling System, where heat is exchanged from the primary coolant loop of the reactor system to the secondary coolant loop of the turbine/generator system to generate steam.
   - Designed, manufactured and supplied steam generators for Korean nuclear power plants (OPR1000, APR1400) and AP1000 steam generators for Westinghouse in the U.S., as well as many other nuclear power plants in Korea and overseas.
3. **Backend Nuclear Fuel Cycle - Cask, Decommissioning**
   - Secured cask technology and promoting domestic and overseas projects
     - Obtained design approval from the NRC, the U.S. nuclear regulatory agency, for the Korean metal storage overpack (MSO-37) in January '23
     - Delivered nuclear storage vessels for Three Mile Island (TMI) units 1 and 2 in the U.S. in March 2024.
     - In November 2023, signed a contract for a comprehensive design service for Korean cask and carrying out the project, while pursuing orders for future production projects.
   - Promoting domestic and overseas projects through nuclear power plant decommissioning technology development
     - Based on the service technology of operating nuclear power plants, gradual technology development including dismantling of reactor core equipment is underway through participation in national projects.
4. **Nuclear Power Plant Construction**
   - Constructed 10 nuclear power plants in Korea (Hanul 1-6, Saeul 1-4)
   - Won orders and constructed facilities for Shin-Hanul Nuclear Power Plant units 3 and 4 in 2023
   - Worked with Korea Hydro & Nuclear Power as part of 'Team Korea' construction team to win overseas nuclear power plant orders in the Czech Republic, Poland, and other countries

Power EPC

As a global leader in the power generation sector, Doosan Enerbility has the EPC capabilities to execute the entire value chain from plant design to equipment supply, construction and commissioning. Based on these capabilities, we are currently undertaking a number of projects in Korea and abroad, and we are in the process of transforming our business portfolio to increase the proportion of low-carbon energy plants to become an eco-friendly power generation company.

Core Business Areas and Key Products

Combined Cycle Power Plant
- Won orders for the construction of the Turkistan CCGT (1000 MW) in Kazakhstan and the Goseong Natural Gas Power Plant (1120 MW) in 2023
- Seeking to increase order intake in the Commonwealth of Independent States (CIS) and Southeast Asia including Vietnam
- Capturing opportunities to enter new markets, including Eastern Europe

Water EPC

Doosan Enerbility has capabilities in the entire water EPC value chain, including design, equipment supply, and construction, based on which we have been supplying water to countries with a capacity of about 8 million tons/day for the past 35 years, starting with the Farasan project in Saudi Arabia in 1978 and continuing with the Shuaibah 3 project in Saudi Arabia in 2022.

Core Business Areas and Key Products

1. **MSF/MED Desalination Plants**
   - MSF, MED technology is a seawater to freshwater conversion technology that can produce high purity freshwater even under various water quality conditions such as high salt concentration.
   - Capability to design and build evaporators in-house, a key component of MSF and MED
2. **RO(Reverse Osmosis)Desalination Plant**
   - RO technology is a versatile seawater desalination technology that can operate without steam, has relatively low energy consumption, and is available in a wide range of capacities and process applications.
   - Received large RO plant orders, including Yanbu 4 IWP (450,000 m^3/day) and Shuaibah 3 (600,000 m^3/day)

Existing/Core Businesses

Casting & Forging Business

Doosan Enerbility is committed to creating value for our customers by continuously investing in building optimal infrastructure to produce clean and highly functional metal materials in line with industrial development. Based on its core competencies, Doosan Enerbility expects to further increase opportunities for order intake in the power generation, shipbuilding, and marine sectors.

Core Business Areas and Key Products

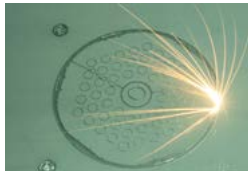
1. **Nuclear Materials**
   - Core fabrication capabilities for large materials for major nuclear components such as reactors and steam generators
   - Supply of key forgings for large nuclear power plants and SMRs to customers
2. **Turbine Materials**
   - Manufacturing and supply of high-quality castings and forgings for power generation based on consistent production facilities and in-house technologies
   - Supplying rotor materials for high, medium, and low-pressure turbine rotors and generators to customers worldwide
3. **Crankshaft (C/S) and Shipbuilding Components**
   - Doosan holds all the major shipbuilding certifications (ABS, DNV, etc.)
   - Supply of castings and forgings for marine vessels such as Shaft, Stern Frame Castings and Crankshaft for marine engines to major shipyards in Korea and overseas
4. **Rack & Chord and Marine Components**
   - Rack&Chord special steel, a key structure that forms the steel bridge of offshore wind turbine installation vessels, which was mass produced from 2022 and successfully supplied to ENETI offshore wind turbine installation vessels(2) in 2023
   - Simultaneous and timely supply of various grades of high-strength, low-temperature castings and forgings for marine power plants such as offshore drilling systems, transport vessels and specialized vessels

Innovation Businesses

Additive Manufacturing (3D Printing)

Through continuous technology development, Doosan Enerbility has secured AM (Additive Manufacturing, 3D printing) technology for the entire value chain, including design, manufacturing, post-processing, and quality inspection, and boasts the highest level of technology capabilities in Korea, especially in the field of L-PBF (Laser-Powder Bed Fusion) metal AM manufacturing. To improve the performance of our independently developed gas turbines, we are mass-producing combustor components using AM technology. We have participated in joint development projects with various customers and are reaping fruits such as successful prototype production and demonstration tests, and we are expanding our business fields from the aviation and defense fields to shipbuilding, aerospace, and automobiles. We have introduced international quality management systems (AS 9100, ISO 9001) to meet quality requirements.

Changwon 3D Printing FAB Overview

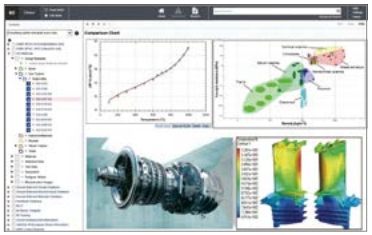


AM Operation

Titanium AM Parts

Proprietary Materials

Utilizing its accumulated development experience and database, Doosan Enerbility has full-cycle material engineering capabilities, including development, manufacturing, physical properties, and lifetime evaluation of various materials ranging from steel to super heat-resistant alloys, which are utilized in all energy-related industries such as mechanical parts and shipbuilding/marine/power plants. Doosan Enerbility has established and operates D-MAPs, a proprietary material properties database platform, and is continuously updating and maintaining the latest material properties to reliably provide the material information required by the entire value chain. In addition, through convergence with material AI technology, we are accelerating innovation in manufacturing technology, development of new materials and new steel types, and localization of master alloys for hot parts of aviation engines, through which we plan to strengthen the competitiveness of our unique materials and further expand business scale.



D-MAPs (Doosan-Material Properties System)

Innovation Businesses

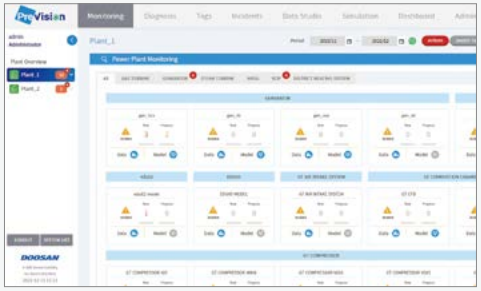
Digital Transformation

Doosan Enerbility has been preparing for changes in the market environment by promoting digital transformation to keep pace with the pace of technological innovation in the era of the Fourth Industrial Revolution. Doosan Enerbility provides customers with digital solutions that combine our unique capabilities in power generation equipment design and production with IT technologies such as artificial intelligence and big data.

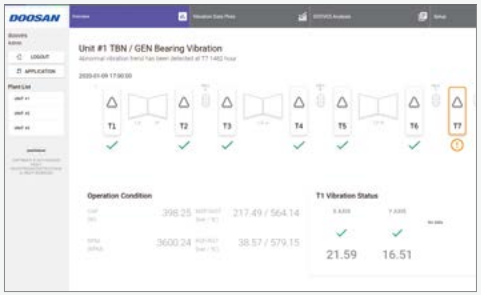
Digital Solutions

Plant Predictive Diagnostics Solution (PreVision) & Rotating Equipment Vibration Diagnostics Solution (DOOVES)

- PreVision™, an AI-based prediction and diagnostics solution, is a solution that uses two or more algorithms to improve the prediction accuracy of faults. It helps to minimize facility downtime caused by failures in power plants/industrial facilities, thereby reducing the plant operating costs for customers.
- The rotating machine vibration diagnostics solution analyzes the vibration data in parallel with the operating data when vibration issues occur on high-speed rotating machines used at the plants, after which a vibration expert analysis tool is used to extract similar fault cases from the case study database and deliver action guides to the users.



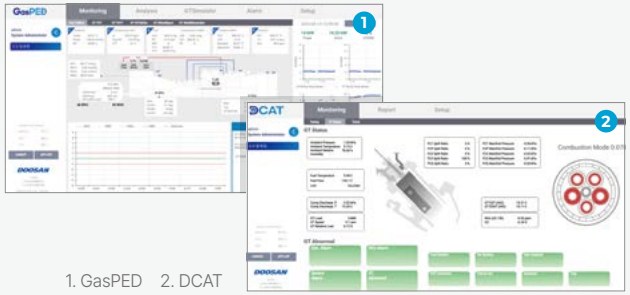
Predictive Diagnostics Screen



Vibration Diagnostics Screen

DooCARE

Doosan Enerbility's gas turbine-specific solution uses a physical model and operating data combination to provide users with performance data reflecting the current status of the gas turbine and has an automatic combustion tuning solution that proactively responds to changes in the combustion conditions, such as the atmospheric environment and calorific value fluctuations.



1. GasPED 2. DCAT

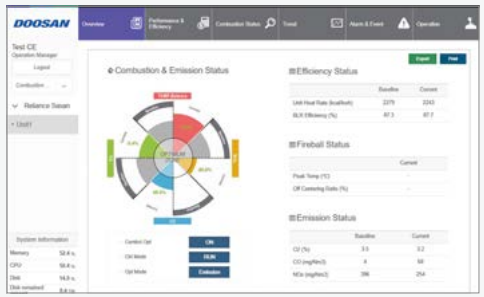
Data Analytics Solutions (D-Vision)

D-Vision, a data analytics solution is a subscription-based Cloud service that improves production quality by reading and detecting welding defects through AI image analysis.

D-vision

AI Plant Optimization Solution (Optimizer)

The optimization solution is an AI solution that calculates optimized operating parameters through real-time analysis of operating data based on the Neural Network (NN) Model Generator and Particle Swarm Optimizer (PSO) algorithm. It can be used to maximize the operating efficiency of facilities and stabilize the operating environment.



AI optimization solutions

Operation of Remote Monitoring Service (RMS) Center

Through the RMS (Remote Monitoring Service) Center, we remotely monitor the operational status of major equipment at many power plants in real time to support our customers with emergency measures in case of problems, and we plan to apply this to more sites in the future.

RMS Center

Business Milestones

Awarded EPC Contract for 1000 MW Combined Cycle Power Plant in Shymkent Region of Southern Kazakhstan

Doosan Enerbility signed a contract with Turkistan LLP, a subsidiary of Kazakhstan's sovereign wealth fund Samruk-Kazna, for the construction of the 'Turkistan Combined Cycle Power Plant'. Doosan Enerbility formed a consortium with Kazakhstan's local construction company Bazis. The contract is valued to be approximately KRW 1.15 trillion.

Signed Main Components Supplier Agreement for Shin-Hanul Units 3 and 4 and Won Main Facility Construction Contract

Doosan Enerbility signed a contract for the supply of main components for Shin-Hanul Nuclear Power Plant Units 3-4 (March) and a contract for the construction of the main facilities (December). Doosan Enerbility will manufacture and supply core components, such as reactors, steam generators and turbine generators, and will be responsible for civil, architectural, mechanical, and piping works for the two nuclear power plant units.

Signed Supplier Agreement for Boryeong New Combined Cycle Power Plant

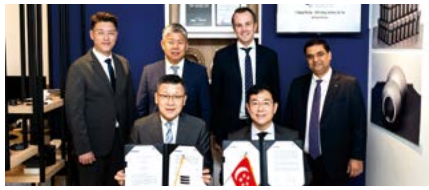
Doosan Enerbility signed a commercial agreement with Korea Midland Power(KOMIPO) for the first application of a Korean-standard combined cycle gas turbine. The Boryeong New Combined Cycle Power Plant will contribute to the government's coal phase-out policy as a replacement for Boryeong Thermal Power Plant Unit 5.

Signed Supplier Agreement for Andong Combined Cycle Power Plant Unit 2

Doosan Enerbility signed a contract with Korea Southern Power(KOSPO) to supply the main components of the Andong Combined Cycle Power Plant Unit 2. The Andong Combined Cycle Power Plant will be built as an eco-friendly hydrogen-fueled power plant, contributing to the country's carbon reduction goals.

Construction Completed for Changwon Hydrogen Liquefaction Plant

Operation of Korean-Standard Gas Turbine Initiated

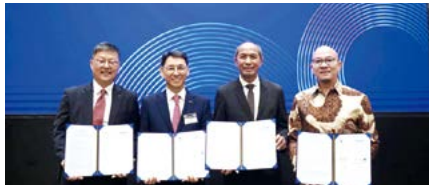


Metal Additive Manufacturing (3DP) Business Expanded into Shipbuilding Sector

Doosan Recycle Solutions Enters into Global Partnership to Expand Supplier Base for Battery Recycling Materials

Hosted DX Forum to Showcase Digital Transformation in Industry

Jeju Green Hydrogen Production Plant Begins Commercial Operation



Signed Agreement with Indonesia Power to Supply Green Power Generation Technology

Demonstration of High-efficiency Hydrogen Turbine

Sustainability Management Foundation

Strategies

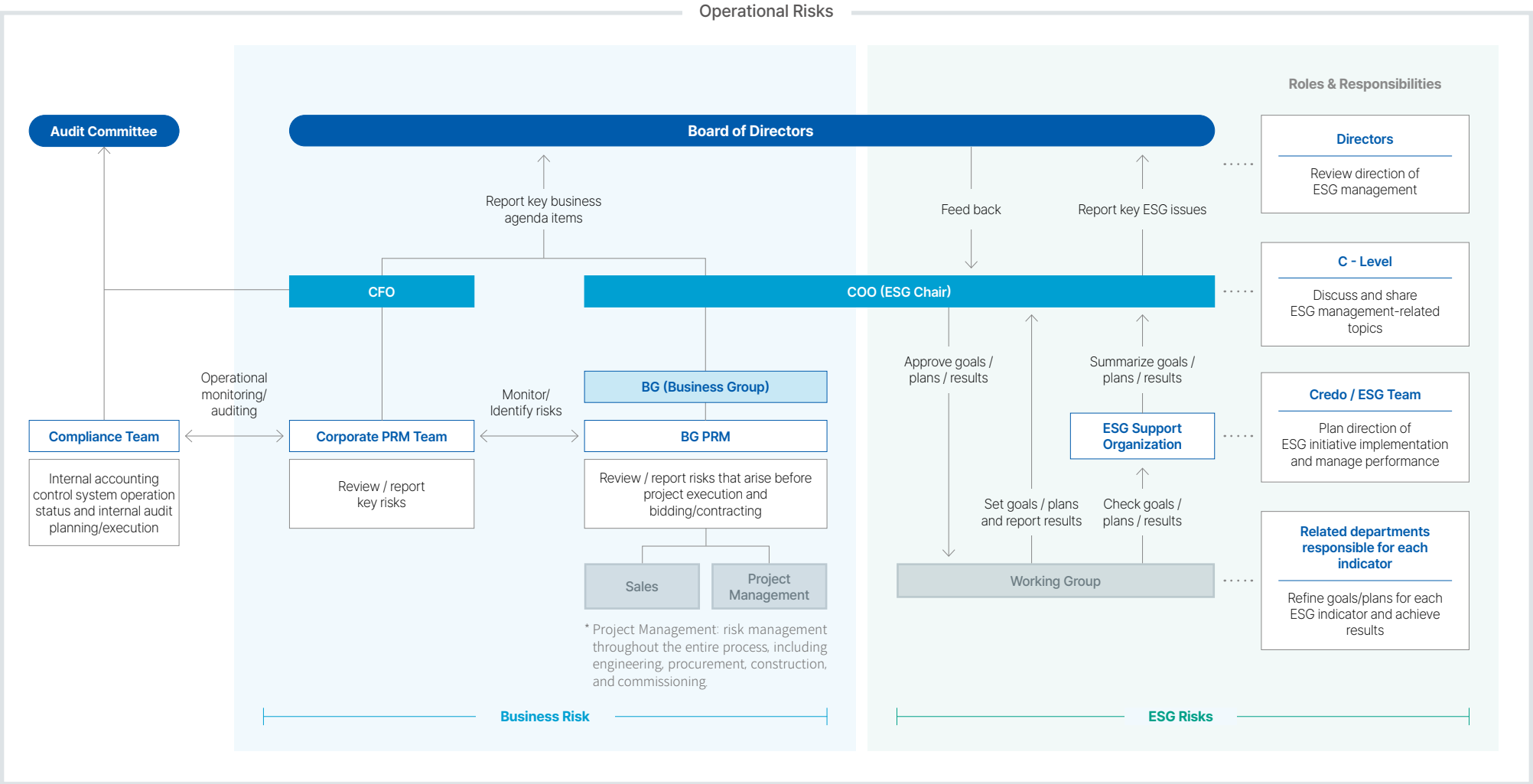
Doosan Enerbility considers sustainability management as a core management principle to strengthen the company's competitiveness, and has established and operates sustainability management strategies and policies throughout its operations. In particular, we strive to reduce environmental impacts by expanding our eco-friendly energy businesses and steadily increase corporate sustainability by promoting environmental and social values. In addition, we are conducting various activities to strengthen sustainability management through setting mid-to long-term roadmaps and performance management indicators.

Governance

Doosan Enerbility's ESG Committee is organized under the chairmanship of the COO to address key issues related to sustainability management for the sustainable growth of the company. In particular, the ESG Committee considers relevant trends, regulatory developments, and social requirements to take proactive measures and strengthen the ESG management system in order to practice sustainable management. The issues reviewed by the ESG Committee are implemented by establishing specific goals and strategies for each Business Group under the leadership of the company's top management.

Integrated Risk Management

Doosan Enerbility has established management organizations according to risk types to effectively carry out the entire process of [identifying risk], [responding], and [making improvement plans]. Each type of risk is managed through the Council/Committee operated by relevant management organizations and reported to the BoD depending on the severity of the issue.



Risk Management Process

Operational Risks

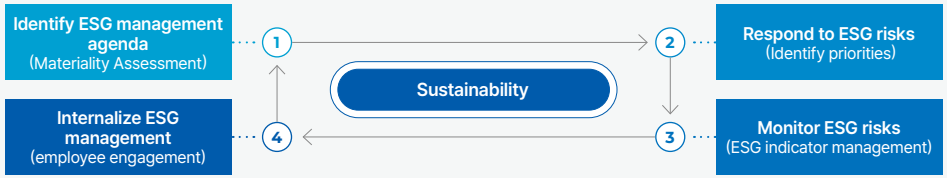
- **Risks in business processes across the company, including accounting, internal audit, and internal accounting control systems.**
- Systems and activities
  - Plan/conduct internal audit of the company's internal accounting control system operation through Compliance Team

Business Risks

- **Risks that arise before project execution and bidding/contracting**
- Systems and activities
  - Each business unit checks and manages risks that arise at the sites and reviews and reports them through the BG/Corporate PRM Teams
  - Risks identified by the Corporate PRM Team are categorized into Finance and Operations, managed/reported to the management according to procedures, and reported to the Board of Directors depending on the severity of the issue.

ESG Risks

- **Key issues that have a significant impact on the sustainability of the company and its business, identified through Double Materiality Assessment.**
- After reviewing the direction of the risk through the ESG Committee, [Response] → [Monitoring] → [Internalization] activities are carried out.



Potential Risks

- **Emerging long-term risks that could impact the business**
- For the potential risks identified, set action plans to mitigate them and try to minimize negative impacts.

Risks	**Global cyber security threats and security regulations increase the risks in protecting core technologies**	**Growing risks in raw material sourcing due to natural resource scarcity**
Category	**Technological**	**Environmental**
Description	As technology advances, new forms of security threats are expected to arise, and dual attacks, ransomware attacks and generative AI-based methods are expected to become increasingly sophisticated. In particular, with the convergence of information technology and operation of new businesses, companies in the infrastructure, industrial facility business and manufacturing sectors will become more vulnerable to cyber attacks.	According to the World Economic Forum (WEF), natural resources such as water, land, minerals, and forests, which are utilized by societies and businesses to function, are essential for sustainable economic development. Petroleum and mineral resources are the main raw materials for energy and industrial production, with limited reserves and ever-increasing consumption leading to a resource depletion crisis.
Impact	Cyber security, strengthened global information protection laws and higher levels of information protection by stakeholders are required. An occurrence of an issue would cause disruption of production facilities, reputational damage due to reduced reliability, and financial costs for recovery.	Growing instability in the supply of raw minerals used in the manufacture of industrial products, such as nickel, copper, lithium, rare earth metals and others leads to transition of existing industries and increased purchasing costs for key mineral resources.
Mitigation Plan	Doosan Enerbility aims to strengthen protection measures for core technologies in response to increasing cyber security threats and reinforce the OT (Operation Technology) protection system for IT equipment assets in production facilities.	To mitigate raw material procurement risks in the face of natural resource depletion, Doosan Enerbility will expand new recycling businesses to recover key minerals such as lithium, and strengthen activities such as reducing the use of raw materials at the company's business sites, expanding recycling, and managing supply chain risks.

Double Materiality Assessment

Overview of Double Materiality Assessment

Doosan Enerbility conducts a materiality assessment every year to communicate transparently with stakeholders and systematically identify and manage ESG issues. In 2024, we conducted a Double Materiality Assessment to understand the impact of our business activities on the society and the environment, as well as the financial impact of external business environment factors such as climate change and changes in social values, in line with the recommendations of enhanced international disclosure standards. Doosan Enerbility will manage the ESG issues identified through this process more diligently and strengthen efforts to respond to them.

Double Materiality Assessment Process

STEP 1 — **Analyze internal and external environments and status**

Industry classification and analysis of domestic and international trends

- **Enhanced industry classification criteria:** applied MSCI, DJSI, and SASB criteria, taking into account of the company's activities under GICS and SICS and the impact of upstream and downstream activities

Industry Standards in Doosan Enerbility's Value Chain	• Upstream: Steel • Doosan Enerbility: Heavy Electric Equipment • Downstream: Engineering & Construction, Wind Power

- **Analysis of rating/disclosure standards:** Analysis of ESG-related international initiatives and guidelines (9 organizations in total, including GRI Standards, KCGS, MSCI, SASB, ESRS, ISSB, DJSI, etc.)
- **Benchmarking:** Identification of key issues in sustainability management among peer companies
- **Stakeholder interest:** Analysis of the interest level of 47 stakeholder group companies, including customers, investors, and key partner companies.
- **Analysis of internal materials :** board agendas, ESG committee agendas, etc.

Analyze domestic and overseas press and media issues

- **Research period:** January 1, 2023 to December 31, 2023
- **Domestic Media Analysis:** Analyzed articles related to Doosan Enerbility's sustainability (ESG) on major domestic media outlets and intranets based on the news big data analysis system (BIG KINDS)
- **Overseas Media Analysis:** Analyzed Doosan Enerbility's sustainability management (ESG) related articles in major overseas media outlets based on Google News platform

STEP 2 — **Create issue pools**

10 material issues of Doosan Enerbility have been identified based on internal and external environmental analysis and current status diagnosis

2024 Key Issues	
E	Climate risk (natural disasters, environmental regulations), Greenhouse gas emissions management, Energy consumption
S	Human rights management, Health and safety management, Product quality with safety in mind, Diversity and inclusion, Sustainable/responsible supply chain
G	Business portfolio transition, Ethics and compliance management

STEP 3 — **Conduct a double materiality assessment survey**

To select the most material issues among the 10 issues identified, a double materiality-based survey was conducted among the company's internal and external stakeholders on ESG management and related issues.

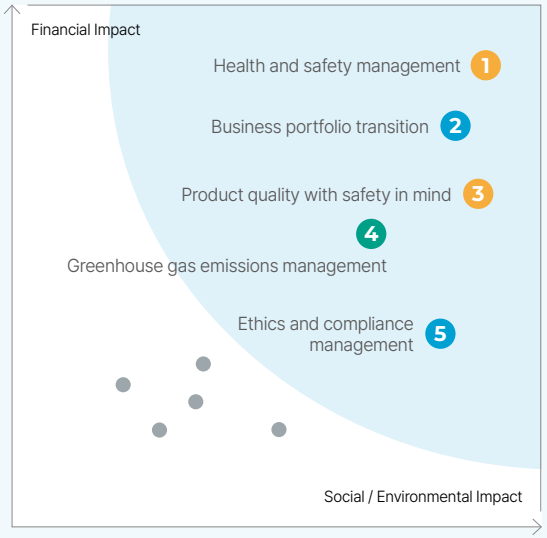
Survey period	Survey method
March 18, 2023 - March 24, 2023	Online survey

Number of key stakeholders surveyed	• Doosan Enerbility Change Agents and Focus Group • External Experts
Doosan Enerbility's Change Agent (CA)?	As a key person who leads positive change together with Doosan Enerbility's leaders, he/she plays a pivotal role in understanding and building mutual understanding of the organizational culture/ change management direction pursued by Doosan Group.

STEP 4 — **Prioritize issues and select key topics**

Based on the results of the Double Materiality Assessment, we prioritized all issues and identified five key issues for Doosan Enerbility this year.

2024 Key Topics



Rank-ing	Cate-gory	Issue	Year on year change	Actual / Potential	Impact Severity
1	S	Health and safety management	▲1	Actual	●
2	G	Business portfolio transition	▼1	Potential	●
3	S	Product quality with safety in mind	▲1	Potential	●
4	E	Greenhouse gas emissions management	▲1	Potential	◐
5	G	Ethics and compliance management	New	Potential	◐

Result of the Materiality Assessment

Doosan Enerbility selected five key topics corresponding to issues with significant social and environmental impacts based on key disclosure and evaluation criteria, domestic and overseas media analysis, and employee surveys. We will systematically manage ESG risks and opportunities in the five key topics and practice ESG management to prepare for the future.

⊕ Positive ⊖ Negative | Degree of Impact: ● High ◐ Medium ○ Low

Ranking	Category	Issue		Impact attributes and definitions	Impact Severity	Social/environmental impact Inside → Out		Financial impact Outside → In		Stakeholders	Global initiatives		Reporting Location
											GRI	UN SDGs	
1	S	Actual Health and safety management ▲1	⊕	• Provide a safe and comfortable working environment by improving safety and health management capabilities and safety culture awareness across the enterprise value chain • Prevent accidents and reduce accident handling costs through improved health and safety management systems	●	Scale and scope Likelihood of occurrence	● ●	Scale Likelihood of occurrence	● ●	Employees Partner companies Government	403-1~10	3, 8	23, 39-41, 80
			⊖	• Higher legal and administrative risks due to loss of life from safety and health accidents and lack of compliance with safety-related laws and regulations • Increased costs for strengthening safety and health management at sites, and incurred costs for handling human and property damages in the event of an accident		Scale and scope Likelihood of occurrence Resilience	● ● ○	Scale Likelihood of occurrence	● ●				
2	E	Potential Business portfolio Transition ▼1	⊕	• Contribute to climate change mitigation through the development of new eco-friendly products, and contribute to Just transition through job creation and employee competency development • Enhance the competitiveness of products and companies and increase company revenue by ensuring the environmental friendliness and marketability of new businesses	●	Scale and scope Likelihood of occurrence	● ◐	Scale Likelihood of occurrence	● ◐	Local Community Partner companies	-	9, 12, 13	9-17, 23
			⊖	• Climate change accelerated by slow transition to green businesses • Weakened market competitiveness and financial losses due to difficulties in green business transition		Scale and scope Likelihood of occurrence Resilience	● ◐ -	Scale Likelihood of occurrence	◐ ◐				
3	S	Potential Product quality with safety in mind ▲1	⊕	• Increase trust and customer satisfaction with products and company based on increased safety through the production and purchase of high-quality products. • Reduce recalls and needs for after-sales service, increase sales, and enhance corporate competitiveness through superior quality safety	●	Scale and scope Likelihood of occurrence	◐ ◐	Scale Likelihood of occurrence	◐ ○	Customers Competitors	416-1~2	12	23, 42-44, 81
			⊖	• Accidents caused by contamination and harmful substance leakage/fire in the process of product use • Negative financial consequences, such as lost sales, fines, and damage to the company's product image internally and externally, resulting from accidents in the process of product use.		Scale and scope Likelihood of occurrence Resilience	● ◐ ○	Scale Likelihood of occurrence	○ ○				
4	E	Potential Greenhouse gas emissions management ▲1	⊕	• Contribute to meeting our Nationally Determined Contribution (NDC) through aggressive GHG emissions reduction efforts and contribute to achieving carbon neutrality by 2050 • Attract investors that prefer green/low carbon businesses to raise investment and secure Carbon Credit business opportunities	◐	Scale and scope Likelihood of occurrence	● ◐	Scale Likelihood of occurrence	● ◐	Shareholders Customers Government	305-1~7	3, 7, 13	23, 33-37, 71, 74
			⊖	• Lack of tangible and sustained commitment to reducing greenhouse gas emissions, leading to adverse global warming impacts • Increase in operating costs and financing risks due to higher carbon taxes, green bonds, etc.		Scale and scope Likelihood of occurrence Resilience	◐ ◐ ◐	Scale Likelihood of occurrence	● ◐				
5	G	Potential Ethics and compliance management New	⊕	• Contribute to providing best practices in society and creating a healthy corporate/social atmosphere by establishing/implementing a high standard ethical (compliance) management system • Raise the level of integrity/transparency to achieve legitimate gains	◐	Scale and scope Likelihood of occurrence	◐ ●	Scale Likelihood of occurrence	◐ ●	Employees Customers	205-1~3 405-1~2	16	23, 63-64, 84
			⊖	• Unrest among employees and the society due to corruption and breaches of ethical standards within the organization • Loss of internal and external trust and damage to corporate image, resulting in fines and other costs		Scale and scope Likelihood of occurrence Resilience	◐ ● ●	Scale Likelihood of occurrence	◐ ●				

Management Approach

Doosan Enerbility reflects the results of the materiality assessment conducted annually throughout its management and overhauls its ESG and strategic systems to pursue sustainable growth of the company and society. In addition, for the five finalized Key Topics, we transparently disclose our company-wide response activities in this Integrated Report to communicate with stakeholders and strengthen our ESG management capabilities. Details of the GRI Index for the Key Topics can be found on pages 88-89.

Ranking	Issue	Issue background	Strategies and Plans	Activities and Achievements
1	**Health and safety management**	Safety and health management is an essential element of global standards that prioritize the lives and health of workers, and efforts to manage and prevent safety and health management in the entire value chain of a company are becoming increasingly important, including the Serious Accidents Punishment Act. In particular, it is essential that companies manage to protect human life and property from industrial accidents by eliminating harmful and dangerous factors and preventing accidents and occupational diseases so that workers can work in a safe and comfortable environment.	• Establish a board reporting and approval system for health and safety decision-making and key deliberations • Strengthen site safety management system • Expand support for partner companies safety management • Building a real-time disaster prediction (AI-based) system.	• Building a disaster prediction system and safety control system using AI to fundamentally solve major disasters - Based on real-time risk assessment (Casting & Forging BU pilots) - Auto Alert precautionary action obligations when red flags are detected **Achievements:** Improved DSRS (Doosan Group EHS Assessment) score (59.5 points in '22 → 69.5 points in '23)
2	**Business portfolio transition**	Developing and producing new green products and securing markets for them is an important competitive advantage in the green transition era. However, the process of discovering and capturing new markets involves a lot of effort and risks in the early stages of market formation. Therefore, risk management efforts for business transformation are becoming important, such as identifying various potential risks in the green market in advance and reflecting their social/geopolitical, environmental, and political impacts in the long-term business plans.	• Target the global market for large and nuclear power plants and SMRs based on major nuclear equipment design and manufacturing technology • Obtain market leadership through supply of high-efficiency gas turbines in domestic and international markets and development of hydrogen turbines • Diversify business by entering the renewable energy development business and cooperating with global partner companies on wind power projects • Secure business solutions for the entire value chain of hydrogen production, supply and utilization • Achieve 88% of 2028 Target for Eco-Friendly Order Intake	• Won large nuclear power plant orders (Shin-Hanul #3, 4) and continuously pursuing expansion of overseas exports (Czech Republic, Poland, etc.) • Korean combined cycle gas turbine order intake (Shinboryeong/Andong) • Entry into offshore wind (8 MW) market (Handong-Pyeonggdae wind farm) and expansion • Pursuing entry into new SMR markets, hydrogen/ammonia production (Changwon, Jeju) and power plant projects • Established Doosan GeoSolution to diversify business model through project development and operation and maximize synergies with eco-friendly businesses. • Established Doosan Recycle Solutions to pursue business of recovering lithium from batteries **Achievements:** 83% green orders, up 10% year-on-year
3	**Product quality with safety in mind**	Ensuring customer trust and promoting the highest levels of quality and safety by producing and purchasing high-quality products is one of the most essential business activities. For example, ISO 19443 is a nuclear quality management standard designed to improve safety and quality throughout nuclear business, which provides a guide for organizations to fulfill their product responsibility.	• Maintain and expand a total of 55 external certifications by business division to operate an organized and systematic quality assurance system according to global standards to strengthen and ensure quality • Digitize quality information from planning to results to improve progress visibility and execution of quality management • Executive engagement in frontline quality checks	• Promoting activities to eradicate quality issues related to nuclear product safety - Ensuring zero-defect quality through the operation of the Nuclear Quality Innovation Committee - Established a proactive quality assurance system (ISO 9001-certified) **Achievements:** Strengthened frontline quality inspections by the executives - MQLT[1] (conducted 484 times in '23) to focus on high customer/public sensitivity product and field quality issues
4	**Greenhouse gas emissions management**	Since the implementation of the Paris Agreement began in 2021, 169 countries around the world have been working to slow down global warming by establishing national greenhouse gas reduction targets (Nationally Determined Contributions : NDCs). South Korea has set a 40% reduction target, and businesses are expected to play an active role in reducing greenhouse gas emissions to meet this target.	• Set a 2030 reduction target of 14.5% from 2018 GHG emissions, with a goal of 2050 Net Zero	• Advanced GHG emissions management (product and project-specific carbon footprint management) • Improvement of casting & forging energy efficiency (5 kt reduction) through AI-based prediction of molten steel amount and application of thermodynamic simulator, and identification of plans to reduce greenhouse gas emissions by reducing the government electricity emissions factor[2] (1.6 million tons) • Plans established to transition to renewable energy for company's electricity consumption (0.7 million tons) **Achievements:** Achieved 2023 GHG emissions reduction target (7kt reduction. 5kt own and 2kt from credits)
5	**Ethics and compliance management**	Ethics and compliance management is an essential management element for corporate sustainability, and in recent years, it has become increasingly important to go beyond ethical compliance to include active social responsibility and environmental management practices. In particular, international organizations, including the OECD, have been attempting to standardize ethical management through the formation of the Ethics Rounds since the late 90s, and awareness of corporate ethics has been strengthening in Korea.	• Organize and build systems with the end goal of zero compliance risk • Drive pinpoint activities (Fair Trade and Anti-Graft Act)	• Compliance trainings for new executives and team leaders as part of building a compliance system to strengthen compliance management **Achievements:** Offered more ethics and compliance training - Conducted ethics training for 2,830 white-collar employees and 1,270 domestic blue-collar employees in Korea in 2023 - Conducted ethics training for employees of Doosan VINA and its partner companies among overseas subsidiaries

1) MQLT: Expansion of management's frontline inspection activities that began with safety inspections to quality, ongoing since '23
2) GHG emission factor based on the share of electricity generated by each energy source in the country

Sustainability Management System

Environmental | Social | Governance

Environmental

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(Responding to Climate Change)

Environmental Management

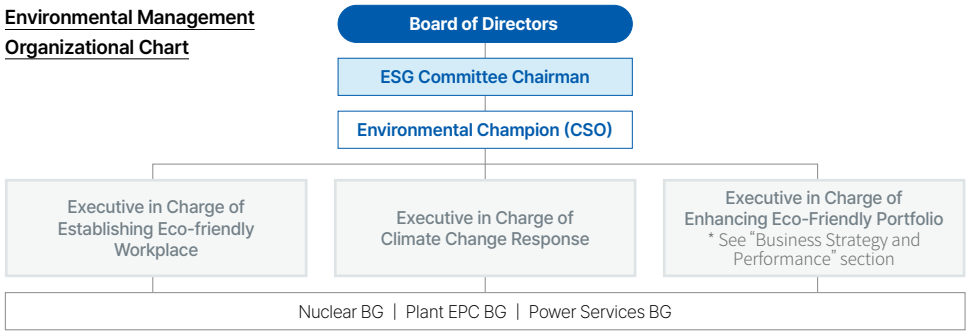
01 Governance

Doosan Enerbility analyzes the impact that our business activities have on the external environment, as well as the impact caused by external sustainability factors on our company and derives response measures accordingly. Governance policies and strategies for environmental management are established from the inside-out, focusing on the impact of our business activities on the entire value chain. We establish and implement environmental policies with environmental safety as the top priority in all our business activities, and transparently disclose related policies to stakeholders. We also comply with environmental laws and regulations pertaining to our business activities and develop eco-friendly technologies and products to reduce greenhouse gas emissions and reduce pollutant emissions. To ensure environmental safety at our workplaces, we have been systematically managing environmental performance in all processes at all sites by obtaining ISO 14001 certification for our Doosan Enerbility headquarters, Doosan Skoda Power (Czech Republic), Doosan Vina (Vietnam), and Doosan Lentjes (Germany) since 2010 and establishing an environmental management system (EMS). Domestic and overseas construction projects are subjected to effective environmental, health and safety management from a lifecycle perspective, and these achievements are continuously shared with the Board of Directors (BOD) and stakeholders.

Organizations in Charge

Through the ESG Committee, Doosan Enerbility establishes targets for each environmental indicator and manages the performance and reports key issues to the BOD. The Chief Strategy Officer (CSO), who is the environmental champion of the ESG Committee, establishes and approves the corporate-wide direction and goals, while the executives in charge of establishing eco-friendly workplace, responding to climate change, and strengthening the eco-friendly portfolio sets up and aligns the corporate-wide and Business Group (BG) goals and conducts regular performance reviews and provides feedback.

Environmental Management Organizational Chart



02 Strategy

Doosan Enerbility is committed to establishing an advanced environmental management system centered on people and nature, identifying the environmental impacts of its business activities and continuously promoting improvement activities to minimize the impact. Efforts are also being made to grow the business based on the environmental and energy sector accomplishments. To this end, we have established five strategic initiatives - developing eco-friendly products & technologies, contributing to building a resource-circulating society, establishing a green production system, establishing a preemptive response system to domestic and international regulations, and developing advanced & scientific environmental management systems and processes. In addition, we are actively promoting and strengthening environmental education, responding to environmental accidents, and preserving the environment in local communities.

Key Strategic Initiatives for Environmental Management

- Developing eco-friendly products & technologies
- Contributing to building a resource circulating society
- Establishing a green production system
- Establishing a preemptive response system to domestic & international regulations
- Developing advanced & scientific environmental management systems and processes

Provision of Environmental Training

Doosan Enerbility has established a learning & development plan and provides various training programs to raise the environmental awareness of its employees and the workers of partner companies. In 2023, Doosan Enerbility provided training to its employees, partner companies' workers, and related personnel on the use, storage and management of hazardous materials and accident response measures. In addition, to build a resource-circulating society, we regularly provide training to the representatives of our partner companies on waste management, including waste separation and collection.

Status of Environmental Management Training Programs

Course	Target	Description of Training
Hazardous Materials Workers Training	Employees and Partner companies	• Annual training program offered for hazardous materials(hazmat) workers (2,056 Doosan employees, 929 partner companies' workers at Changwon Plant)
Hazardous Materials Handlers/ Managers Training	Hazardous Materials Handlers and Managers (5 people)	• Management guidelines for hazardous materials storage and handling facilities, initial response in case of leakages, etc.
Training on Waste Separation Culture	Representatives from Partner companies (50 companies)	• Once a month • Company's waste separation & collection guidelines, improvement needs, designated waste types and waste separation standards, etc.

Response to Environmental Incidents

To prevent and minimize the environmental impact of spills of environmentally hazardous substances in nearby areas, Doosan Enerbility has established the Spill Prevention Guidelines and Environmental Accident Management Guidelines. In addition, in case of accidents at domestic and overseas plants, we have established a system to quickly organize an accident investigation team and establish an emergency reporting system to minimize the spread of pollution and damage. Ultimately, after accident response is completed, we utilize the accident cause flow chart to identify the root cause and establish measures to prevent recurrences to eliminate potential risk factors.

Local Community Conservation

Doosan Enerbility actively promotes local environmental conservation activities such as the Guisan Coastal Cleanup. In 2023, Doosan Enerbility formed a public-private partnership to clean up the Guisan-dong coastal area near its Changwon headquarters, and Doosan Vina (Vietnam), a subsidiary of Doosan Enerbility, conducted community cleanup activities with the Chung-Ang University Volunteer Corps.

Changwon HQ Guisan-dong Environmental Cleanup Initiative

Doosan Vina Environmental Cleanup Activities in Vietnam

03 Risk Management

Air Pollutant Management

Doosan Enerbility actively invests in process controls and facilities to reduce the generation of major air pollutants such as nitrogen oxides (NOx), sulfur oxides (SOx), and dust. As a result of our efforts, in 2023, we were in compliance with our total allowable emissions, emitting 137.8 tons (69%) of our 200-ton nitrogen oxide quota and 12.7 tons (76%) of our 16.8-ton sulfur oxide quota. In addition, we invested KRW 790 million to improve processes that generate large amounts of nitrogen oxides (NOx) (forging furnaces/heat treatment furnaces) in order to proactively respond to the total allowable emission limits in the 2nd Regional Air Management Basic Plan (2025-2029), and we will invest an additional KRW 4.65 billion in 2024 to install low-NOx burners. We monitor and manage air pollutant pollution levels in our production processes by periodically conducting self-measurements, and we monitor the impact on the local environment by measuring air pollution levels at the site boundaries and surrounding areas every five years.

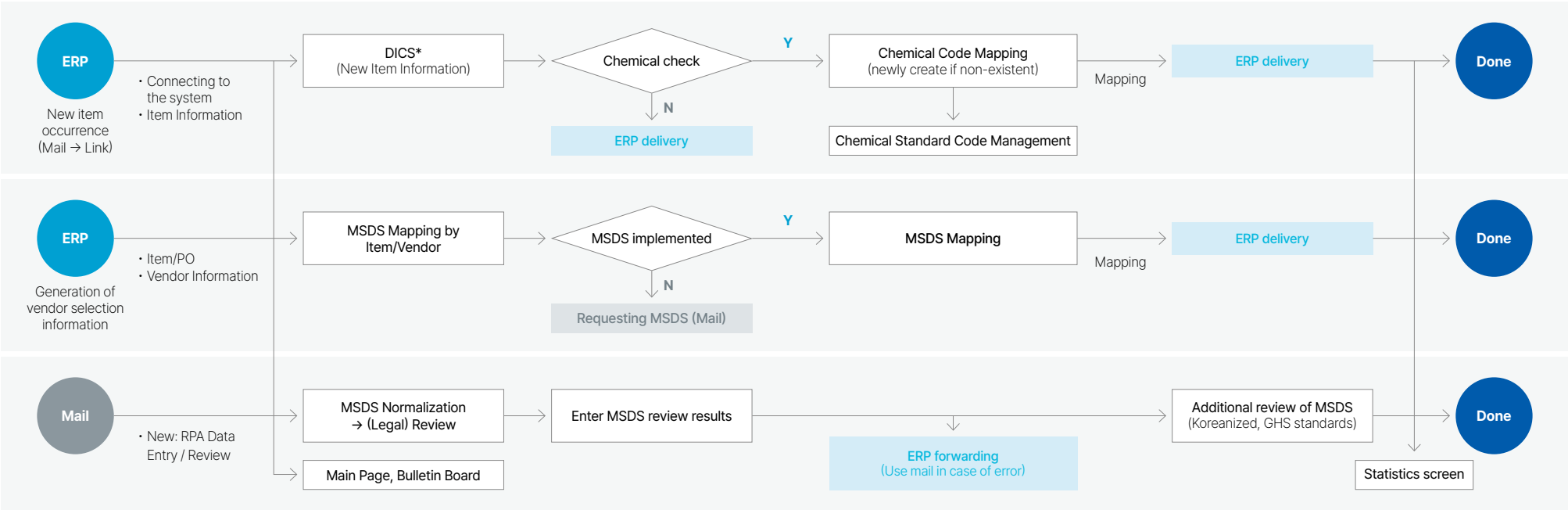
Hazardous Materials Management

Doosan Enerbility has built and operates the Doosan Chemical Information System (DCIS) in real-time. We digitize and efficiently manage the entire cycle of chemicals, from the purchase stage to the use stage, and strictly control all chemicals entering the workplace from the point of entry based on the principle of prior approval. In addition, we register and database chemical safety data sheets in the DCIS to comply with relevant laws and regulations (Chemical Substances Control Act, Occupational Safety and Health Act, Dangerous Goods Safety Management Act) and to provide the latest information on hazardous substances to those in charge in a timely manner.

To reduce the amount of hazardous chemicals we use, we strive to promote worker safety and minimize environmental impacts in our communities throughout our chemical processes. As part of these efforts, we set target amounts of hazardous chemicals and continuously manage and reduce their usage. In 2023, the Changwon plant used only 118.3 tons of the four major hazardous chemicals (sulfuric acid, caustic soda, 2-furanmethanol, and ammonia), equivalent to about 29% of its annual permitted usage (405.4 tons), contributing to the reduction of hazardous chemical usage.

* Ammonia: Received additional permit for permitted hazardous substances - ammonia (1.5 tons/year) at the Changwon plant to carry out the national project "Development of Ammonia-Mixed Burner" to reduce greenhouse gas emissions at the existing coal-fired thermal power plant.

Hazardous Chemical Management Process



Water Pollutant Management

Doosan Enerbility minimizes water pollution by managing major water pollutants discharged from our wastewater treatment plants to be lower than 40% of the legally permitted level of water discharge in the jurisdictions where they are located. In addition, we fundamentally eliminate the risk of spills by transferring all treated wastewater to the Dukdong Water Recycling Center, a public sewage treatment facility, to be reused as industrial water or released as water discharge. In accordance with our enhanced internal management standards, we check the wastewater treated once a week for the presence of pollutants and review its suitability. To monitor pollution levels around our business sites, we conduct semi-annual pollution analyses on the rainwater from drainage ditches around our business sites, as well as the seawater around the pier and Yongho Village to prepare for any possibilities of unexpected environmental damage to the local community. In addition, we are planning to improve the wastewater treatment process to prevent wastewater spills and ensure the safety and efficiency of the wastewater treatment plant operations. In 2023, we identified the scope of improvement to be pursued over the course of four months through consulting with an environmental construction agency and prioritized the improvement activities by item. As a result, we plan to invest a total of KRW 2.8 billion by 2027 to improve 17 items, which includes electrical systems, machinery, and tanks.

Waste Management

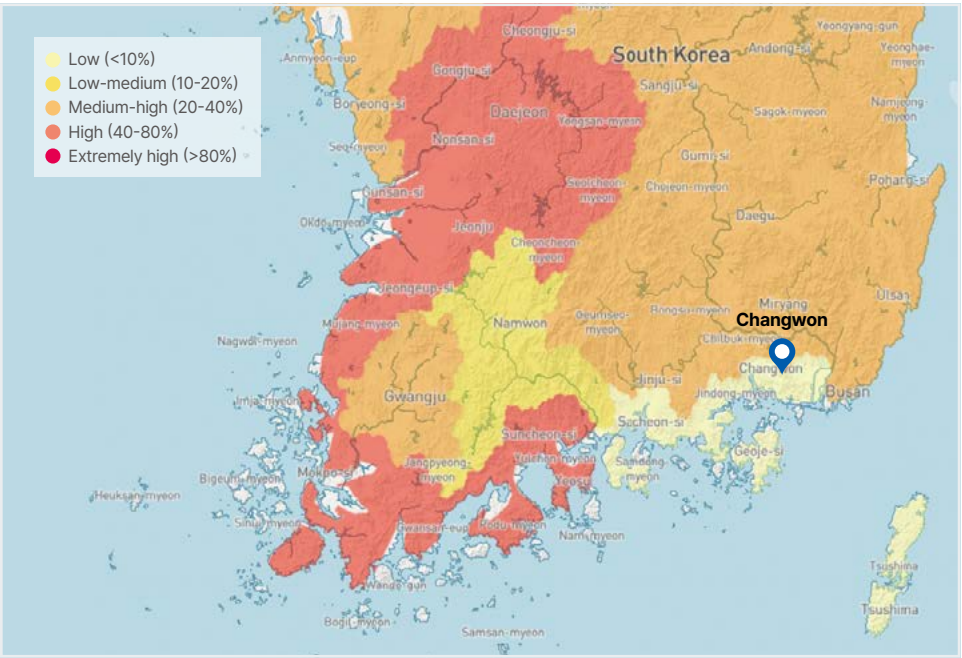
In order to contribute to building a resource-circulating society, Doosan Enerbility is actively responding to the Act on Promotion of Transition to Circular Economy and Society by striving to curb waste generation and establishing a corporate culture that encourages waste separation and collection. In particular, we have established and are implementing a strategy focused on increasing recycling and reducing waste emissions by avoiding conventional disposal methods based on incineration and landfills. Every year, we analyze the types of waste generated at our business sites, the sources, relevant organizations, amounts, and treatment methods, and use the data for improvement. In 2023, we achieved a waste recycling rate of 91.8% at the major worksites, and reused 34.3% of all raw materials, such as recovered iron and processed chips generated in the steelmaking process, contributing to resource recycling. Through the waste assessment and analysis process, we have developed and implemented recycling measures for wastewater sludge that was previously treated via landfills. In addition, we are working to minimize incineration/landfill waste by identifying new recycling companies and actively identifying items that can be recycled to improve the recycling rate. We conduct regular inspections of waste disposal companies through on-site inspections every year to closely monitor legal disposal. In 2023, we also conducted on-site inspections of high-risk waste contractors to verify the legal disposal of waste before contracting with them. We also provide presentations and training sessions to organizations identified as being weak in this area to improve the overall recycling rate.

Water Management

Doosan Enerbility recognizes the importance of water resources in protecting the environment and reducing pollutant emissions, and together with our employees, partner companies, customers and local communities, we strive to reduce water use and systematically manage water pollutants. The Company uses the World Resources Institute's "Water Risk Atlas" to identify water risks, and although the analysis of Changwon region in , Gyeongsangnam-do Province, where our core operations are located, revealed the risk was of the lowest level (<10%), the Company is nonetheless measuring and analyzing water usage by installing flow meters at major production facilities to minimize water usage and wastewater quality risks, and is considering activities to reduce water usage and expand reuse. In addition, we are planning to install remote meter reading flow meters to check on water usage in real time, replace old pipes, and invest in facilities to ensure continuity of wastewater treatment. To recycle water, we use the groundwater at our Changwon headquarters and construction sites for drinking water, showers, toilets, restaurants, and other daily needs, as well as for washing. In 2023, groundwater usage totaled 60,307 tons.

In addition, to systematically manage wastewater generated at the business sites, we analyze the characteristics of the manufacturing processes and categorize the water into dirty water, oil-containing wastewater and acid & alkali wastewater. The wastewater is transported through designated pipes and discharged to public sewage treatment plants after undergoing physical/chemical treatment to manage the risks. To this end, we have strengthened the inspection of pollutants to a weekly inspection and established targets for performance management.

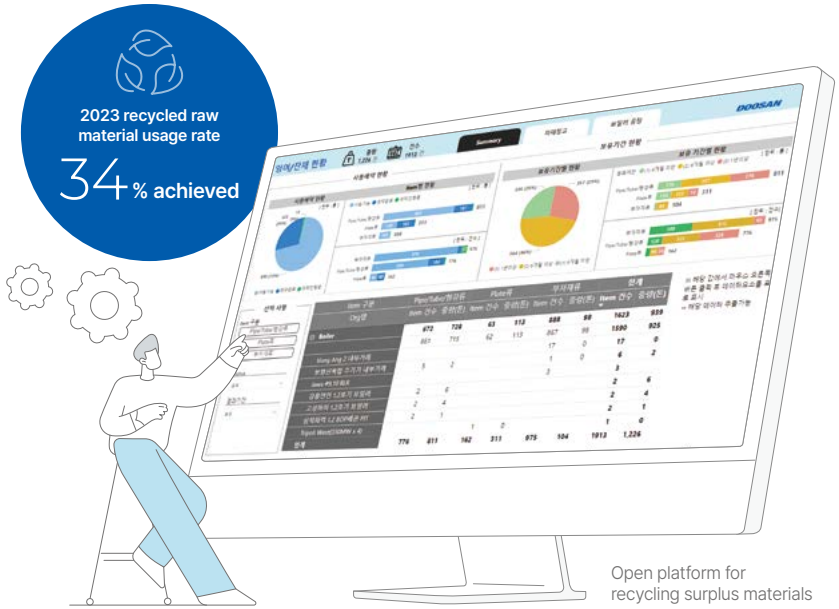
Changwon Headquarters Water Resource Risk Map



Raw Material Management

Based on its green management policy of developing products aimed at preserving the environment and reducing pollutant emissions, Doosan Enerbility is promoting a green production system and contributing to building a resource-circulating society as its key strategic initiative. To ensure the smooth provision and supply of raw materials, we have established material management regulations to facilitate the storage and management of raw materials at each business site, as well as import and export customs clearance regulations, and origin management procedures, and we are also striving to use sustainable raw materials.

When purchasing raw materials, we purchase recycled scrap metal designated by the government and apply it in our manufacturing, and we achieved a performance of approximately 19.8% in 2023 against the target of at least 10% of such purchases, and reported our performance to the relevant authority. We also manage the regions where our production sites are located, and purchase verified raw materials to reduce risks such as exposure to pollutants. To expand the use of recycled raw materials, we collect unusable materials, discarded products, and waste materials generated at each business site and production facility, analyze their composition, and reuse them for products of similar strength, thereby contributing to resource circulation and the reduction of energy consumption. Through these activities, we achieved a 34% recycled raw material usage rate in 2023, utilizing approximately 68,652 tons in total. We recently established the "Open Platform for Recycling of Surplus Materials" to promote the recycling of surplus materials across the company. The platform has been digitized to recycle surplus materials before purchasing them, and users can search for desired materials in real time and quickly apply them to production. In 2023, about 520 tons of surplus materials were recycled, equating to a recycling rate of about 52%. The recycled materials were applied to overseas subsidiaries in addition to domestic worksites, and a company-wide campaign was conducted to promote recycling and an online presentation was held to explain about the process.



Open platform for recycling surplus materials

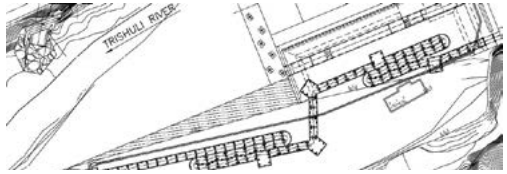
Biodiversity Management

Doosan Enerbility is committed to effective biodiversity management from a life-cycle perspective for its domestic and overseas operations. To analyze the dependence and impact on biodiversity as recommended by the TNFD, we utilize the ENCORE tool to analyze the characteristics of our industry and identify dependencies, impact drivers, and hotspot areas to manage ecosystem impacts and risks and implement necessary mitigation/ enhancement measures.

We also establish environmental, health and safety policies and operational management guidelines to manage risks through the conservation of plant and animal resources. In particular, we ensure that plant/ animal resources, and wildlife species that are mentioned as being significant in the environmental impact assessment of domestic and overseas business sites are not harmed by any project activities, and if it is inevitable that plant/ animal resources and wildlife species at the target site are to be affected by construction activities, we seek to consult with relevant organizations to take necessary measures based on the countermeasures presented in the environmental impact assessment. We proactively respond to biodiversity conservation by carefully analyzing and identifying relevant risks through surveys and other means prior to project implementation, and by preparing pre-project environmental impact assessment reports to disclose detailed information on protected species and fulfill our obligation to take measures to protect the local ecosystems. In 2023, we conducted a survey of protected species at our major business sites, and a total of 87 species were identified. Since 2022, we have also been participating in the Companion Beach Project, a program established to preserve the marine ecosystem, and were able to get the Guisan coastal area near our Changwon headquarters designated as a companion beach, and received the Minister of Oceans and Fisheries Award for our contributions to reducing marine waste. This year, we conducted a total of three cleanup activities at Guisan Beach as a community biodiversity and forest conservation activity, and our Vietnamese subsidiary Doosan Vina also carried out community forest restoration activities by planting about 1,000 trees along the perimeter of the business site.

Environmental Conservation Activities at Changwon Headquarters and Doosan Vina Local Communities

Biodiversity Risk Identification and Response Practices

Project Name	Risk Analysis	Risk Correspondence	Cases	Before	After
Ukudu CCPP	**Protected species conservation** • Existence of an endemic snail (Partula Radiolate) found only in Guam • Populations are declining due to habitat destruction	• Prior to construction, a Certified Biologist pre-checks work zones for protected species presence • Proactive actions include - Marking the area with the ribbon - Protecting the habitat by installing barriers • Certified biologist will be on site during construction to monitor protected species and habitat for damage	Protected species (endemic snails) conservation activities		
	Preventing the introduction of invasive species • Species that are not native to Guam's ecosystem, which would cause negative impacts to existing ecosystems if introduced.	• Cleaning mud and dirt from construction equipment tracks (or tires) to prevent the spread and introduction of invasive species in construction zones			
Upper Trishuli1 HPP	**Invasive plant introductions and spread in national parks** • Risk of disturbance to Langtang National Park ecosystem due to introduction of invasive species during construction vehicle and equipment movements	• Conducting a sweep of passing vehicles at project entrances to prevent the introduction of invasive species	Fish Ladder reflection drawing to prevent ecosystem degradation		
	Damage to river ecosystems • Upstream and downstream migration of fish species in the Trishuli River and loss of habitat structure due to dam construction	• Conducting a preliminary survey of endemic fish species in the Trishuli River • When designing a dam, accounting for fish ladders • During dam construction, enforcing fish collection, transportation, and release			
Changnyeong to Milyang Expressway	**Removing and suppressing ecosystem-disrupting plants** • Risk of disruption of native plant communities due to the presence of invasive plants (prickly lettuce) on site	• Weed control to remove invasive plants, suppress seed production, and promote native plant recovery	Installing fencing and signage for wildlife protection		
	Protected species conservation • On-site confirmation of breeding of Endangered Wildlife Species Class II, long-billed ringed plover	• Installing perimeter fencing and protective signage to protect the breeding area for hatchlings and future generations			

Biodiversity Dependency and Impact Analysis Results

Dependency

Dependent Activities	Related Metrics	Related Natural Assets	Risk Level
Enables Production Process	• Soil		Very Low
	• Ventilation		Very Low
	• Water Flow Maintenance		Medium
Mitigates Direct Impacts	• Bio-remediation		Low
	• Filtration		Low
	• Mitigates sensory impact		Very Low
Protection from Disruption	• Environmental regulations		Medium
	• Flood and typhoon protection		High
	• Soil stabilization and erosion control, pest control		Very Low

Impact

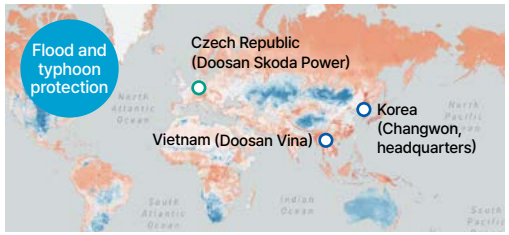
Impact Driver	Related Production Activities: Establishing Infrastructure	Related Production Activities: Maintenance	Related Natural Assets	Risk Level
Water Use	●	●	Atomosphere, Habitats	High
Terrestrial Ecosystem Use	●	●		Very High
Freshwater Ecosystem Use	●			High
Marine Ecosystem Use	●		Land geomorphology, Minerals	Very High
GHG Emissions	●	●		High
Non-GHG Air Pollutants	●	●	Ocean Geomorphology, Soils and sed ments	High
Water Pollutants	●	●		Medium
Soil Pollutants	●	●		High
Solid Waste	●		Species, Water	Medium
Disturbances	●			High

Hot Spot

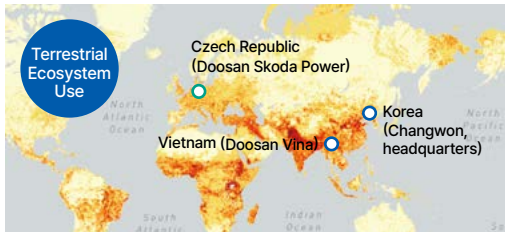
Analyze the hot spot regions identified as "high risk" through the Dependent Activities and Impact Driver indicators

High-Risk	Medium Risk
South Korea, Vietnam	Czech Republic

Dependencies



Impact Driver



Status of Biodiversity Protection in Project Areas

Region	Project Name	Number of Protected Species	Protected Species Details
Korea	Galcheon-Gasu Road Extension Project	8 species	• Prionailurus bengalensis, Antigone vipio, Aix galericulata, birds of prey (Haliaeetus albicilla, Circus cyaneus, Falco tinnunculus), Kaloula borealis
	Gwangyang Industrial Water Supply	4 species	• Lutra lutra, Prionailurus bengalensis, Falco tinnunculus, Clithon retropictum
	Highway Construction Office between Changnyeong and Milyang	13 species	• Quercus acutissima : 493 trees • Fertile soil : 2,526m^3 • Lutra autosome, Prionailurus bengalensis, Aix galericulata, Haliaeetus albicilla, Accipiter soloensis, Accipiter nisus, Aegypius monachus, Falco tinnunculus, Charadrius placidus, Kaloula borealis, Mauremys reevesii, Elaphe anomala
	Hamyang-Changnyeong Expressway	1 species	• Quercus acutissima : 99 trees • Fertile soil : 900m^3 (400m^3+500m^3)
	Honam High Speed Railway Phase 2 Zone 3	16 species	• Fertile soil : 1,976m^3 • 20 Abies holophylla, 70 Camellia japonica, 25 Quercus acutissima, 400 Rhododendron yedoense, 3,000 Rhododendron indicum, total 3,515 trees • Lutra redolence, Prionailurus bengalensis, Falco tinnunculus, Anser serrirostris, Pandion haliaetus, Charadrius placidus, Strigiformes, Ciconia boyciana, Elaphe schrenckii, Kaloula borealis
	Gimpo CHP Plant	11 species	• Prionailurus bengalensis, Platalea minor, Haliaeetus albicilla, Anser serrirostris, Falco tinnunculus, Accipiter gentilis, Tadorna ferruginea, Pelophylax chosenicus, Rana coreana, Kaloula borealis, Dinodon rufozonatum
	Construction of Samcheok Thermal Power Plant 1 and 2	7 species	• Lutra lutra, Pteromys volans, Falco tinnunculus, Accipiter nisus, Prionailurus bengalensis, Pungitius sinensis, Cottus hangiongensis
	Unnam-Anjwa Switching Station Transmission Line	18 species	• Amtae Island : Platalea leucorodia, Ciconia boyciana, Falco tinnunculus, Accipiter gularis, Pandion haliaetus • Abhae Island : Anser serrirostris, Platalea leucorodia, Egretta eulophotes, Falco tinnunculus, Falco peregrinus, Circus cyaneus, Pandion haliaetus, Haematopus ostralegus, Numenius madagascariensis, Chroicocephalus saundersi • Muan-Mokpo Coast : Anser serrirostris, Platalea leucorodia, Ciconia boyciana, Falco tinnunculus, Circus spilonotus, Circus cyaneus, Falco peregrinus, Accipiter gentilis, Haliaeetus albicilla, Grus monacha • Muan Reservoir : Anser fabalis, Ciconia boyciana, Platalea leucorodia, Falco tinnunculus, Pandion haliaetus, Haliaeetus albicilla, Circus cyaneus, Accipiter nisus, Bubo bubo
	Eumseong Natural Gas-Fired Power Plant Construction	8 species	• Prionailurus bengalensis, Lutra lutra, Pteromys volans, Aix galericulata, Falco tinnunculus, Falco subbuteo, Charadrius placidus, Cybister japonicus
United States (Guam)	Ukudu CCPP Project	1 species	• Partula Radiolata (snail endemic to Guam)

04 Metrics and Targets

For each strategic activity, Doosan Enerbility has established key detailed management indicators and short, medium and long-term targets that affect the environment. The mid and long-term targets are established in consideration of government regulations, internal and external environments, and stakeholder needs. We have established an action plan and manage the performance annually, using key metrics including greenhouse gas emissions, waste recycling, wastewater emission concentrations, etc.

Environmental Management Indicators, Goals and Performance

Metrics	Mid-to-Long Term Goals	2023 Goals	Actual Achievements in 2023
Greenhouse gas emissions	• 30 years: **208,000** tons • 50 years: **Net Zero**	• Scope 1: **110,000** tons • Scope 2: **140,000** tons	• Scope 1: **106,000** tons • Scope 2: **140,000** tons
Energy usage	• 30 years: Fossil fuel **1,475**TJ Electricity **2,520**TJ	• Fossil fuel: **1,835**TJ • Electricity: **2,970**TJ	• Fossil fuel: **1,752**TJ • Electricity: **2,915**TJ
Waste recycling rate	• 30 years: **95**% or more	• **92**%	• **91.8**%
NOx, SOx emissions	• 30 years: Managing below government quotas	• **209** tons	• **150.5** tons
Wastewater discharge concentration	• 30 years: Managing below government allowances	• **40**%	• **18.0**%
Hazardous chemical usage	• 30 years: Managing below government allowances	• **405.4** tons	• **118.3** tons
Green purchases	• Schedule purchasing activities to align with internal product purchasing plans	-	• KRW **73.3** billion
Environmental investments[1]	• Schedule investment activities in line with internal investment plans	• KRW **2.32** billion	• KRW **790** million

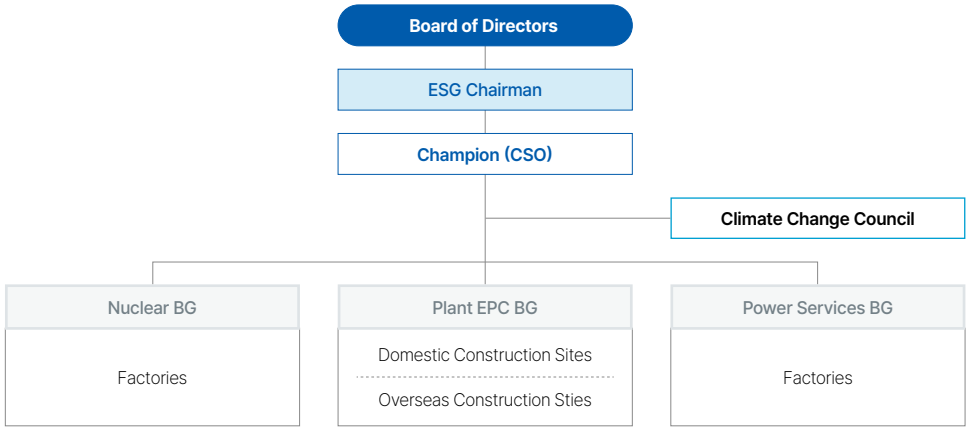
1) Not yet funded investments will be funded from 2024 onwards

Climate Action
(Responding to Climate Change)

01 Governance

To respond to climate change, Doosan Enerbility is establishing and managing governance systems, strategies, and action plans through climate change forecasts and financial analyses centered on the impact of the external environment on the company using the outside-in approach.
In order to proactively identify and systematically respond to climate change-related risks and opportunities, the company operates the ESG Committee, which includes top decision makers and key decision makers, as a body that analyzes risks and opportunities for climate change response, inspects climate change response performance such as greenhouse gas emissions, and makes decisions on future initiatives. The ESG Committee meets on a quarterly basis to examine major ESG issues, including climate change and greenhouse gas emissions, and reviews plans and progress.
Matters that may have a significant impact on climate change response are submitted to the Board of Directors for decision-making.

Organizations for Responding to Climate Change



Role of Response Organization

Doosan Enerbility's Chief Strategy Officer (CSO), the Champion for the Environmental pillar, checks on the task plans and performance of each Business Group's relevant organization for the environmental area, such as business portfolio transformation, greenhouse gases and environmental pollutants, and reports on major issues to the ESG Chairman (COO, Chief Operating Officer) and reflects this in the decision-making.

Climate Change Council

In order to respond to climate change and implement the GHG reduction roadmap, Doosan Enerbility has formed the Climate Change Council to respond to domestic and international regulations, improve energy efficiency at business sites, secure GHG emission credits, and enhance the carbon management system. In 2023, we participated in the domestic Win-Win Program to promote external GHG emission credits and conducted company-wide reduction activities to reduce indirect emissions (Scope 2) at the Changwon Plant.

02 Strategy

Based on the governance for climate change response, Doosan Enerbility conducts materiality assessments and identifies climate change risks and opportunities through the climate change management process to respond effectively. Our climate change management process includes the following steps: risk/opportunity identification, gatekeeping, assessment measurement, response, and reporting to analyze and systematically manage the impact of each factor on the business.

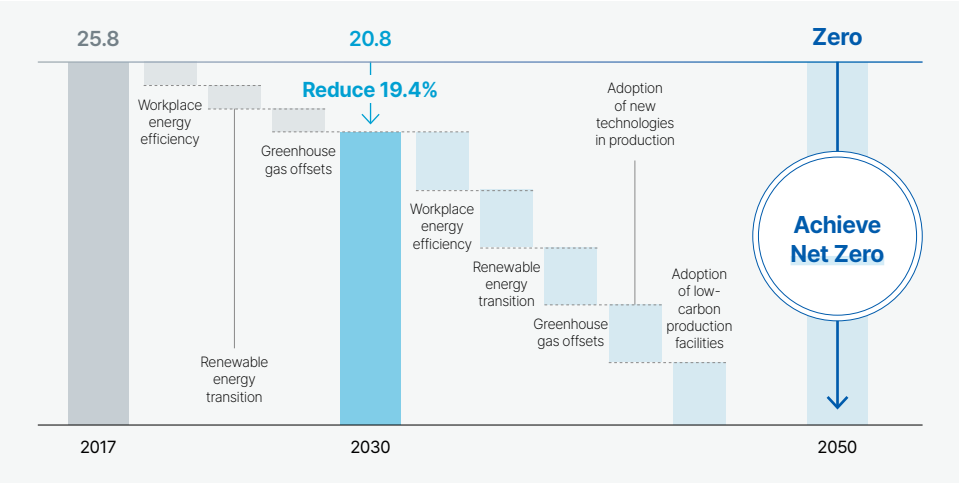
Climate Change Risk & Opportunity Management Process

Mid-to-Long Term Strategy for Carbon Neutrality

Doosan Enerbility has established a detailed roadmap to achieve the 2050 Net Zero goal, the 2030 interim goal, and a 19.4% reduction in carbon emissions compared to 2017 emissions under the '2050 Carbon RE:Set' strategy, which is a focus area of our ESG Vision. To achieve the 2030 goal, we are promoting the use of renewable energy, external reduction activities, and improving energy use efficiency at the Changwon plant, and we plan to achieve the 2050 net-zero goal by focusing on the introduction of new production technologies and low-carbon production facilities at the Changwon plant. We are implementing business strategies and investments to effectively reduce not only Scope 1 and 2 carbon emissions generated within the company's business sites, but also Scope 3 indirect carbon emissions generated within the value chain by accelerating the transition to a portfolio of growth driver businesses centered around eco-friendly energy. In 2023, we reduced about 400 tons of GHG emissions through the replacement of aging cooling equipment, air dryers, and electric furnace coolant pumps at steel mills and the efficient operation of facilities. In addition, we are operating a Climate Change Council to quickly respond to domestic policies and global regulations and reflect the needs of stakeholders.

2050 Carbon Neutrality Roadmap

(Unit: 10,000 tons)



Strategy for Transition of Business Portfolio

In an effort to respond to climate change and expand the use of clean energy, Doosan Enerbility is building a business portfolio centered around four Growth Driver Businesses -gas turbines, next-generation nuclear power, renewable energy, and hydrogen- based on a multifaceted environmental analysis of the domestic and international energy markets and the company's internal capabilities. Business expansion is also being pursued through concentrated investments. We are increasing R&D investments related to capabilities of these growth driver businesses and new low-carbon projects. For gas turbines, we are focusing on the development of high-efficiency large power plant equipment and hydrogen turbine technology. As for next-generation nuclear power, we are pursuing detailed strategic initiatives, including the development of innovative technologies and becoming a global SMR Foundry.

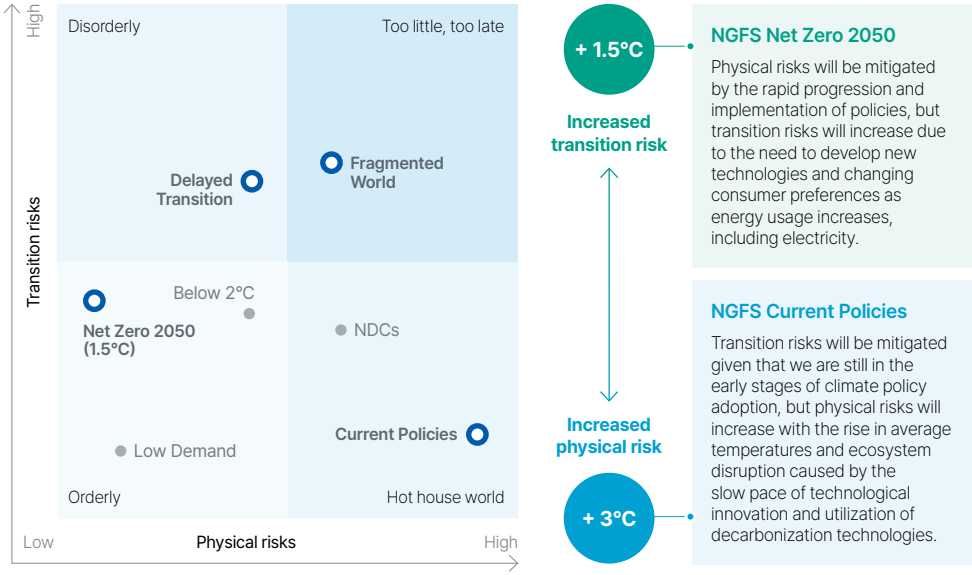
03 Risk Management

To manage climate change impact-related risks and opportunities that may affect our business, Doosan Enerbility analyzes scenarios such as NGFS, RCP, IEA, and NDC, and prepares and implements countermeasures by categorizing climate change risks and opportunities in terms of legal and regulatory framework, technology, market, reputation, timeframe (short-term 2025, mid-term 2030, long-term 2050), and scope (company, upstream, downstream) from the perspective of business strategy and finance. The major climate change risk and opportunity issues for the company selected through the 2023 materiality assessment include climate change litigation, strengthening carbon regulations, low-carbon product development, and typhoons/floods.

Climate Scenario Analysis

For scenario analysis of physical risks and transition risks, Doosan Enerbility followed the recommendations of the TCFD, the framework for climate disclosure, to identify potential risks and opportunities arising from climate change. For scenario analysis of physical risks and transition risks, we utilized the scenario portal of the internationally recognized Network for Greening the Financial System (NGFS) to ensure the reliability of the scenario selection process. For transition risk, we used the NGFS Delayed Transition (1. 6°C increase scenario) and Net Zero 2050 scenarios, and for physical risks, we utilized analyses from NGFS Current Policies and Fragmented World. In addition, for information on physical risks at domestic plants, we collected information on climate change projections for Changwon, Gyeongsangnam-do and Seongnam-si, Gyeonggi-do, where our major plants are located, based on observations and scenarios provided by the Korea Meteorological Administration and local governments.

Climate Scenario Analysis



Transition Risk

Transition Risk Management

At the COP28 held in 2023, the importance of achieving carbon neutrality by 2050 was reaffirmed, and the GST decision included the phrase "transitioning away from fossil fuels in the energy system," with the agreement being made to attain more than triple the renewable energy capacity and double the energy efficiency by 2030. Accordingly, in the Biennial Transparency Report to be submitted at the end of 2024, the participating countries agreed to reflect the results of the first GST and to strengthen the "2035 NDC" to be submitted in 2025 to meet the 1.5°C target. In the case of Korea, there are discussions about the need to accelerate the timing of emission reductions, in addition to improving energy efficiency and adjusting the energy source mix agreed upon at the COP28. Thus, various policy and corporate-level efforts are required to achieve the NDC reduction targets, while enhancing the economic effects.

Doosan Enerbility assessed its energy business, which is expected to be significantly affected by climate change, based on scenarios set by the IEA for projections of global energy consumption and greenhouse gas emissions based on climate change. We analyzed the impact on our business using a 1.5°C scenario (NZE2050) and a 2.6°C scenario (STEPS) in which net-zero is achieved by 2050. However, we recognize that these projections may change depending on the outlook for climate change and global response efforts, and accordingly, the company will update scenarios set by international organizations, such as the IEA, and reflect them in a timely manner in our company's business plans.

Addressing Transition Risk

Doosan Enerbility recognizes that the transition to a low-carbon economy is essential in securing sustainability for companies operating in the energy business, and analyzes and responds to business risks and opportunities based on IEA scenarios (B2DS, NZE 2050, APS, etc.) and national NDCs, using the categories of legal/regulatory framework, technology, market and reputation, and analyzes and responds to business risks and opportunities from a mid-to-long term perspective. Considering the results of the IEA B2DS and NZE 2050 scenario analysis, we are establishing and implementing core strategies to accelerate the transition to an eco-friendly portfolio, focusing on four areas: renewable energy, gas turbines, hydrogen, and next-generation nuclear power plants. We have also established a 2050 carbon neutrality goal based on the IEA APS and NDC scenarios, and set an interim goal of reducing emissions by 19.4 percent from the 2017 emissions level by 2030. We are striving to effectively reduce carbon emissions through legal/regulatory responses, such as carbon border tax and taxonomy, as well as energy efficiency improvements at our plants to produce low-carbon products. We have analyzed the financial impact of emissions trading and CBAM response costs based on the outlook for the price of carbon credits. In 2023, we provided training/lectures by legal experts for the ESG Committee to respond to greenwashing risks, and implemented experts' review and advice on ESG policies, including environment-related policies.

Transition Risk and Opportunity Analysis Results

Transition Risk	NGFS	IEA
	'Delayed Transition' and 'Net Zero 2050'	B2DS, NZE 2050, APS/NDC, STEPS

Separation	Viewpoint	Issues	Risk	Opportunities	Response Direction	Applicability Period	Coverage	Financial Impact
Legal/ Regulatory	Present	Climate change litigation	Reputational damage and increased litigation risk due to increased ESG regulation, including greenwashing	Elevate reputation by building trust via transitioning to low-carbon products	Transparent climate disclosure and carbon neutrality and sustainable operations	Mid-term	Company + Upstream + Downstream	High
	Future	Carbon Pricing	Increased taxation and administrative costs due to the introduction of national carbon-related tariffs such as CBAMs	Earn tax benefits and other incentives for using renewable energy and reducing carbon	Manage carbon emissions reduction and fulfill carbon neutrality roadmap	Mid-term	Company + Upstream + Downstream	Mid
Technology	-	Developing low-carbon products	Lower market competitiveness and increased uncertainty due to failure to develop low-carbon technologies or fierce competition	Gain a competitive edge by developing low-carbon technologies to secure return on investment and grow revenue	Strengthening capabilities and investments in four growth businesses (gas turbines, next-generation nuclear, renewables, and hydrogen)	Long-term	Company + Downstream	High
Market	-	Changing customer behavior	Increasing market preference for low-carbon energy reduces demand for traditional products	Shift in customer purchasing to low-carbon products increases business opportunities and revenue for nuclear, wind, etc.	Transforming business portfolio to supply carbon-free power plants and equipment	Long-term	Company + Downstream	High
Reputation	-	Changing customer preferences	Costs for addressing restrictions on existing business investments and operations due to strengthened demands for climate change response	Enhancement of brand value due to increased social awareness of low-carbon energy and products	Expand green business models, including resource circularization	Long-term	Company + Upstream + Downstream	High

Physical Risk

Physical Risk Management

To analyze physical risks from typhoons, floods, and rising sea level, Doosan Enerbility utilized the 'Current Policies' and 'Fragmented World' analyses by conducting the Green Finance Council (NGFS) scenario stress test. In addition, to measure physical risks at domestic and overseas sites, we used four RCP scenarios (2.6, 4.5, 6.0, and 8.5), which are concentration pathways defined by the Intergovernmental Panel on Climate Change (IPCC) assessment report, to measure the scale and impact of damages. We evaluated scenarios for Korea and Vietnam using the NGFS Climate Impact Explorer tool to measure the scale of damage caused by typhoons and cyclones, which have been selected as a material climate risk issue for Doosan Enerbility. We also analyzed risks and facility vulnerabilities due to the sea level rise and extreme temperatures using the IPCC's Sea Level Projection Tool and VESTAP vulnerability analysis. Based on RCP 8.52050, the average annual precipitation is expected to increase by 1.1°C, the maximum temperature by 1.0°C, and the precipitation intensity by 1.2mm/day compared to the present day, in the Ungnam-dong neighborhood of Changwon-si, Gyeongsangnam-do, where the company's main business site is located.

Addressing Physical Risks

Doosan Enerbility conducted an analysis of typhoons/floods and sea level rise derived from the process of identifying climate change risks/opportunities, and while the vulnerability to typhoons/floods in Changwon, Gyeongsangnam-do, where our core business site is located, is lower than the standard level, as the frequency and intensity of extreme weather conditions, such as heavy rains and heat waves, are increasing due to rising global temperatures, we have prepared a response system and are implementing detailed activities, and have analyzed and planned facility investment costs incurred by typhoons and earthquakes.

In 2023, we prevented heat illnesses caused by heat waves at seven construction sites across the country by attaching heated stickers that change color depending on the outside temperature and serving iced coffee tea. In addition, we installed a water barrier in flood-prone areas where stormwater flows in during heavy rains at our Changwon headquarters, and installed CCTV for real-time water level observation at drainage boxes. In addition, we replaced factory roofs that are at risk of collapse during typhoons and conducted seismic performance evaluations for multi-use facilities. In 2024, we plan to invest in expanding drainage ditches to prevent flooding in terrains with high elevation differences from the sea level.

Heat illnesses prevention program

Installing a floodwall in flood-prone areas

Physical Risk and Opportunity Analysis Results

Physical Risk	NGFS	RCP	Wind/Cyclone Impacts	Impact of Rising Sea Level
	'Current Policies' and 'Fragmented World'	2.6, 4.5, 6.0, 8.5	NGFS Climate Impact Explorer	Climate Central Coastal Risk Screening Tool and IPCC Sea Level Projection Tool

Separation	Issues	Risk	Opportunities	Response Direction	Applicability Period	Coverage	Financial impact
Acute	Typhoon/ Flood	Increased loss of property, plant and equipment and operational activities due to natural disasters such as typhoons and floods	Gain a competitive edge with reliable supply of products and services by strengthening operations management	Monitor weather changes to prepare for workplace response and invest in facility improvements	Short-term	Company + Upstream + Downstream	Middle
Chronic	Rising sea level	Increased costs due to sea level rise, including changes to operational processes and improvements to worker conditions	Increase revenue for products that help with climate change mitigation and recovery, such as nuclear, wind power, etc.	Monitor sea level rise to prepare for site flooding and invest in facility improvements	Long-term	Company + Upstream + Downstream	Middle

04 Metrics and Targets

As climate change response is recognized as a major opportunity and risk for the company's sustainability management and its impact is increasing, we have set KPIs for key executives and employees, including the C-level, such as expanding the performance of the eco-friendly business portfolio (contributing to the overall reduction of GHG emissions), strengthening the management of partner companies' GHG emissions, preparing carbon emission management plans for each of the company's products, and setting quantitative GHG reduction targets. This is in line with the company's Management by Objectives (MBO) scheme, which is used to evaluate performance annually and provide incentives such as performance bonus and promotion. In particular, this year, we conducted company-wide carbon reduction activities for plants with high GHG emissions and provided awards and monetary rewards to those who recorded outstanding performance in reducing GHG emissions.

2023 Company-wide ESG carbon reduction activities

Managing Greenhouse Gas Emissions

Through the Carbon Emission Management System (CEMS), Doosan Enerbility sets GHG reduction targets for each business site, Changwon Plant, construction site, and department by linking them to the national GHG emission quota and internal carbon neutrality targets, and monitors the GHG emissions arising from energy use in real time every month to achieve such targets.

In 2023, we reduced the GHG emissions of the major manufacturing teams by using AI to optimize the furnace work hours and improving the work methods in the manufacturing process. We also participated in the government's Win-Win Program to provide emissions reduction facilities to small and medium-sized enterprises and continuously secured GHG emission credits since 2022. For this year, we set targets for GHG emissions reduction in the electricity sector (Scope 2) for 16 sites identified as having high GHG emissions at our Changwon headquarters and implemented team-level activities for achieving these targets. We reduced approximately 300 tons of CO_2 through these activities, and next year, we plan to further strengthen our energy efficiency improvement activities by expanding the target group. In order to respond to climate change risks and increase opportunities, we are developing and implementing initiatives, such as expanding and upgrading the Scope 3 categories, establishing carbon emission calculation plans for each product, and establishing a GHG management system for subsidiaries.

Managing Energy Usage

Doosan Enerbility establishes and implements action plans focusing on specific tasks to achieve energy reduction goals and carbon neutrality in accordance with the mid-to-long term energy management plan. Every month, energy usage (electricity, city gas, by-product oil, etc.) is aggregated and analyzed at the Business Group/factory level, shared with each organization, and used as data for improvement. The energy management department identifies energy-saving activities at the beginning of each year and monitors the real-time performance of each activity. We are also planning investments to apply renewable energy and improve energy efficiency by installing solar panels on the roof of our Changwon headquarters.

In 2023, we operated the Energy Efficiency Management Council every month in collaboration with manufacturing plants to closely review management methods and induce energy savings in response to fluctuations in city gas prices and increases in electricity costs. In addition, we generated KRW 120 million in annual revenue by proactively managing the electricity use load through participation in the electricity exchange market. Every month, we publish an energy report to raise energy awareness, notifying each factory/team of its performance and making voluntary reduction efforts.

In addition, this year, we have reduced electricity consumption by 22 TJ through activities such as introducing high-efficiency equipment (air conditioners, air dryers), applying seasonal adjustments in the management of compressed air supply pressure, and replacing LED light bulbs, and provided presentations and training on energy and greenhouse gas reduction activities to employees of organizations that use a lot of electricity.

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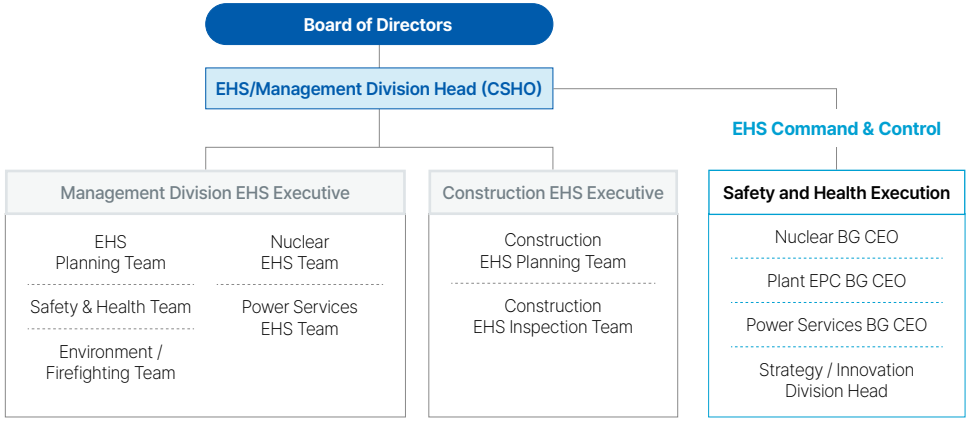
Safety and Health Management

01 Governance

Doosan Enerbility recognizes the importance of promoting the health of its employees through on-site safety management at its business sites. We strive to create an environment where all employees and partner companies can work with confidence and strengthen our safety and health management system. Accordingly, the company has appointed the head of the EHS/Management Division as the Chief Safety and Health Officer (CSHO), and operates the Occupational Safety and Health Committee to deliberate and decide on major matters related to occupational safety and health. In addition, the Board of Directors holds an annual meeting to report on performance on safety and health and approve the safety and health plan, and the CSHO has final and substantial authority and responsibility for safety and health-related organizations, personnel, and budgets, and is in charge of safety and health work to implement the plan approved by the Board of Directors by having the Management EHS (Environment Health & Safety) and Construction EHS organizations under him.

Safety and Health Management Organization



Organization in Charge

Occupational Safety and Health Committee

The Occupational Safety and Health Committee is composed of an equal number of representatives from the labor and management, and the Committee meeting is held on a quarterly basis to plan and inspect various activities related to employee safety and health with the direct participation of employees. The members from the worker side of the committee collect and express their opinions on safety and health, and directly check whether the opinions on safety and health discussed in the Committee are reflected in company policies and implemented.

Board of Directors

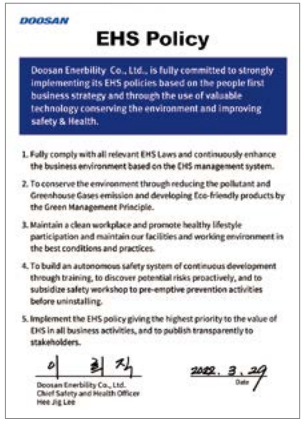
The Board of Directors annually receives and approves the agenda for overall safety and health management, including safety and health management policy, safety and health organization structure, safety and health budget and facility status, and safety and health activity results and plans, from the Chief Safety and Health Officer (CSHO) and the Occupational Safety and Health Committee.

EHS Committee

Since 2024, the existing 'EHS Session' has been upgraded to the 'EHS Committee' and operated as the company's highest decision-making body for EHS. The EHS Committee has the responsibility and authority to deliberate and make decisions on the company's overall safety and health policies, and based on this, it monitors the implementation of the safety and health plans reported to and approved by the BOD, and the implementation of EHS targets by checking the performance of activities by business, so that the company's plans are practically implemented.

02 Strategy

Doosan Enerbility is making company-wide efforts in EHS management with the goal of becoming an eco-friendly and accident-free workplace. Through our EHS management strategy, we focus on ensuring the safety and health of all stakeholders across the value chain, including employees, partner companies, customers, and local communities, as well as protecting the environment, and we strive to improve our EHS management capabilities and safety culture awareness. In addition, we not only ensure the safety of our employees by preventing major accidents, improving working conditions, and actively engaging workers, but also improve the safety and health of our partner companies by promoting systematic management and activities to improve the level of operations at their workplaces.



DOOSAN

EHS Policy

Doosan Enerbility Co., Ltd., is fully committed to strongly implementing its EHS policies based on the people first business strategy and through the use of valuable technology conserving the environment and improving safety & Health.

1. Fully comply with all relevant EHS Laws and continuously enhance the business environment based on the EHS management system.
2. To conserve the environment through reducing the pollutant and Greenhouse Gases emission and developing Eco-friendly products by the Green Management Principle.
3. Maintain a clean workplace and promote healthy lifestyle participation and maintain our facilities and working environment in the best conditions and practices.
4. To build an autonomous safety system of continuous development through training, to discover potential risks proactively, and to subsidize safety workshop to pre-emptive prevention activities before uninstalling.
5. Implement the EHS policy giving the highest priority to the value of EHS in all business activities, and to publish transparently to stakeholders.

이 희 직

Doosan Enerbility Co., Ltd.
Chief Safety and Health Officer
Hee Jig Lee

2022. 3. 29
Date

03 Risk Management

Site Safety Improvement Activities

Strengthening Site Safety Management

Doosan Enerbility conducts safety inspections at domestic construction and service sites to prevent major accidents. Four teams under the EHS/Management Division are sequentially inspecting a total of 29 sites, including 23 construction sites and 6 service sites in Korea. Based on this, the company selected six themes with a high incidence of major accidents and strengthened site safety through 2Cycle (repeated) inspections.

Introducing Safety Alert

Doosan Enerbility is working to strengthen the safety management system at its sites and raise site workers' awareness and compliance with safety laws and regulations. As part of these efforts, we have produced and distributed a guideline booklet on the Serious Accidents Punishment Act to all managers at our Changwon plant and domestic construction sites for training. In addition, we also operate the Safety Alert system to quickly share cases of various types of major accidents at various industrial sites, as well as conduct preventive inspections and special trainings for all employees and workers of partner companies. In 2023, we issued a total of 58 Safety Alerts, and created and distributed a collection of serious accident cases to be used as training materials for on-site supervisors and workers.

Conducting Emergency Response Drills

Doosan Enerbility conducts emergency response drills more than 60 times a year, creating emergency scenarios that correspond to the risk factors of each department. We enhanced our capability to respond to emergency situations by conducting joint drills with the fire station in order to maintain close cooperation with external organizations, as well as company-wide drills involving all employees at the headquarters, Changwon Plant, and Doosan Tower in Bundang, in the first and second half of 2023. At the Changwon Plant, firefighters and paramedics are always on stand-by with the firetrucks and ambulances at the ready 24×7 throughout the year to swiftly respond to emergencies reported through the company's emergency hotline.

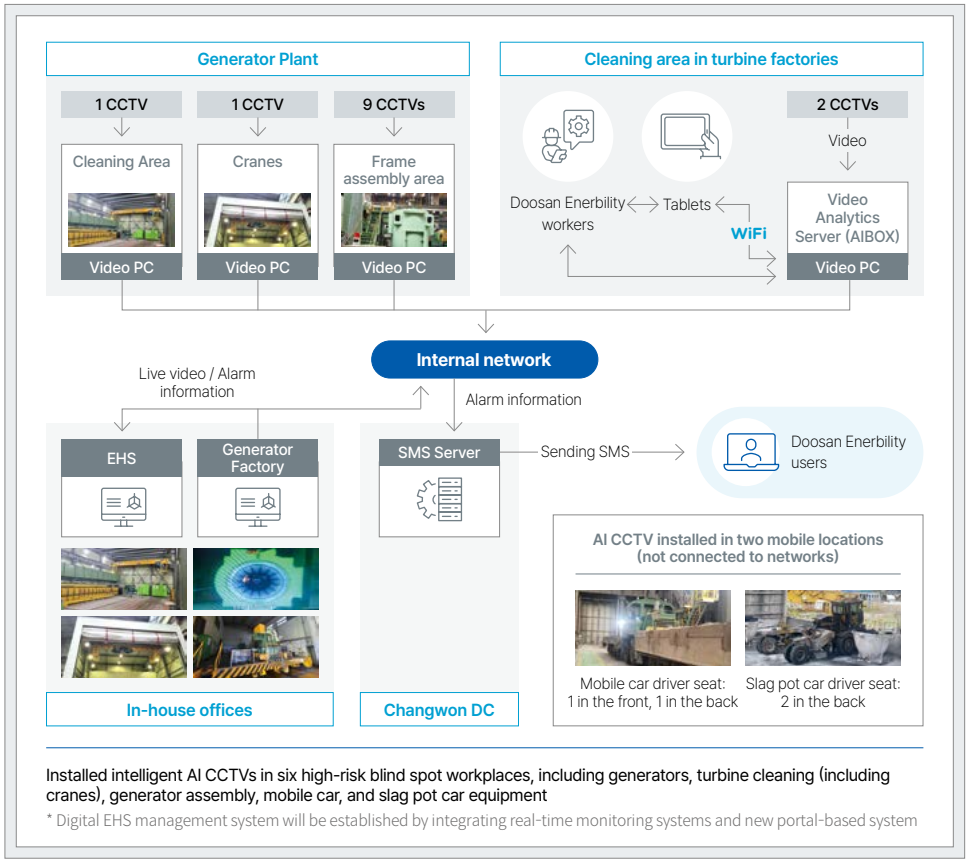
Conduct Employee Safety Training

To secure specialized EHS competencies at all levels, Doosan Enerbility defines roles and required competencies by position and function (executives, supervisors, workers, EHS, etc), analyzes Functional Competency (FC), and conducts customized safety trainings to set the direction of safety training. In 2023, we operated the EHS Academy to prevent chemical accidents, and we provide customized safety training to various levels, including training for experts in rope work and leadership training for supervisors.

Implementing Digital EHS

In 2023, we installed intelligent AI CCTVs in six high-risk blind spot workplaces, including generators, turbine cleaning work (including cranes), generator processing work, mobile car, and slag pot car equipment, to ensure safety through emergency rescue and confirmation by automatically sending messages from related parties in the event of a worker's fall down or abnormal situations. In addition, we developed AI disaster prediction system model with AI learning functions, using workplace risk assessment data, past disaster analysis, equipment risk, worker health risk, and weather and conducted pilots in steelmaking and forging workshops, to check and ensure work safety by notifying the daily predicted work risks, assessed risk levels, and TOP3 risk contents and current safety measures in real time.

AI Disaster Prediction Systems



Establishment of Integrated monitoring systems of Intelligent AI CCTVs

Conducting Risk Assessments and Follow Up Activities

Doosan Enerbility conducts risk assessments to identify and improve hazards and risks in the workplace. To ensure that practical improvements can be made, we conduct risk assessments with the participation of workers who are most familiar with the hazards and risks at sites. Accordingly, the Company conducted a total of 148 regular risk assessments and 18 ad hoc risk assessments in 2023. Furthermore, the Company has prepared improvement measures for the hazards and risks identified through risk assessments, and tracks and manages the implementation of the improvement measures. In 2023, the Company improved a total of 85 hazards and risks in the workplace.

Managing Accident Rates and Taking Measures to Prevent Recurrence

Doosan Enerbility manages and discloses the number of accidents, LTIFR (Lost Time Injury Frequency Rate), and fatalities, which are indicators related to industrial accidents at the company and its partner companies. Furthermore, we are continuously implementing various on-site safety improvement activities to prevent actual safety accidents, and we are also taking measures to prevent recurrence of accidents that have already occurred and systematically checking them.

Empowering Partner Companies to Manage Safety

When selecting partner companies, Doosan Enerbility considers factors such as compliance with the Occupational Safety and Health Act, appointment of a safety management officer, and evaluation and feedback on safety and health management practices, including training and medical examinations, when conducting new contracts, and values and manages the safety management capabilities of partner companies as well as the company. In 2023, we participated in the Public-Small Business Safety and Health Win-Win Cooperation Project to establish a risk-assessment-based safety and health management system for internal and external partner companies, and evaluated EHS management activities for 42 internal partner companies. In addition, we operate a behavioral observation program to identify and improve unsafe behavioral factors in high-risk tasks of partner companies to promote the establishment and upgrading of their safety management systems. In preparation for unpredictable hazardous situations and variables at sites, we implemented activities to secure the safety of our partner companies' workers by utilizing QR codes that allow workers to stop work and evacuate on their own.

Workers' Right to Refuse Dangerous Work

Promoting Employee Health

Employees' Health Checkups	We provide comprehensive medical examinations once a year for employees and their spouses who have worked for more than five years at the company or are over the age of 35, and PET-CT or brain-cardiovascular MRA examinations for employees who have worked for more than 20 years or are over the age of 45. To manage occupational diseases, we regularly conduct special medical examinations and general medical examinations at least once a year, and provide follow-up management such as prescription of medication, exercise therapy, and education through consultations with specialists at affiliated hospitals for those who have abnormal findings. In addition, to manage cerebrovascular diseases, we conduct cerebrovascular disease risk tests once a year and provide consultations with specialists at affiliated hospitals and follow-up management for high-risk work groups.
Vaccination	We offer annual influenza vaccinations for employees and their families, and in 2023, we immunized approximately 6,515 people. We also support vaccinations against endemic diseases (malaria, typhoid, yellow fever, etc.) that are prevalent in certain regions/countries to prevent diseases that can be contracted overseas.
Flu Paid Leave	We support healthcare by providing two days of paid leave to employees who are infected with flu so they can get enough rest and treatment to recover quickly.
In-house Clinics	We operate in-house clinics with doctors, nurses, physical therapists, and exercise prescriptor to provide one-stop medical treatment, drug prescription, physical therapy, and exercise therapy for employees and partner companies. The clinic provides medical treatment and counseling for each employee's health condition before overseas dispatch and business trips, as well as EHS education and personalized medicine kits. Furthermore, medical staff, including specialists, regularly visit overseas sites with poor medical infrastructure to provide health counselling and medical treatment.
Assistance with Medical Appointments and Medical Expenses	We have signed agreements with three major hospitals in the Seoul metropolitan area and six specialized dental and ophthalmology hospitals near our sites to provide medical treatment for employees and their families. We also provide medical expenses with a limit of KRW 20 million per person for employees, their spouses, and children, and KRW 5 million per person for employees' parents, to support health-related welfare.
Support for Internal and External Partner Companies Health Checkup	We have signed comprehensive health checkup agreements with 17 hospitals nationwide to provide healthcare support for employees of internal and external partner companies to receive comprehensive health checkups and take care of their health with subsidized costs and programs.
Psychological Counseling Programs	We operate internal and external psychological counseling centers (MISODAM) to help employees and their families deal with stress and grievances through consultations with professional psychologists. In 2023, we conducted a total of 861 counselling sessions (280 internal and 581 external) and provided expert psychological counseling.

04 Metrics and Targets

Doosan Enerbility operates the Doosan EHS Rating System (DSRS), a voluntary safety and health management system of the Doosan Group, which quantitatively assesses the company's environmental, health, and safety (EHS) level based on 15 factors, including leadership, risk assessment, and risk management. In 2023, we earned a score of 69.5, an increase of 10 points from the previous year, and we will continue to focus on solid EHS management. We plan to build on the system and continue to drive innovative and sustainable improvements.

EHS Level Assessment (DSRS)

69.5 points

Up 10 points year-over-year

Quality Management

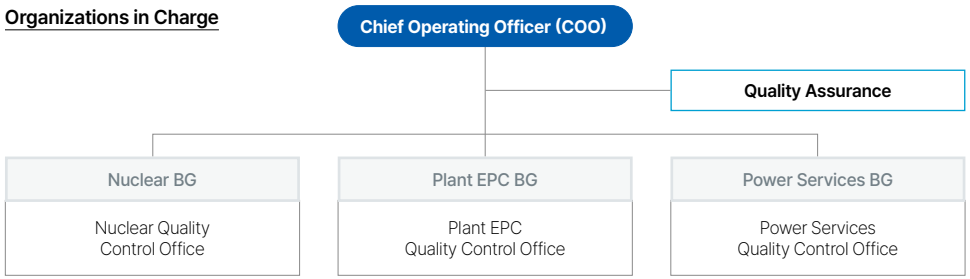
01 Governance

Doosan Enerbility promotes quality management activities to retain and strengthen its core competencies in plant design/manufacturing/installation/commissioning at the global level. Furthermore, we maintain more systematic quality system in accordance with global standards to ensure the performance desired by customers and to produce quality that satisfies customers without defects. In addition, all organizations and employees of the company strictly comply with the requirements of the quality policies.

Organizations in Charge

To establish and maintain an organized and systematic quality system in accordance with Doosan Enerbility's global standards, the COO holds overall responsibility for securing the effectiveness and continuous improvement of the quality system and establishes an organic communication and collaboration system with the corporate quality assurance organization and the quality control offices of each Business Group.

Organizations in Charge



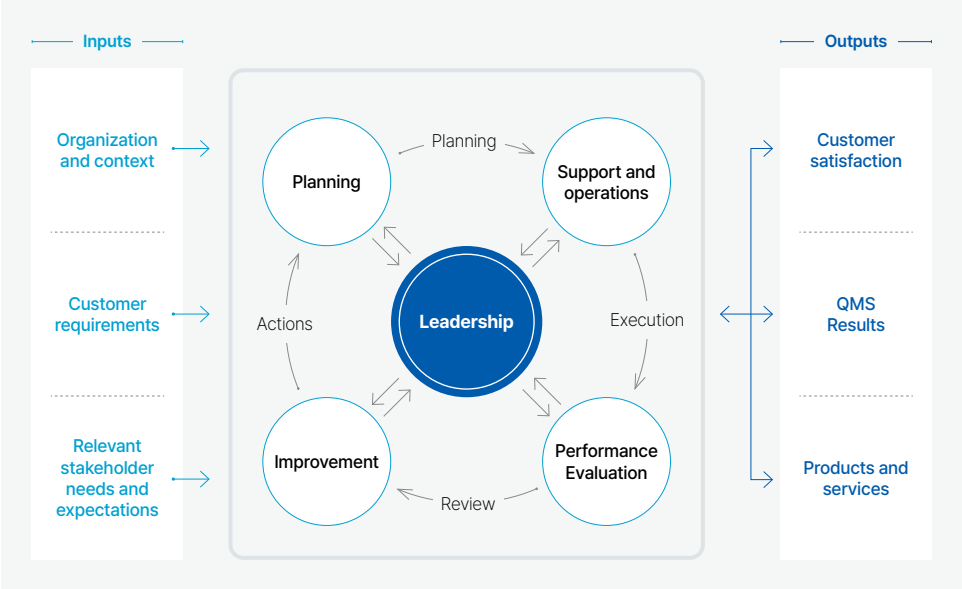
The Quality Innovation Committee serves as a control tower that plans and inspects various preventive quality activities to ensure the quality that satisfies customers. Through the continuous and systematic promotion of preventive quality activities led by management, we are actively responding to internal and external changes in the quality environment and requirements, such as the continuous increase in customers' awareness of quality and the acceleration of digital transformation of the work environment.

The Quality Innovation Committee

02 Strategy

Doosan Enerbility's quality management system meets the requirements of the Global Standard, including determining the required inputs and expected outputs from processes, determining the sequence and interaction of processes, and measuring risks and opportunities, and actively promotes continuous improvement.

Quality Management System



Specialized Quality System Structure and Digitized Management for Preventive Quality Assurance

To secure global-level quality competitiveness and customer satisfaction, it is essential to establish an advanced quality management system, and Doosan Enerbility has established and operated specialized quality systems in each business area to meet the requirements of the plant market and customers. In addition, we are striving to secure flawless quality by establishing a digital management system for quality information to keep pace with the accelerating digital environment based on AI and to ensure preventive quality in related businesses.

Quality System Certification

Doosan Enerbility has acquired international certifications and operates quality assurance systems and environmental and safety management systems in line with them to enhance quality management. To demonstrate our quality competitiveness and secure customer trust, we have acquired and maintained 52 external certifications from internationally recognized organizations in the power generation fields such as nuclear, wind, and gas turbines, as well as in the aerospace industry. We also became the first Korean company to obtain nuclear quality management system certification (ISO 19443), which enabled us to export nuclear power plants to Europe.

Doosan Quality Management System (DQMS)

Doosan Enerbility has introduced the Doosan Quality Management System (DQMS) to manage preventive quality through digital quality information and document management, and digitized quality information at all stages from inspection planning to results to secure progress visibility and strengthen execution of quality management.

Configuring the Doosan Quality Management System (DQMS)

Quality Assurance/ Certification & Training	Quality Inspection	Quality Status/ Documentation	Quality Prevention/ Improvement
Warranty Information	**Conduct Inspections**	**Quality Issues & Status**	**Preventive Quality**
Quality Policy/Program	Customer QIP	Managing non-conformance (QFR/NCR)	Preventive Quality Pool Management
Quality Certificates	Vendor standard QP/MPP	Corrective Action (CAR/RCA) Management	Execute/Manage Relapse Prevention Activities
Quality Assurance Plan/ Manual	Item/PR QC Approval	Manage the cost of quality failures	Manage quality improvement tasks
Approved Vendor List	Accepting Inspections/ Assigning Inspectors	Analyzing corrective action (ADR)	Managing prototypes
Qualifications & Trainings	Manage Test Runs/Results	**Equipment & Materials**	Manage Quality Tracking
Manage Quality Inspector Qualifications	Request/Manage Inspections	Nondestructive Testing data by PJT	Quality Preventive Monitoring Management
Manage NDE Qualifications	Mold tool steel production status/inspection	Non-destructive equipment/ materials management	
Manage designer credentials	**Reports**	**QVD Management**	
Plan and execute quality assurance training	Nondestructive Testing Reports	Register/Acquisition of QVDs	
	Material Certificates	CMTR/COC Management	
	Certificate of Authenticity		

03 Risk Management

Product Quality and Safety

Management Quality Leadership Tour (MQLT)

As a quality management activity led by the management of each business area to inspect and supervise on-site quality, we are conducting Management Quality Leadership Tour around each functional site to promote thorough quality assurance by directly checking if quality processes are complied with and if major lessons learned are reflected.

Ensuring Nuclear Power Quality and Safety

In order to ensure the quality and safety of nuclear products, we have been certified by ASME, KEPIC, ISO, etc. to obtain international standard certifications in the fields of materials manufacturing and nuclear main equipment/auxiliary equipment design and production. In the process of product design/production, we evaluate the soundness of products through various performance tests such as hydrostatic test, load tests and Non-Destructive Examinations (NDE) to ensure the performance and safety in the usage stage according to codes, international standards, and clients' special requirements.

Ensuring Wind Power Quality and Safety

Doosan Enerbility has secured the quality, safety, and reliability of its wind power systems by obtaining IEC61400 certification, an international standard issued by the International Electrotechnical Commission(IEC) for its wind turbines. The certification process tests the turbine response and safety to startup, shutdown, normal operation, and fault situations to ensure performance and safety not only in the design/manufacturing of the product but also in the usage stage, and also evaluates the soundness of the actual blades against extreme loads and fatigue loads that may occur during their lifetime.

Quality Control Activities

Quality Trainings

To secure customer trust in quality, Doosan Enerbility continuously conducts quality mindset trainings for employees and partner companies in quality, design, production, etc. with the main contents of listening to customer voices, examples of nuclear quality issues, and measures to prevent recurrences.

Status of Quality Training Operations in 2023

Course	Target	Training hours	Number of participants
Company-wide nuclear quality training	Company (white collar, blue collar), partner companies	1 hour	1,868
Understanding quality assurance programs and nonconformance management	Company (white collar)	3 hours	40
Nuclear Quality Academy	Partner companies	7 hours	171

Automation of Non-Destructive Examinations

We are developing inspection techniques and designing and manufacturing systems to apply automated and digital data-based non-destructive examinations to the welded parts of power plant main equipment. Some systems are undergoing performance verification after development, and the developed automated non-destructive examination technology will be applied to the production of new nuclear equipment such as SMR (Small Modular Reactor), further improving the reliability of non-destructive testing.

Development and Operation of Mobile Welding Applications

We have developed and operated a mobile welding application to easily check relevant information for securing welding quality (welder qualifications, welder certification data, status report of welding materials release, and monitoring of welding parameters) at sites.

Development of Welding Parameters Monitoring System

We have developed a welding parameters monitoring system that can remotely monitor voltage, electric current and preheating temperature, which are the main variables of on-site welding work, on a real-time basis to ensure welding quality.

Development of Doosan Equipment & Material Supply Management System (DESM)

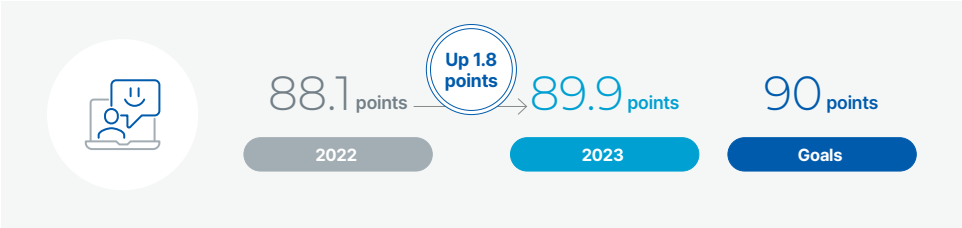
In order to improve work efficiency and facilitate inventory management, we have centralized the equipment & materials supply schedule into an integrated management system (DESM, Doosan Equipment & Material Supply Management System), which is shared with relevant personnel on a real-time basis, and digitized the system for receiving, storing, and dispatching site materials and equipment for efficient management.

04 Metrics and Targets

Customer Satisfaction Surveys

To enhance quality management activities and customer satisfaction, Doosan Enerbility conducts an annual customer satisfaction survey to assess and improve the current status of product quality and safety. The survey is conducted through online and interviews, measuring satisfaction in three areas: customer management, quality and competence and process management including overall satisfaction. In 2023, the Customer Satisfaction Survey score was 89.9 points, up 1.8 points from 88.1 points in 2022, and we will strive to achieve 90 points in all areas to improve quality competitiveness and customer satisfaction.

Customer Satisfaction Survey Results



Human Rights Management

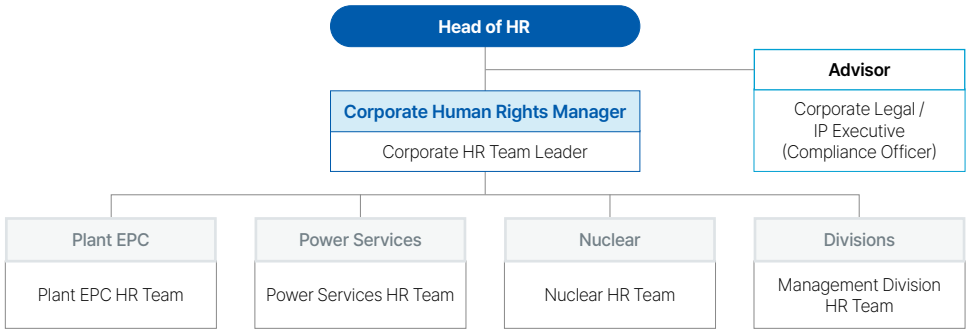
01 Governance

As a member of the UN Global Compact (UNGC), Doosan Enerbility has established a human rights policy by applying international human rights norms such as the UN Guiding Principles on Business and Human Rights and the core conventions of the International Labor Organization (ILO), and operates a human rights due diligence process accordingly. We have also established a dedicated human rights management organization and regularly conduct human rights impact assessments to proactively identify and prevent factors that hinder or violate the human rights of our employees and stakeholders.

Organization in Charge

In the event of any human rights violation, the Human Rights Committee responds promptly in accordance with the internal grievance handling process, while upholding principles of confidentiality and protection of the complainant. The Human Rights Committee is composed of people from the Corporate and BG/Division HR teams and advisor who acts as the Compliance Officer, and plans and operates company-wide human rights management activities. In addition, through a separate Human Rights Steering Committee, with the participation of departments such as the EHS team, Quality Assurance team, and Shared Growth team, the company manages the entire human rights impact assessment process, from assessing the company's human rights management status to establishing a human rights risk management plan, implementing the plan and monitoring the results.

Human Rights Committee Organizational Chart



02 Strategy

Establish and Enhancing Human Rights Management System

To manage human rights risks, Doosan Enerbility holds a corporate ESG Committee meeting, led by the COO, every year. Human rights risk is one of the core issues of the Social pillar, and thus, the status of human rights risk management and the results of human rights impact assessments are reviewed and reported every year. In 2024, the ESG Committee reported on the launch of a horizontal organizational culture, the results of the human rights impact assessment, as well as the direction of expanding employment for people with disabilities, and plans to strengthen human rights assessments and due diligence at subsidiaries.

Promoting Diversity and Inclusion

Doosan Enerbility does not discriminate against people on the basis of gender in any HR operation, such as recruitment, compensation, training and promotions. Promotions are given based on the results of a fair competency assessment, and annual salary increases are granted uniformly in accordance with company regulations. In addition, to ensure that employees are not unreasonably discriminated against during personnel evaluations due to reasons such as parental leave, the relevant division and Corporate HR conducts a thorough review process.

03 Risk Management

Human Rights Impact Assessment

Doosan Enerbility conducts periodic human rights impact assessments at its major business sites using its own checklist. The scope of the assessment includes employees of domestic and overseas subsidiaries, as well as the suppliers. The target group of the Human Rights Impact Assessment includes employees working in Korea and at our overseas subsidiaries, as well as our partner companies. The assessment is conducted annually at domestic sites and once every three years for selected overseas sites. We plan to gradually roll this out to a wider group. We plan to gradually expand the number of overseas sites to be assessed. The Human Rights Management Checklist consists of 12 categories, 50 evaluation metrics, and 182 indicators reflecting major assessment issues, such as human rights protection. For overseas business sites, we grant flexibility in applying the checklist to suit the the local situation.

Human Rights Impact Assessment

1. Implementation of Human Rights Management System
2. Non-Discrimination in Employment
3. Freedom of Association and Collective Bargaining
4. Prohibition of Forced Labor
5. Prohibition of Child Labor
6. Ensuring Industrial Safety
7. Responsible Supply Chain Management
8. Protection of Local Residents' Human Rights
9. Ensuring Environmental Rights
10. Protection of Consumer Rights
11. Respect and Communication
12. Protection of Personal Privacy

Human Rights Impact Assessment Process

Conduct a Human Rights Impact Assessment	Review evaluation results	Create an improvement plan	Implement improvement plans and report results
Identify areas of weakness and prioritize improvements	Review assessment results and consider appropriateness of prioritized improvement areas	Create an improvement plan	Report to Executives, BG Heads, and COO on improvement results

Human Rights Training Programs

We conduct workplace sexual harassment prevention, disability awareness, harassment prevention training programs every year for all the employees. Through the training programs, employees become aware of the importance of human rights and a corporate culture of mutual respect is established at the workplace.

Training Content

Preventing sexual harassment in the workplace

- Case examples of sexual harassment in the workplace
- How to prevent sexual harassment and the relevant laws
- Addressing sexual harassment cases (discipline/sanctions)

Improving disability awareness

- Understanding the people with disabilities and types of disabilities
- Disability discrimination prevention laws and welfare policies
- Improving disability awareness in the workplace

Prohibiting workplace harassment

- Anti-harassment concepts and case examples
- Factors for determining workplace harassment
- Remedies in the event of workplace harassment

Grievance Handling Process

The Company accepts reports on human rights issues and violations of ethical management through various channels, including online channels ('Whistleblowing Center' on the company website), in accordance with the Internal Reporting System Operating Regulations, and guarantees confidentiality regarding the identity of the complainant and the contents of the report, and prohibits disadvantageous measures from being taken against those who filed reports in good faith. After verifying and investigating the facts of the report through the department in charge, the HR Committee decides on whether to take disciplinary action or not. Upon completion of all procedures, the department in charge will report the contents to the CEO and notify the complainant of the outcome of the report.

Operation of Workplace Bullying and Sexual Harassment Prevention Center

Doosan Enerbility complies with the Labor Standards Act, the Act on Gender Equality in Employment and Support for Work-Family Balance, and respects the diversity of its employees so that none of its employees are discriminated against due to external factors such as gender, disability, or religion. In addition, if a report is filed at an external professional organization, the organization conducts an initial interview to objectively verify the relevant facts and this is then followed up by the company's internal procedures. In particular, in cases of workplace bullying or sexual harassment, the company strives to provide relief to victims, including taking action against the perpetrators and providing psychological treatment to victims through the in-house psychological counseling center, 'MISODAM'. The Company actively supports victims who wish to conduct fact-finding through an external organization rather than relying on the company's internal process.

04 Metrics and Targets

2023 Human Rights Impact Assessment Results and Improvement Plan

As a result of the 2023 Human Rights Impact Assessment, four items were improved from the previous year, resulting in positive assessment results in a total of 35 items. Specifically, we confirmed positive improvement results in items such as self-diagnosis and evaluation through supply chain ESG diagnosis and guidelines, and reflection in the partner companies selection process. In the case of VINA (Vietnam), a subsidiary of Doosan Enerbility, we confirmed that 16 out of 50 evaluation items were improved. Specifically, the company achieved tangible improvement results by establishing a human rights policy and creating a human rights management culture through the establishment of an organization in charge of human rights.

Key Improvement/Mitigation Activities in 2023

Type	Issues Identified	Impacted Group	Improvement / Mitigation Activities
Domestic operations	No process for reflecting the consequences of supply chain human rights infringements	Partner Companies' Employees	• Incorporate partner company human rights violation assessment results into the partner company selection process (supply chain ESG self-assessment and evaluation, incorporation into the partner company selection process)
	Improvements needed on regulations and measures for protecting personal information	Employees	• Strengthening the technical/physical measures based on internal management plans and the measures for ensuring security through the Privacy Policy
Overseas subsidiary (VINA)	Lack of human rights management, a dedicated human rights managing organization and human rights inspection system	Local employees	• Establish/declare a human rights policy and establish a human rights committee • Establishment of a human rights task force (TFT) and human rights status check/training system
	Lack of a grievance process and dedicated organization/staff	Local employees	• Establish a grievance process • Select and train grievance officers

Key Improvement/Mitigation Activities for 2024

Type	Issues Identified	Impacted Group	Improvement / Mitigation Plan
Domestic operations	Lack of an appeals process for personnel evaluation results	Employees	• Prepare to introduce an appeal process for sessions with the PDS rollout
	Failure to train executives/managers on preventing unfair labor practices	Employees	• Will consider including unfair labor practice training in new executive/ team leader training
Overseas subsidiary (VINA)	No human rights training for security personnel	Local employees	• Specify human rights obligations in security vendor contracts and provide human rights training to security personnel • Monitor their compliance with human rights protection
	Lack of consideration for the socially vulnerable local groups in the hiring process	Locals	• We will supplement the guide to ensure consideration for vulnerable groups by enabling vulnerable groups to submit their information and supporting documents along with their resumes.

Human Rights Impact Assessment Goals

2025	2030
Complete 50% implementation of human rights due diligence process, including subsidiaries	Complete 100% implementation of human rights due diligence process, including subsidiaries

Talent Management

01 Governance

Doosan Enerbility has established a learning & development system aimed at cultivating highly productive employees who possess the traits defined as being characteristic to "Doosan people." We operate a wide range of programs designed to support employees' self-initiated growth and competency development, as well as programs for establishing a corporate culture that promotes equity and work-life balance for employees.

Organization in Charge

Doosan Enerbility offers training programs, led by Corporate HR, that are designed to meet the needs of employees based on their strengths and competency level to foster a well-balanced workforce that is equipped with both leadership skills and functional expertise. In addition, we offer a wide range of programs, such as self-development programs and individually customized training programs, to cultivate experts who are capable of leading the green energy business and new growth driver businesses in line with the company's transition to an eco-friendly business portfolio.

02 Strategy

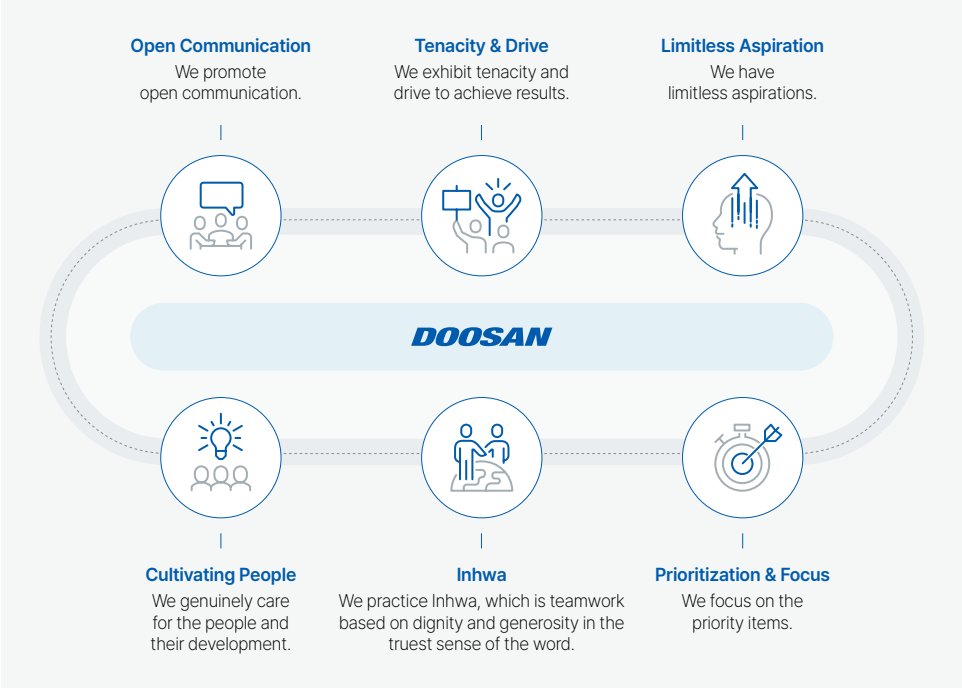
Talent Development Strategy

The company implements a fair recruitment process to recruit talented employees who fit Doosan Enerbility's concept of talent, and we provide systematic training programs to support the early adaptation and growth of new employees. In addition, we are fostering functional experts that are in demand in the growing new business areas in consideration of the rapidly changing internal and external environment, such as the global policies established in response to climate change. We also conduct organization revitalization programs to liven up the corporate atmosphere and strengthen communication, as well as leadership and communication programs for each position.

Traits of Doosan People

Doosan People, as envisioned by the Doosan Group, refers to all employees who have the ability and willingness to contribute to the organization and strive to constantly improve upon their capabilities. Doosan Enerbility has established a clear training system and promotion strategy to create a corporate culture that enables all employees to grow to become a Doosan person.

Traits of Doosan Enerbility People



Evaluation and Reward Systems

Competency Evaluation (DCM) and Performance Management (MBO) Schemes

Doosan Enerbility operates a two-pronged evaluation and compensation system - the Doosan Competency Model (DCM), which is used to systematically evaluate the competencies/behaviors of Doosan employees, and the MBO scheme, which is used to establish individual performance goals in alignment with the company's mid-to-long term strategy and annual operating plan, and by which the annual performance is managed and evaluated. In the case of the MBO scheme, team goals are set to support the company's annual goals at the beginning of each year, and team goals are cascaded down to each team member through Goal Review Meetings held between the team leader and team members, and some additional goals for individual priority tasks are established along with the team goals through mutual consultation. For the established goals, continuous feedback is provided through regular coaching and interim checks, and accordingly, fair and clear competency evaluations and performance management are carried out through a process that encompasses the following steps: Goal Setting > Year-Round Coaching and Mid-Year Review > Year-End Review > Feedback on Evaluation Results.

Reward System

Doosan Enerbility operates an employee compensation system that is linked to individual competencies and organizational/individual performance to motivate employees to develop their competencies and improve their performance. We support timely rewards for performance through various variable pay schemes, including a fixed salary, which is based on the Annual Salary Reviews that look at DCM evaluation results, and a short term incentive(STI), which is based on the MBO evaluation results that reflect the organizational and individual performance. We also comply with wage-related laws such as the Minimum Wage Act and the Labor Standards Act, and do not discriminate in wages based on gender. In addition, we operate a separate long-term incentive system (LTI) for executives that is linked to the share price of the company, and we promote the improvement of the organization's mid-to-long term performance through three-year performance evaluations.

Rewards

LTI	Compensation that reflects the organization's mid-to-long term performance (company growth) (Executives)
STI – Organizational Performance	Differential rewards based on organizational performance
STI – Individual Performance	Differential compensation based on individual performance
Special Incentive	Occasional rewards for special achievements during the year (inventions, system innovation achievements, etc.)
Annual Salary	Compensation that considers the individual's capabilities/development, etc.

03 Risk Management

Growth of Business through Growth of People

Leadership and Job Enrichment Programs

To achieve a virtuous cycle linking the growth of business and people (2G Strategy: Growth of People, Growth of Business), Doosan Enerbility conducts leadership programs for various positions and job-specific functional leadership programs. In particular, in 2023, the company offered training on new businesses related to gas turbines, wind power and SMRs for all the employees, including contract workers, to strengthen the functional competencies of the employees as the company expands its portfolio into the green energy business. Doosan Enerbility operates learning academies for the various stages of the value chain, and helps employees secure basic competencies and expertise by offering a step-by-step program consisting of the Basics-Advanced-Experts course. Employees' overall satisfaction level regarding training is quite high (4.4 out of 5.0), and we plan to raise the satisfaction rate even further through continuous content restructuring to increase employee engagement. We also organized leadership programs for existing and incoming leaders, as well as prospective leaders, by devising leadership training programs for various positions.

Leadership Programs

Course	Training Objectives	Target Group
Orientation Program	Doosan Credo internalization and softlanding support for new hires	New Hires (new/experienced)
Introduction to New Roles	Gaining the mindset and skillset needed to take on new leadership roles	New Leaders
New Leadership Assimilation Program	Share the vision, goals, and leadership style of new leaders to facilitate the effective operation of the organization.	Organization Heads
Leadership Reflection Course	Understand the direction of the shift to a horizontal culture and the role of leaders, and have leaders reflect on their personal leadership style and create their own Development Plans	Executives / Team Leads
Online Leadership Programs	Support employees' self-initiated learning and development by offering a variety of year-round programs related to leadership, management and foreign languages	All Employees

Job Enrichment Programs

Course	Wind Power Academy [Basic]	GT Academy [Basic]
Purpose	To gain a better understanding of the wind power business, its products and technologies	To increase the overall understanding of the GT/combined cycle power plant projects and business processes
Educational Impact	Enhancement of job performance capabilities by gaining an understanding of the key products, technologies, tasks, and processes in the wind power business	Stronger collaboration and work efficiency between GT and related departments by gaining a good understanding the work processes and interrelationships across GT/combined cycle power plant projects
Number of Participants	39 people	57 people

Creating a Culture of Self-Initiated Learning

Doosan Enerbility operates various learning programs to support employees' self-initiated growth and competency development. Through the Global Cultural Experience Program, we help employees gain experience of overseas cultures to enhance their global mindset and communication capabilities. We offered foreign language programs and provided financial support on foreign language proficiency tests for 260 employees who are scheduled to be dispatched overseas and who are working on global projects. We operate online learning contents that can be utilized by all employees, such as online audiobooks/special lectures and an e-library, and support employees' active learning through the operation of in-house learning clubs and support the participation in external training programs. In addition, we activated non-face-to-face training by supporting live video transmissions and streaming services of employee-led trainings, and developed online training contents introducing the company's major products and technologies (i.e., BPI: Business Product Introduction) to support the employees' year-round learning. We also provide congratulatory payments to all employees (including contract workers) who newly acquired advanced technical certifications designated by the company, and, if deemed necessary for the conduct of the company's business, we strive to foster a culture of self-initiated learning among our employees by providing a fixed monthly allowance set per grade to holders of certain certifications through a selection process.

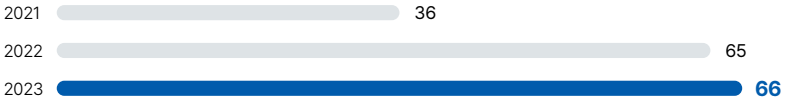
Retiree Support

Doosan Enerbility operates a reemployment training program for full-time retirees over the age of 50. We offer post-retirement change management, life planning, self-development, job and business skills development programs, and support the retirees' successful life planning and career transition by helping them create personalized career plans after the training. Going forward, the company will continue to make efforts to help employees in their life and career planning.

Key Retiree Assistance Programs

Training Programs	Career Assessment/Counseling	Arranging Re-employment
• Developmental roles • Business skills	• Create a career plan	• Provide job placement services

Number of People Who Completed Program (Unit: Persons)



Spreading the Corporate Culture

Promotion of Horizontal Organizational Culture

We conducted a Leadership Reflection course for all executives and team leaders in Korea and overseas to facilitate the shift to the horizontal organizational culture that Doosan aspires to achieve. Through this course, we strived to build a healthy and desirable organizational culture by providing an understanding of the main characteristics of a horizontal organizational culture and defining the role of leaders in promoting a horizontal organizational culture.

Establishment of Sound Labor-Management Relations

Doosan Enerbility has been a labor dispute-free workplace for 18 consecutive years (2006-2023) owing to continuous efforts made by the company to establish a culture of mutual growth between labor and management and improve working conditions. In 2023, we held a collective bargaining agreement signing ceremony in November after 28 rounds of collective bargaining, all of which was possible due to the trust shared by labor and management. We continue to discuss improvements to be made to the work environment and welfare benefits through various consultative bodies, such as the Labor-Management Council and the System Improvement Committee. We also operate individual communication channels and grievance committees within the Business Groups to reflect employees' concerns and opinions on system improvement in the company policies to promote labor-management harmony.

Internal Communication Promoting Activities

New Leader Communication Program

Whenever a new leader was appointed, the New Leadership Assimilation Program (NLAP) was implemented to enable the new leader to share the organization's vision and goals that were determined based on changes in the internal/external business environment and his/her leadership style with the employees to encourage mutual understanding, so that the organization could be operated more effectively. The new leaders shared their leadership messages, and then, the employees suggested their own thoughts on ways of working to the leaders to promote mutual understanding and two-way communication.

Strong Team Culture Building Programs

We run a Team-up Program to promote flexible communication and mutual understanding within the organization. Through the individual Birkman assessments, we are provided with a good understanding of the strengths and characteristics of our fellow employees, thereby enabling efficient collaboration.

Key Employee Benefits

Activities for Work-Life Balance

Doosan Enerbility operates various programs and facilities to promote good work-life balance for all employees. To ensure that female employees do not have their careers interrupted by pregnancy and childbirth, we have introduced maternity leave and family care systems. We operate in-house childcare facilities to provide a practical environment that allows employees to balance their work and family responsibilities, and we have actively introduced systems such as an increase in maternity benefits (KRW 100,000 → KRW 300,000) and expansion of medical expenses. In addition, we have implemented systems such as remote office, adjustable clock-in/out time and the PC-On/Off Agent to create a flexible working environment.

In recognition of our efforts, we have been awarded the Family-Friendly Certification by the Ministry of Gender Equality and Family, and we are also a participant company in the Work-Life Balance Program organized by the Ministry of Employment and Labor. Upon receiving the Family-Friendly Certification, we conducted a satisfaction survey on 562 employees in 2023, checking on areas such as the actual work-life balance situation, leaving work on time, and the freedom to use one's annual leave, and as a result, the average satisfaction level was revealed as being 78.5. This family-friendly culture contributes to the employees' happiness by providing increased job satisfaction, less stress, and improved quality of life.

Family Friendly Certification

A system that grants certification to companies and public institutions that operate family-friendly systems (childbirth and childcare support, flexible work arrangements, family-friendly workplace culture, etc.)

Work-Life Balance Campaign

Campaign to improve workplace practices and culture to empower workers to be at their best, increase their productivity and competitiveness, and promote work-life balance.

04 Metrics and Targets

To build a horizontal corporate culture, Doosan Enerbility conducts employee surveys and Focus Group Interviews (FGIs) to understand the organizational culture and the needs / current status of employees. As a result of the survey conducted in 2022 to improve the organizational culture, improving the mindset of leaders and strengthening employee expertise were identified as development needs, and in Phase 1 which was conducted in 2023, we implemented five changes to establish a horizontal culture, which included streamlining the employees' business titles to two titles, operating an autonomous remote working system, conducting a 360 Survey for leaders, establishing a mindset that supports a horizontal organizational culture, and strengthening readiness checks for new leaders.

In November 2023, we held a briefing session on reducing the employee grade levels and improving the way employees are promoted and appointed as Phase II of the mid-to-long term roadmap. The briefing session was conducted based on voluntary applications from employees, with 259 participants (43 team leaders, 140 senior managers, and 76 associates) from all the Doosan subsidiaries, including Doosan Enerbility, offering a variety of opinions. In response to these opinions, we changed the five-tier employee position system to a two-tier system consisting of senior managers and associates in 2023, and are currently in the process of reorganizing the grade and promotion system in 2024.

Financial Support on Treatment for Infertility

Pregnancy and baby shower gifts

- Congratulatory gift of KRW 300,000 (Nov. 2022)

Maternity protection system, such as maternity leave and reduction of working hours during pregnancy

Operate various maternity benefits in accordance with applicable laws

- Paternity leave (90 days, 120 days for multiple births)
- Parental leave (1 year)
- Reduced hours during parental leave (1 year)
- Reduced hours during pregnancy (2 hours/day for women who are up to 12 weeks pregnant and 2 hours/day for women after 36 weeks of pregnancy)
- Changing the work hours for a pregnant worker (changing the time they clock in and out)
- Paid prenatal care time

Pregnancy Period	Through 28 weeks	From 29 to 36 weeks	After 37 weeks
Billable counts	Once every 4 weeks	Once every two weeks	Every 1 week

- Miscarriage, Stillbirth Leave

Pregnancy Period	Within 11 weeks	More than 12 weeks to less than 15 weeks	More than 16 weeks to less than 21 weeks	More than 22 weeks to less than 27 weeks	28 weeks or more
Vacation Period	From the day of miscarriage / stillbirth through 5 days	10 days from the date of miscarriage / stillbirth	30 days from the date of miscarriage / stillbirth	60 days	Up to 90 days

* Same as the maternity leave benefit system (first 60 days paid, 30 days unpaid)/Employment Law Article 75

- Spousal Maternity Leave (10 working days of paid leave within 90 days of the birth of the child)
- Spousal Parental Leave (1 year; dependent caregivers (husbands) are eligible for the same leave)
- 3 days of fertility treatment leave (first 1 day paid, remaining 2 days unpaid)
- Provide maternity breaks and lactation rooms (with at least 30 minutes of paid lactation time available twice daily)

Provision of In-house Childcare Facilities

- Operates workplace childcare facilities in Changwon and Bundang to support work-family balance
  - Provide age-specific childcare programs/special activities through child development and education experts

Financial Support on Treatment for Infertility

- Reimbursement for fertility (infertility) procedures up to KRW 1,000,000 for one-time expenses in addition to government-assisted expenses

Flexible Working Hours

- Remote Office: Operated a remote office at Dongdaemun Doosan Tower for employees who are based in satellite cities of the metropolitan area (Bundang, Dongtan) to help employees focus better on work, enhance their ability to perform self-initiated work, and prevent time loss due to long commutes.
- Adjustable Clock-In & Out Time Allows individuals/organizations to change their default work hours by selecting another clock-in and clock-out time (7 to 4, 8 to 5, 9 to 6, etc.) for work efficiency and work-life balance
- Part-time contract worker at company (1 person, as of December 31, 2023)

Work-from-Home

- Ability to work from home when necessary, such as for disease prevention purposes in accordance with EHS guidelines, to ensure work efficiency before or after overseas business trips, and in case of other emergencies.

Support of Medical Expenses,e.g., surgery for spouse / children

- Surgical expenses for employees, spouses, and children
  - For surgeries/medical procedures and diagnoses of cancer, brain diseases, cardiovascular diseases, and intractable diseases due to illnesses and injuries outside of work, support is provided up to a limit of KRW 20 million each for out-of-pocket treatment costs ,without any minimum claim amount limit.
  - For parents/parents-in-law (in common-law marriage) of employee or spouse, up to KRW 5 million provided per person
- Reimbursement of KRW 200 thousand per month for medical expenses for an employee's child under the age of 20 with a disability rating of grade 3 or higher

Tuition Support for Children

- Tuition reimbursement for elementary, middle, high school, and college-aged children of employees for their education
  - Flat-rate tuition reimbursement for employees' children aged 3 or older and in elementary school
  - Full tuition, admission fee, and enrichment dues for middle and high school children
  - Support for college tuition & fees of college students (up to 3 people)

Provision of dormitories for employees' children

- Operation of an apartment-type dormitory in Seoul to provide housing convenience for children of employees working in non-metropolitan areas who have been enrolled in universities (4-year university) in the Seoul metropolitan area (Doosan Dormitory, up to 2 years of support)

Family Care Plan (not including parental leave)

- 10 days of family care leave per year and 90 days of family medical leave of absence per year in accordance with applicable laws (However, if family care leave was also taken, this will be counted as annual family medical leave days)

License & Certification Rewards

- Incentive payments (flat rate, lump sum) for new recipients of company-designated advanced technical certifications
- A flat monthly allowance per certification level when certification-holder is used or appointed by the company for various sales purposes

Employee Psychological Counseling Program

- 'MISODAM', an in-house comprehensive counseling center for employees, operated to resolve stress and grievances with the help of professional counselors
- Offsite counseling center available for employees' family members
- Open to all employees, including temporary/contract workers

Supply Chain Management

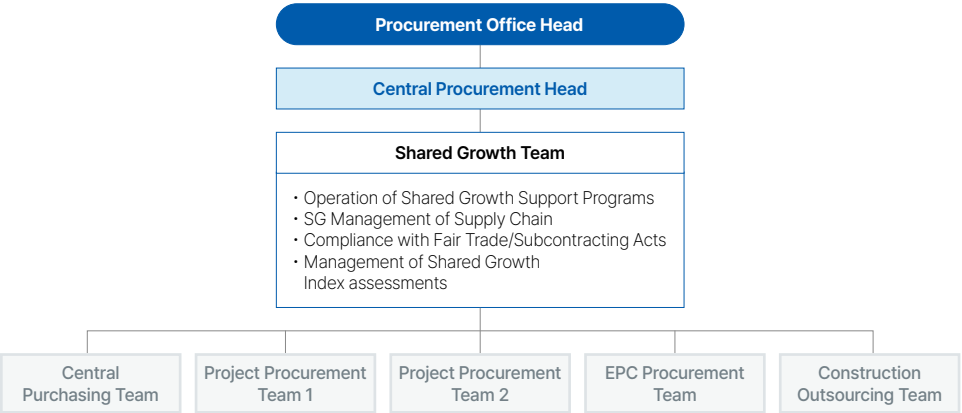
01 Governance

Doosan Enerbility is building a virtuous cycle of partnerships by transferring our technical capabilities and business systems to partner companies, and improving competitiveness across the supply chain through supply chain ESG management.
We have also established a "Supply Chain ESG Code of Conduct" and recommend that all partner companies comply with it, and we periodically check whether there are any conflicts with the company's procurement policy and update it to reflect the global supply chain environment and regulations.

Organizations in Charge

Supply chain management is overseen by the head of the Central Procurement, who reports to the head of the Procurement Office, and the Shared Growth Team is responsible for activities such as operating programs to support shared growth, fair trade, and supply chain ESG management. In particular, the ESG assessment of the supply chain is reported to the top management for decision-making on follow-up measures. The results and goals of supply chain management activities are shared through the ESG Committee.

Supply Chain and Shared Growth Management Organizational Chart



02 Strategy

Creating Virtuous Cycle – based Partnership

Doosan Enerbility builds a virtuous cycle of partnerships with its partner companies by strengthening their technological capabilities and upgrading their business systems. We aim to revitalize the local economy and contribute to the national economy through shared growth by improving the competitiveness of systems across the supply chain and sharing the results with our partner companies.

Supply Chain ESG Management

Doosan Enerbility conducts annual supply chain ESG assessments and supports improvement activities based on the results of the assessments, tailored to the ESG level of partner companies. Through this, the company has established a cycle of measurement, evaluation, and improvement, and is striving to internalize ESG management throughout the supply chain.

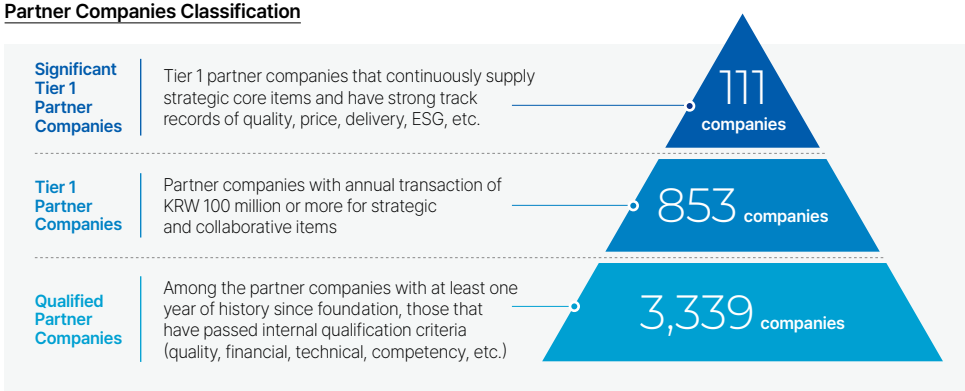
Partner Companies Classification

Doosan Enerbility selects and manages significant Tier 1 partner companies by comprehensively considering their strategic importance and ESG risk exposure. Strategic importance is evaluated based on the business impact of the supplied items (core items), transaction size, and transaction continuity, while ESG risk exposure is evaluated based on the company's geographical location (country risk) and supply structure (procurement risk). Significant partner companies are selected based on the integrated assessment of strategic importance and ESG risk exposure, and the list of significant partner companies is updated annually to reflect the supply chain assessment results and their transaction performance.

Significant Tier 1 Partner Companies Selection Criteria

- ESG evaluation results
- Transaction item (strategic core items)
- Transaction period
- Quality
- Transaction size (price)
- On-time delivery

Partner Companies Classification



03 Risk Management

Subcontract Monitoring

Doosan Enerbility has established an internal subcontract monitoring system and operates it quarterly to prevent unfair trade practices in the process of subcontracting transactions with partner companies and to prevent related risks in advance. In addition, the Shared Growth Call Center receives consultations and reports on unfair subcontracting practice and violations of fair-trade compliance, which are processed in a fair and prompt manner based on the principle of confidentiality.

Manage Compliance with Fair Transactions in Subcontracting Act

Doosan Enerbility has conducted trainings to spread awareness and improve understanding among employees and added a variable subcontract price management function to the procurement system in response to the enactment of the mandatory variable subcontract price system. In addition, Doosan Enerbility operates a continuous training and management system to prevent the misuse/leakage of technical data from SMEs and to manage the issuance of technical data request letters. Every year, the company conducts trainings on FSTA compliance for employees to maintain fair business relationships with suppliers, and in 2023, more than 300 employees from 16 construction sites and related departments such as Procurement and Engineering and participated in the trainings.

Supply Chain ESG Evaluation

Doosan Enerbility conducts annual ESG assessments of its partner companies to identify and remediate potential supply chain ESG risks. In particular, the assessments are focused on human rights and environmental issues to ensure that our European nuclear power plant and SMR projects are carried out in a sustainable manner. The assessment is conducted by a third-party ESG evaluation organization and includes three stages: Self-Assessment Questionnaire (SAQ), General Assessment (performing evidence-based verification), and Due Diligence Assessment to closely diagnose the overall ESG level of our partner companies. In particular, the Due Diligence Assessment through on-site visits is conducted by specialized contract consultants to enable a more objective assessment.

The results of the assessment are communicated to all suppliers, and those with lower ratings are asked to develop improvement plans and take corrective action. If a supplier does not respond to the company's request to improve its rating, or if it receives the lowest ESG rating for two consecutive years, it is required to demonstrate improvement in its ESG rating, and we have established a principle that if it fails to do so, it will be excluded from the selection of partner companies. We also provide training to improve and internalize ESG awareness in the supply chain, and the results of the ESG assessment of the supply chain are shared through the ESG Committee and reported to the top management.

Evaluation Overview

Evaluation Items	**Assess partner companies' management level across ESG areas** E Energy greenhouse gas management, pollutant management, resource management, clean production, environmental verification and laws and regulations, environmental management policy, environmental management promotion, etc. S Social contribution, occupational safety, human resource management, information protection, employee status, recruitment management, partner companies management, etc. G Compliance with Fair Trade Act, ethical management, etc.
Evaluation Frequency	Annual
Evaluation Target	Tier 1 partner companies*

* Including significant Tier 1 partner companies

Supply Chain ESG Evaluation Process

* General and Precise due diligence assessments are conducted by referring to assessment methodologies from global supply chain initiatives such as RBA, EcoVadis, etc.

Supply Chain ESG Practice Academy

Doosan Enerbility operates the Supply Chain ESG Practice Academy for the CEOs and working-level employees of the SMEs participating in ESG assessments. The academy explains the purpose of ESG management and the supply chain ESG assessment standards, and shares execution plans to help the management and the working-level employees of each SME learn how to respond to the assessment. The academy is operated in small classes with 4 to 7 participants per class.

As of the end of May 2024, 42 companies participated in the academy, and most of the companies that participated in the training reported that it was effective in helping them understand the importance of ESG. We plan to continue to provide trainings through the Supply Chain ESG Practice Academy in the future.

04 Metrics & Targets

Accomplishments in Supporting Partner Companies

Doosan Enerbility operates programs in four areas to promote shared growth with partner companies: competitiveness enhancement support, financial support, communication enhancement, and overseas expansion support. In particular, in addition to the Shared Growth Call Center, Doosan Enerbility strives to receive and proactively resolve grievances and suggestions from partner companies through periodic/non-periodic communication activities with suppliers.

Key Accomplishments

Category	2023 Highlights
Enhancing Partner Companies' Competitiveness	• Technology escrow system: 23 cases • Performance sharing system: 33 cases identified, 5 approved • Consortium for human resources development: 526 people from 117 companies • Quality guidance and improvement training for suppliers: 503 people from 205 companies
Strengthening Communication With Partner Companies	• Steering Committee: convened once • Providing New Year/Chuseok gifts to employees of partner companies: 1,752 employees per year • Visits to partner companies (to listen to grievances & suggestions): 70 companies (37 MQLT*, 5 primary partner companies, 28 secondary partner companies) • Support for improvement of work environment for in-house partner companies • Support for partner companies' safety management costs, safety manager labor costs, safety certification costs, safety training, and safety consulting • Shower/locker room renovations
Financial Support for Partner Companies	• Shared Growth Fund: KRW 75.1 billion (based on loans as of December 2023) • Nomobi.com: KRW 155.4 billion (for partner companies of Tier 1 and below) • Win-Win Partner Loan: KRW 137.8 billion (Win-Win Settlement System) • Direct support: KRW 361 million

* MQLT: Management Quality Leadership Tour

Shared Growth Index Evaluation Results

Doosan Enerbility has been managing related performance in accordance with the Fair Trade Agreement Evaluation of the Fair Trade Commission and the Shared Growth Performance Evaluation Indicators of the Shared Growth Committee, and it has obtained a rating of Excellence for five consecutive years from 2019 to 2023.

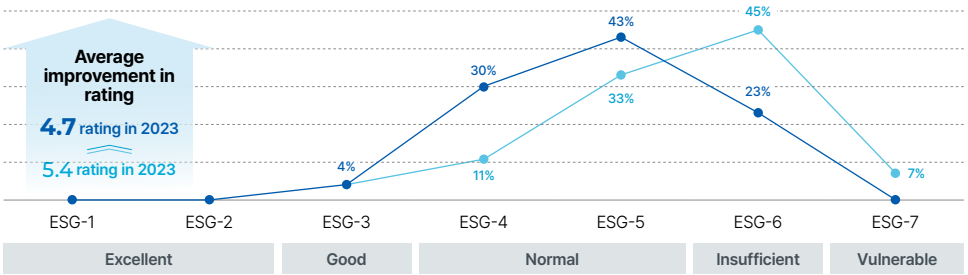
Shared Growth Index Evaluation Results

2021	2022	2023
Excellent	Excellent	Excellent

2023 Supply Chain ESG Evaluation Results

In 2023, we conducted ESG assessments for a total of 104 partner companies, including significant Tier 1 partner companies, and identified potential risks for 24 (23%) of them, which is significantly lower than the proportion of such partner companies (52%) in the previous year. We will continue to strengthen the ESG capabilities of our partner companies by managing improvement issues through guidance on visits and providing related written materials. We will also strive to improve the ESG capabilities of our partner companies by sharing the results of the supply chain ESG assessment with partner companies who participated in the assessment and providing various ESG information for benchmarking among partner companies, such as best corporate practices and major achievements in each area.

Supply Chain ESG Assessment Results



2023 ESG Rating Awards

Top performers and year-over-year Awards for improved ratings

Goals

Doosan Enerbility will continue to steadily increase the number of partner companies subject to ESG evaluation, and will minimize supply chain risks by actively supporting not only immediate improvement tasks but also mid- to long-term tasks of suppliers.

2024 Goals for Supply Chain ESG Evaluation

- Increase the number of partner companies subject to ESG evaluation : 104 → 124
- Companies with supply chain risk identified in 2023
  - Eliminate actual/potential negative impacts for 50%+ of them
- Include key nuclear power plant partner companies in the evaluations
- Conduct 100% training visits to partner companies targeted for ESG rating improvement

Social Contribution

01 Governance

Organization in Charge

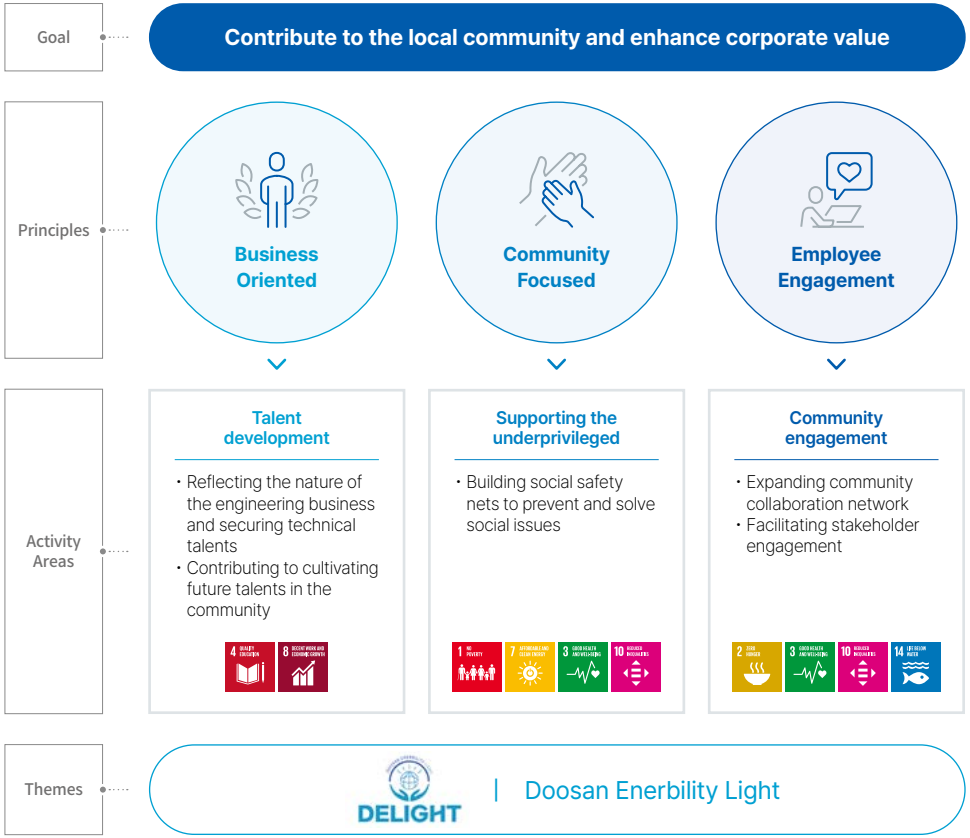
Doosan Enerbility operates the Social Contribution Committee, the highest decision-making body for social contributions, to improve the adequacy of its local community social contribution programs and the transparency of its donations/sponsorships. The Social Contribution Committee, centering around the chairperson of the ESG Committee, assesses the overall transparency of the selected beneficiary organizations and donations/sponsorships and checks to see whether the support is in line with the company's social contribution strategy.

Social Contribution Committee Organization Chart

02 Strategy

Social Contribution Principle

Doosan Enerbility is committed to contributing to the local community and enhancing corporate value through promoting social contribution activities linked to the company's business. Based on the three guiding principles of social contribution activities - Business Oriented, Community Focused, and Employee Engagement - we conduct activities to solve social problems through community cooperation and participation, and contribute to fostering future human resources so that the company and local communities can grow sustainably. In 2022, we chose 'Light' and 'Energy' as the themes for our social contribution activities to reflect the nature of our business, and in 2023, we launched 'DELIGHT', a social contribution program that embodies Doosan Enerbility's identity. DELIGHT, which means 'DELIGHT-Doosan Enerbility Light', is our social contribution strategy program that aims to delight the local community and the underprivileged by bringing them light and energy. Through DELIGHT, we will continue to operate social contribution programs and grow together with the local communities.



03 Risk Management

Community Impact Assessment

Community Engagement Process

In the process of conducting social contribution activities that affect the local communities, Doosan Enerbility listens to the needs of local communities through close communication with various institutions/organizations, and based on this, we devise policies for engagement to minimize negative impacts and maximize positive impacts.

Mid- and Long-Term Goals of Community Engagement

In 2023, Doosan Enerbility launched the 'DELIGHT' theme, which is based on the motifs of 'light' and 'energy', as a social contribution activity with an identity that reflects the characteristics of its business, and started three DELIGHT programs in 2023, expanding to four in 2024. By 2030, we will continue to operate these four programs and contribute to the local community. In addition, we will continue to develop programs according to the needs of the local community and strive to delight the local community and the underprivileged in line with the Community Focused principle, one of the three driving principles of our social contribution activities.

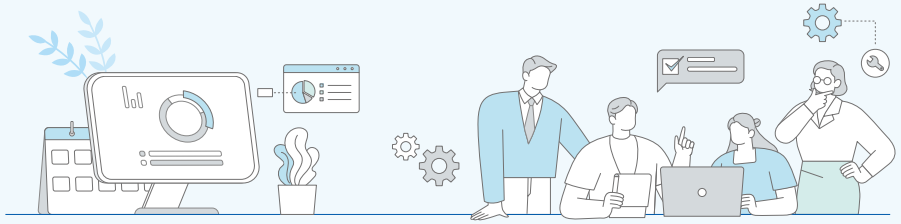
CASE

DELIGHT

Applying the community engagement process

Example of donating light fixtures to unsafe areas in 2023

- Together with Gyeongnam Province, Gyeongnam Volunteer Service Center, and Changwon City, we selected areas where DELIGHT support was urgently needed due to safety issues.
- We identified pressing safety issues through field survey and community engagement workshops.
  - Increased efficiency by engaging community expert groups and professional facilitators
- We engaged experts to lead problem-solving workshops.
  - Prioritized and addressed safety issues with local residents through community engagement workshops
  - Obtained prior consent from local residents by conducting a briefing session for them
- Determined activity scope and began installation of light fixtures
- We will continuously monitor the effectiveness of the installation



1 Community engagement workshops → 2 Problem-solving workshops

3 Field survey

04 Metrics & Targets

Talent Development

Energy Scholarship

Goal : Foster future talents in the energy business

Highlights

Providing scholarships to undergraduate and graduate students in nuclear engineering departments at universities in Korea, and considering expanding these scholarships to other energy-related departments in the future.

Achievements in 2023

Provided a total of KRW 15 million in scholarships to 6 students majoring in nuclear engineering at universities in Korea

Support for the Underprivileged

Talent Sharing

Goal : Contribute to the local community through employees' voluntarily talent donation

Highlights

Operating employee volunteer group

Achievements in 2023

- 176 hours of volunteer activities by the Youth Harmful Environment Monitoring Group.
  - Technical volunteering activities for nursing hospitals and welfare facilities 1-2 times a month.
  - Youth protection activities 1-2 times a month (March through December)
- 128 hours of volunteer services for veteran families
  - Improve housing conditions for low-income veteran families in the community (biannual)

Support for the Underprivileged

Supporting the Underprivileged Facing Energy Poverty

Goal : Contribute to the stability of living conditions of the underprivileged facing energy poverty by reducing their financial burden during winter

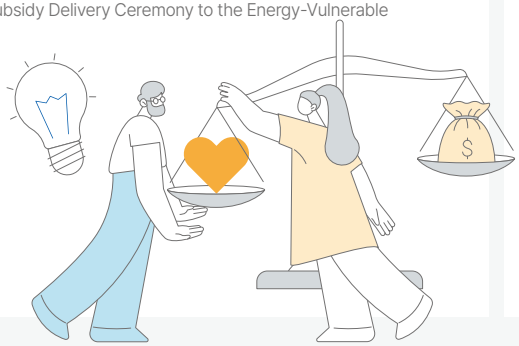
Highlights

Providing assistance with energy purchase costs to reduce financial burden for the underprivileged during winter due to inflation and rising utility bills, such as gas and electricity

Achievements in 2023

- Co-sponsored by Doosan Enerbility (KRW 100 million) and Changwon Chamber of Commerce and Industry (KRW 50 million)
- Supported 4+ member households (about 1,200 households) that were in need of additional support, among those eligible for energy vouchers in Changwon

Changwon City Subsidy Delivery Ceremony to the Energy-Vulnerable



Support for the Underprivileged

Supporting Child Welfare Facilities

Goal : Improve the quality of child welfare in the underprivileged local communities by supporting local children's centers

Highlights

Providing regular donations to local children's centers for stable operation and expansion of childcare programs.

Achievements in 2023

Sponsored 75 company-affiliated local children's centers in Changwon and Bundang, by providing KRW 250,000 per month and KRW 3 million per year (total sponsorship of KRW 225 million)

Support for the Underprivileged

Walkathon Fundraising Campaign

Goal : Converting employees' active energy into social value to support medical expenses for children with walking disabilities in local communities

Highlights

An active employee engagement campaign that provides treatment costs for children with walking disability if they reach a target number of steps within a certain time frame. Encourage employee participation in conjunction with company events, both large and small, such as CA workshops, Children's Day events, etc.

Achievements in 2023

- Walkathon Fundraising Campaign Season 5
  - 86 million steps donated / 310 employees from Changwon, Bundang and sites participated
- Walkathon Fundraising Campaign Season 6
  - 130 million steps donated / 470 employees from Changwon, Bundang and sites participated
- Delivery of donations from the Walkathon Fundraising Campaign
  - Sponsored KRW 40 million for surgery and rehabilitation of 8 children with walking disability in Changwon/Bundang (sponsorship continued for the same children to increase the effectiveness of treatment)

Local Community Development

Lighting Fixtures Donations for Unsafe Neighborhoods

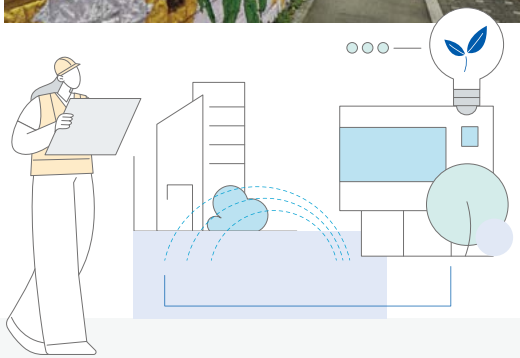
Goal : Contribute to the prevention of crimes and safety accidents in the unsafe areas of the local community by providing lightings and safety infrastructure that utilize 'light' and 'energy'

Highlights

Signature program of DELIGHT, which donates and installs nighttime security lights and safety infrastructure in unsafe areas

Achievements in 2023

- Donated 74 solar security lights in the pedestrian path outside Hansol Village apartment in Jeongja 2-dong, Bundang-gu, Seongnam-si, through a in collaboration with Bundang Police Station
- Installed 30 solar wall lights in three dark alleys of Lower Jangcheon Village in Jinhae-gu, Changwon City, painted bright murals in the alleyways, and created community gardens in neglected unused land



Local Community Development

Coastal Clean-ups

Goal : Contribute to improving water quality and preserving marine ecosystems through marine waste collection and environmental cleanup activities

Highlights

- Marine waste collection and environmental cleanup activities along the coastline of Gwisan-dong, near the company's Changwon site
  - In accordance with Changwon City's 'Saving the Clear Masan Bay' business agreement, the company adopted Masan Bay Gwisan Beach as a companion beach in 2022, and regularly commemorates Ocean Day (May 31) and International Coastal Cleanup Day (third Saturday in September) every year.

Achievements in 2023

- 66 employees participated in 3 sessions (May 17, June 2, September 13)
- Collected 22.1 tons of marine debris, including discarded nets, buoys, and fishing line.
- In December 2023, received the Gyeongsangnam-do Governor's Award for contribution to marine environment conservation

Employee cleanup activity for Ocean Day Gyeongsangnam-do Governor's Award

Local Community Development

Support for Rural Farmers

Highlights

In collaboration with Gyeongsangnam-do and local agricultural cooperatives, we selected farmers in areas where it is difficult to find labor during the harvest season and provided labor support.

Achievements in 2023

- Supported persimmon harvesting for farmers in Pasu Village, Haman-gun, Gyeongnam
  - 98 employees participated (including 90 new hires in 2023)

Engage new hires for rural farm work

Local Community Development

Overseas Medical Services

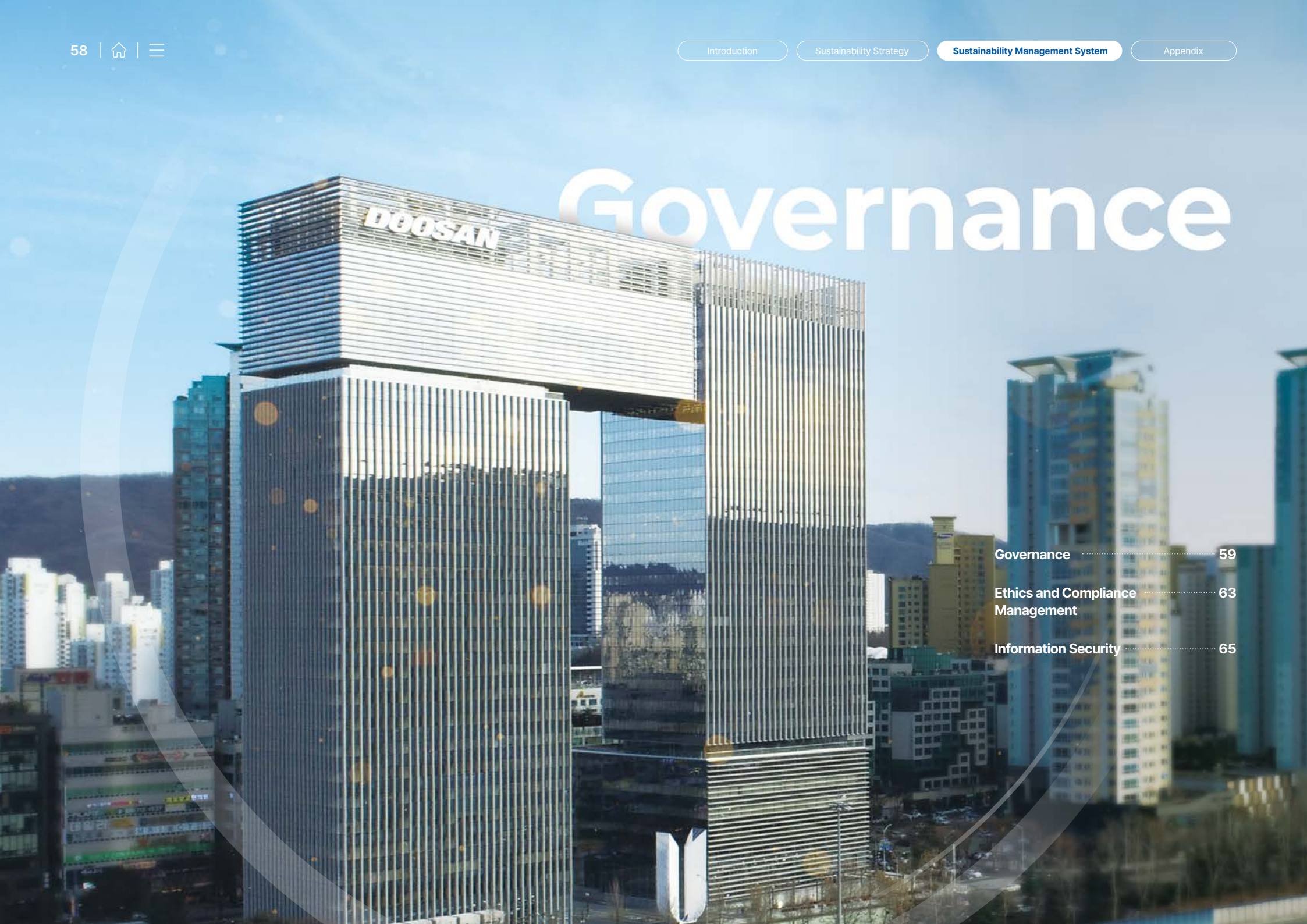
Goal : Improve healthcare access and quality for local residents at international operations and project sites

Highlights

Collaboration with Chung-Ang University Hospital to provide medical treatment, counseling, and prescription medication services for the relatively underserved communities at sites

Achievements in 2023

Organized medical outreach to four municipalities in Rasuwa, Nepal, where our overseas project site is located. Provided medical services in internal medicine, obstetrics and gynecology, orthopedics, and family medicine to a total of 1,150 local residents and soldiers and policemen at sites during a four-day period



Governance

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Governance

01 BOD Composition

Composition and Appointments

BOD Independence

Doosan Enerbility's Board of Directors (BOD) is composed of three inside directors (standing), including the CEO, and four outside directors (non-standing) who possess diverse industry experience, totaling seven members. The CEO serves as the chairman of the BOD to enhance the efficiency of managerial decision-making and business execution and realize responsible management, and to ensure independence in the composition and operation of the BOD, the proportion of outside directors in the BOD is more than the majority (50%). In addition, the company has specified the requirements for appointing outside directors in accordance with relevant laws and regulations, the Articles of Incorporation, and the BOD Regulations.

BOD Transparency

Doosan Enerbility protects the rights and interests of stakeholders by disclosing BOD-related information, such as the operating status of the BOD, rules for appointing directors, minutes of BOD meetings, and changes related to the BOD, through the company's website, business reports, and corporate governance reports.

BOD Expertise and Diversity

Doosan Enerbility strives to apply a broad perspective when forming the BOD, to ensure its independence and expertise, without committing any discrimination based on gender, religion, nationality, race, disability or political affiliation. To enhance the expertise of our outside directors, we have designated the Finance Team as a dedicated team and assigned staff members to help the directors understand the business and offer training programs to provide a status overview following the restructuring of the business portfolio. In addition, we appointed a new female outside director at the 60th Annual General Meeting of Shareholders, which was held in March 2023, contributing to the diversity of the BOD.

BOD Composition

	Inside Directors			Outside Directors			
	Park, Geewon	Jung, Yeonin	Park, Sanghyun	Lee, Junho	Lee, Eunhyung	Choi, Taehyun	Lee, Eunhang
Title	Representative Director Chairman BOD Chairman	Representative Director Vice Chairman	Representative Director President	Member of Audit Committee	Member of Audit Committee	Member of Audit Committee	Chairman of Audit Committee
Gender	Male	Male	Male	Male	Female	Male	Male
Term	2008.03.21 ~ 2026.03 (Annual Meeting of Shareholders)	2019.03.28 ~ 2025.03 (Annual Meeting of Shareholders)	2021.03.30 ~ 2027.03 (Annual Meeting of Shareholders)	2019.03.28 ~ 2025.03 (Annual Meeting of Shareholders)	2023.03.29 ~ 2026.03 (Annual Meeting of Shareholders)	2023.03.29 ~ 2026.03 (Annual Meeting of Shareholders)	2024.03.26 ~ 2027.03 (Annual Meeting of Shareholders)
Career Highlights	Currently) Chairman & CEO of Doosan Enerbility Currently) Vice Chairman of Doosan Group	Currently) Vice Chairman & COO of Doosan Enerbility Formerly) President of Doosan Vina	Currently) President & CFO of Doosan Enerbility Formerly) CEO of Doosan Bobcat	Currently) Lawyer, Kim & Chang Law Firm Formerly) Judge, Seoul Central District Court	Currently) Professor, Business Economics, Kookmin Univ Formerly) Member of the Committee of Industrial Development, Ministry of Knowledge and Economy	Currently) Advisor, Kim & Chang Law Firm Formerly) Senior Secretary to the President for Civil Affairs	Currently) Tax Accountant, Tax Firm Samhwan Formerly) Deputy Director of the National Tax Service

* The BOD consists of all directors (as of 2024.03.31)

02 BOD Operation

Operating Principles of BOD

The BOD of Doosan Enerbility is operated based on the four principles - responsible leadership, operational efficiency, fair remuneration, and stakeholder-centered approach. To ensure the fairness of the BOD's operations, directors with special interests in BOD resolutions are restricted from voting, and BOD resolutions are passed through an affirmative majority vote where the majority of directors are present. The BOD establishes an annual schedule for holding the BOD meetings by referring to the next year's internal financial settlements and the general shareholders' meeting schedule, and holds regular BOD meetings in accordance with relevant regulations. In addition, a BOD meeting can be convened if one-third or more of the directors jointly request a meeting by stating the purpose of the meeting and the date they wish to hold the meeting.

BOD Performance

Doosan Enerbility's BOD shares important issues in the company's management, including economic, environmental, and social aspects, and seeks solutions. In accordance with the Articles of Incorporation, three BOD subcommittees are established and operated to facilitate quick and efficient decision-making. In 2023, a total of 11 BOD meetings were held to consider 27 agenda items for resolution (general meeting of shareholders, BOD, investment and planning management, accounting and financial management, and other major management-related matters) and 7 agenda items for report. Through its business reports, Doosan Enerbility discloses key matters related to the operation of the BOD, including the number of meetings held and the contents of major agenda items, attendance rate of internal and outside directors, and whether they voted for or against the agenda items.

BOD Performance in Numbers

(Unit: times, cases)

Category	2021	2022	2023
No. of Meetings Convened	18	14	11
No. of Agenda Items for Resolution	39	32	27
No. of Agenda Items for Modification	0	0	0
No. of Agenda Items for Report	7	8	7

BOD Attendance

(Unit:%)

Category	2021	2022	2023
BOD Attendance	93.4	88.9	95.1
Outside Directors' Average Attendance	94.4	87.5	97.6

BOD Subcommittees

The BOD has established the Audit Committee, Internal Transaction Committee, and Outside Director Candidates Nomination Committee under the Articles of Incorporation and Operating Regulations, and delegates specialized authority to enhance the effectiveness of the BOD's operations. The Audit Committee is chaired by an expert in the field of accounting and finance to ensure its expertise, and is composed entirely of outside directors to ensure its independence. The Compliance Team is a support organization for the Audit Committee and is responsible for internal audits, internal accounting control system operation and evaluations. The Internal Transaction Committee is responsible for preventing internal transactions aimed at the private interests of the management or controlling shareholders and reviewing and approving internal transactions between subsidiaries, and is composed entirely of outside directors to ensure independent decision-making. The Outside Director Candidates Nomination Committee selects outside director candidates who are suitable for establishing transparent governance and enhancing the expertise of the BOD from among those recommended by a separate Outside Director Candidate Nomination Advisory Group composed of three outsiders. Outside director candidates recommended by the Committee are elected by the shareholders at the general meeting. To ensure independent operation, the Committee is composed entirely of outside directors, and the appointment and removal of members is determined by resolution of the BOD. The Committee may receive opinions from related executives and employees, outside persons or experts as necessary, and submits this at the general meeting of shareholders, including candidates recommended by minority shareholders in accordance with the Commercial Act. As such, Doosan Enerbility appoints outside director candidates suitable for establishing transparent governance and enhancing the expertise of the BOD through appropriate procedures that comply with the Commercial Act and internal regulations.

BOD Subcommittees

Committee Types	Key Activities	Purpose of Installation
Outside Director Nomination Committee	Recommends candidates to be appointed as outside director at general shareholders meeting	Strengthens the BOD's independence
Audit Committee	Conducts audits on the company's accounting and business	Strengthens the BOD's check and balance function based on expertise in accounting and financial matters
Internal Transaction Committee	Conducts review/approval of internal transactions with related parties	Strengthens transparency

BOD Training

We support various programs to help outside directors acquire an understanding of the company's business, objectively monitor management, and make effective decisions. In 2023, production and construction site tours were arranged for our outside directors to provide them with a first-hand view of risks that may arise in the workplace in an effort to increase their understanding of the business down to the smallest detail. For inside directors, lectures on major ESG issues are conducted by the ESG Committee every year to help them practice sustainability management more effectively.

Outside Director Training

Time of Training	Training Highlights	Attending Outside Directors
April 2023	Introducing new outside directors to our business and BOD	Outside Directors Eunhyung Lee and Taehyun Choi
July 2023	Visits to the headquarters and production sites (factories) for new outside directors and outside directors who have not yet visited Changwon headquarters, and briefings on major products	Outside Directors Joonho Lee, Jin Han Bae, Eun Hyung Lee, and Tae Hyun Choi
December 2023	Outside directors visit construction sites and inspect construction progress	Outside Directors Joonho Lee, Jin Han Bae, Eunhyung Lee, Taehyun Choi

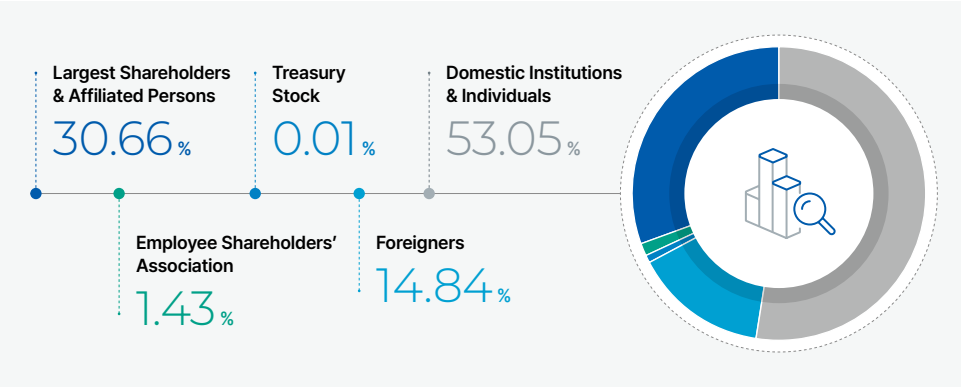
03 Shareholder Rights

Shareholders and Capital Structure

The largest shareholder of Doosan Enerbility is Doosan Corporation, and foreign/institutional/general shareholders account for more than a majority of the shareholders. According to the Articles of Incorporation, the total number of shares that can be issued is 2,000,000,000 (par value of 1 share: KRW 5,000), and all issued shares are common shares with one voting right granted per share. As of December 31, 2023, Doosan Enerbility had 640,561,146 issued shares, and excluding 95,978 treasury shares with restricted voting rights and 25,740 shares of public interest corporations, the number of shares entitled to exercise voting rights was 640,439,428, or 99.98% of the issued shares.

Shareholder Composition

(As of end of December 2023)



Protecting Shareholder Rights

Doosan Enerbility is striving to create a shareholder-friendly management environment. We announce the convening notice online and offline three weeks before the general meeting of shareholders, one week earlier than the standard date for convening the general meeting of shareholders under the Commercial Act (two weeks before the general meeting of shareholders), and disclose the audit report and business report one week before the general meeting of shareholders. To encourage shareholders to exercise their voting rights, we have introduced and implemented the written voting system, electronic voting (including electronic proxy), and proxy solicitation system. Doosan Enerbility prepares and submits the financial statements, the accompanying notes and the business reports to the Audit Committee at least six weeks prior to the Annual General Meeting of Shareholders for final approval at the Annual General Meeting of Shareholders, and the Articles of Incorporation stipulate this procedure.

Shareholder Return Policies, including Dividends

Doosan Enerbility may pay out dividends in cash and shares based on the Articles of Incorporation, and the BOD may set a reference date for determining the shareholders to receive dividends and announce it two weeks before the reference date. Quarterly dividends can be paid in cash and are resolved by the BOD within 45 days after each reference date (quarter end date).

However, Doosan Enerbility is unable to implement shareholder return policies such as dividends and share buybacks/extinguishments at this time due to the lack of distributable earnings under the Commercial Code due to the accumulated losses amidst the rapid changes in the business environment in recent years. The company is making every effort to secure distributable earnings and dividend resources through continuous improvement of its financial structure and transitioning to a sustainable eco-friendly and high-yield business portfolio without being swayed by domestic and international conditions. In the future, when some distributable profits are secured, we will closely examine and actively communicate with our shareholders to determine whether paying dividends, however small, or reinvesting in future growth engines will better contribute to increasing shareholder value. Doosan Enerbility will do its best to review and implement various viable options to increase the company's corporate value and return to shareholders.

Communication with Shareholders

To provide shareholders and potential investors with timely and useful information related to their investments, Doosan Enerbility discloses information through the company's official website and electronic disclosure system. We actively communicate with stakeholders through regular quarterly earnings briefings for domestic and foreign analysts and institutional investors, one-on-one face-to-face meetings, conference calls, non-deal roadshows (NDRs), participation in securities company conferences, and plant tours. We also communicate directly with shareholders by responding to general shareholder inquiries received through the Contact Us board on the company's official website and answering phone calls from individual shareholders.

Key Shareholder and Investor Communication Activities in 2023

Category	Target	Key Takeaways	Time
Earnings Call	Analysts	Announcing quarterly earnings	4 times (quarterly)
NDR	Institutional Investors	Announcing quarterly earnings	4 times (quarterly)
Tour Meetings	Analysts and Institutional Investors	Performance/industry updates	Often
Conference Call Meetings	Analysts and Institutional Investors	Performance/industry updates	Often
Conferences	Analysts and Institutional Investors	Securities firm conferences	4 times (quarterly)
Factory Tours	Analysts and Institutional Investors	Product/Technology Description	2 times

04 BOD Evaluation and Remuneration

BOD Remuneration Policy

Doosan Enerbility calculates and pays remuneration to its directors in accordance with the ceiling amount set through the resolution by the General Meeting of Shareholders, the stipulated BOD regulations and regulations for internal executives, and transparently discloses the information.

Remuneration Criteria for Outside Directors

Outside directors are paid a fixed monthly compensation that is calculated by comprehensively considering the level of responsibility for performing their duties and the level of compensation paid within the same industry, with no separate performance or severance pay being paid to ensure the independence of outside directors and transparency of management. Doosan Enerbility strives to set and pay outside directors an appropriate remuneration amount, so that they may effectively fulfill their duties.

Remuneration Criteria for Inside Directors

Compensation for inside directors consists of a fixed base salary, variable short and long-term incentives tied to performance, and severance pay.

Their annual salary increase rate is set in consideration of the company's ability to pay, market competitiveness, etc. but is set annually at a level similar to the annual salary increase rate of employees. The payout rate for performance-based bonuses is based on the Doosan Group's common score indicators, and in the event of exceptional reasons for payment, the payment is reported and approved by the BOD. For short-term incentives, the payout rate is calculated by multiplying the annual salary of the previous year by a score based on a comprehensive evaluation of quantitative and non-quantitative indicators of the previous business year. Long-term incentives can be granted annually within the range of 20-40% of the base salary for each grade according to the Performance Unit Operating Regulations. These incentives are paid in cash three years after the granting point, following a three-year performance evaluation. If the payment conditions based on the evaluation results are not met, the incentive will not be paid.

For restricted stock units (RSUs) and phantom stock plans, the number of shares granted is determined according to the executive performance compensation regulations, reflecting individual and organizational performance. Only executives who meet the requirement of remaining in service for a certain period (three years) from the granting point will receive the equivalent amount in shares or cash. Additionally, if an executive causes significant damage to the company through intentional misconduct or negligence, the granting can be canceled, or the payment in cash can be restricted in full or in part according to related regulations, thereby reinforcing responsible management. Severance pay is calculated according to the separate executive severance pay regulations resolved at the general shareholders' meeting.

Inside Director Performance Evaluation

When evaluating the performance of inside directors, Doosan Enerbility reflects not only financial performance but also non-financial evaluation results in KPIs. Non-financial evaluation indicators include the company's growth, market/economic conditions, portfolio improvement, EHS impact, and potential for sustainable growth from an ESG perspective. In particular, we evaluate the degree of contribution to the achievement of performance and contribution to identifying potential ESG issues and preparing strategies for sustainable growth from an ESG perspective.

Remuneration Criteria for CEO

The CEO's performance evaluation-based compensation generally reflects the results of financial indicators, such as order intake, operating profit, and free cash flow(FCF), as well as non-financial performance evaluation results, such as growth, market conditions, and portfolio improvement, and is executed transparently and fairly by going through the BOD reporting and resolution process as needed.

As of 2023, the CEO's total remuneration was KRW 2,580 million, consisting of KRW 1,569 million in base salary, KRW 997 million in bonus, and KRW 14 million in other earned income such as welfare benefits. For the base salary, the amount was determined by comprehensively considering the positions held as Chairman & CEO and Representative Director in accordance with the internal regulations enacted by the BOD, and was divided into 12 equal monthly installments. For bonuses, short-term incentive was paid in consideration of the expansion of growth driver businesses and improvements in business structure. Long-term incentives (Performance Units), which are paid after performance evaluation three years from the time of grant, were not paid in 2023 because the conditions for payment were not met as a result of the evaluation of the 2020 grant.

Separately, pursuant to the Operating Regulations of the Phantom Stock Plan (granting of phantom shares to reflect individual and organizational performance) established by the Board of Directors, 38,163 phantom shares of Doosan Enerbility were granted to the CEO in March 2023, with the final payment to be determined based on the stock price at the time of payment three years after the grant date.

2023 Board Average Remuneration

(Unit: people, KRW million)

Category	Number of People	Total Remuneration	Average Compensation Per Person
Inside Directors	3	4,573	1,524
Outside Directors	5	272	54

1) Based on 2023 business report disclosures.
2) There were 4 outside directors as of December 31, 2023, but the remuneration calculation also includes the income of one outside director who retired on March 29, 2023, up until his retirement.

2023 Board Remuneration Payouts

(Unit: KRW million)

Category	Inside Directors	Outside Directors	Employees	Inside Director/ Employee Pay Ratio
Average Remuneration Per Person	1,524	54	80	19.05 times

CEO Remuneration Status

(Unit: KRW million)

Category	CEO Compensation	Average Compensation of Employees and Executives	CEO Remuneration/ Employee Pay Ratio
Payout in 2023	2,580	80	32.25 times

Ethics and Compliance Management

01 Governance

Organization in Charge

To promote corporate ethics, Doosan Enerbility has established the Doosan Group Code of Conduct and applies and enforces it to all employees to enhance the company's competitiveness and fulfill its corporate social responsibilities through Inhwa, customer-centered business philosophy, transparent management, and innovation. A Compliance Officer appointed by the BOD is leading Doosan Enerbility's ethics and compliance efforts. The Legal Team, an organization directly under the Compliance Officer, provides support and compliance guidance for compliance with laws such as the Anti-Graft Act, the Personal Information Protection Act, and the Fair Trade Act, and conducts various ethics compliance management activities, including ethics training for employees of the headquarters and subsidiaries, as well as partner companies. In addition, the Compliance Team, which reports directly to the CFO, conducts internal audit activities in accordance with internal control standards and reports to the Audit Committee under the BOD to ensure independence.

02 Strategy

Doosan Enerbility is constantly operating an ethics and compliance management system that involves actions, such as establishing internal guidelines based on relevant laws and regulations, building support systems and infrastructure, and regularly training employees in order to conduct transparent and fair business activities. In addition, we provide ethics training to raise awareness and internalize ethical management among employees, and disclose the results of the training in our annual Integrated Report. In addition, we operate an internal reporting center to fulfill our social responsibilities with our stakeholders, including our employees, customers, and partner companies, and strive to grow as a trusted company.

03 Risk Management

Activities to Strengthen Ethics and Compliance Management

Compliance Officer Letter to Improve Employee Awareness

Doosan Enerbility sends out Compliance Officer letters to employees that contain information on major laws, systems and guidelines to encourage the employees to help establish a culture of ethics and compliance management.

Operating the Cyber Reporting Center

We operate a cyber reporting center to manage violations of laws and regulations, the Doosan Credo and Code of Conduct, or any other internal regulations. The Cyber Reporting Center, which is operated by a third party, allows reports to be filed under one's real name or anonymously, and the identity of the reporter and the contents of the report are kept strictly confidential and the imposing of penalties on good faith reporters is prohibited. The center offers services in 36 languages to encourage reporting of ethics violations and is open to all internal and external stakeholders.

Strengthening Ethical Management of Partner Companies

Doosan Enerbility introduces the Code of Conduct to its partner companies and provides information on how to report violations so that they can check for potential issues and report on non-compliance. In addition, Doosan Enerbility sends out letters every holiday reminding partner companies to comply with the Code of Conduct and adds a clause on compliance with the Code of Conduct in all contracts signed with partner companies, and establishes a corruption risk check for new partner companies .

Extending the Reach to Domestic and Overseas Operations

Doosan Enerbility is striving to raise the level of ethics and compliance management not only in Korea, but also at overseas business sites, including the global subsidiaries. All executives and employees are required to sign a "Pledge of Compliance with the Code of Conduct," and in 2023, the Compliance Officer delivered a lecture on "Laws and Systems for Compliance Management" to the company executives. In addition, we institutionalize activities to comply with ethics and compliance management by specifying compliance regulations when signing contracts with overseas business agents, thereby prohibiting illegal acts and manipulations of the law.

Conducting Ethics Training

Doosan Enerbility conducts ethical management training programs every year to raise the ethical awareness of employees. Ethics training programs are conducted annually for employees at the headquarters and overseas subsidiaries. The ethics training provides the basis for making correct judgments on ethical dilemmas that may arise in the course of business. In 2023, 2,830 domestic white-collar employees and 1,270 domestic blue-collar employees were trained on the Code of Conduct, and among overseas subsidiaries, Doosan Vina and its partner companies received training on the Code of Conduct. In addition, we started planning the establishment of a compliance system in 2023 to strengthen compliance management and as part of these efforts, we conducted compliance training programs for new executives and team leaders.

Ethics and Compliance Training Programs

Category	Unit	2021	2022	2023
No. of target people[1]	Person	3,002	2,746	2,875
No. of participants	Person	2,941	2,696	2,830
Participation rate	%	98.0	98.2	98.4

1) For white-collar employees

Internal Control

Doosan Enerbility has established compliance control standards in accordance with relevant regulations, including Article 542(13) of the Commercial Act, and appointed a compliance officer through the resolution of the BOD. In addition, the company has established company regulations in accordance with the relevant laws and regulations, which aim at protecting shareholders and investors from the risk of financial loss and damage to corporate image due to business activities and at strengthening the internal accounting management and disclosure systems. We conduct compliance support activities in accordance with the Compliance Control Standards, operate the internal accounting management system in accordance with the Internal Accounting Control Regulations and the Internal Accounting Management Guidelines, and operate internal procedures to ensure that accurate information is disclosed in a timely manner in accordance with the Disclosure Information Management Regulations. The company also reports on the evaluation results of the internal accounting management system's effectiveness for all business sites, including subsidiaries, as well as the internal audit plans and performance results to the Audit Committee every year.

04 Metrics & Targets

Doosan Enerbility regularly checks on the status of its ethics and compliance as part of its continuous efforts to improve its ethical management. Doosan Enerbility will continuously strive to practice transparent ethics and compliance management by adopting a multifaceted approach.

Major Ethics and Compliance Management Activities in 2023

Item	Key Activities	Frequency
Check on compliance with personal information protection	• Check on compliance with Personal Information Protection Act and internal regulations	Year-round
Compliance checks across the company's overall business operations	• Compliance checks for new and existing businesses • Compliance activities related to trade secrets, anti-competitive practices, antitrust, anti-graft, etc. • Appointment of Chief Information Security Officer (CISO) and announcement of Information Protection in accordance with the Information and Communications Network Act and the amended Enforcement Decree	Year-round
Compliance training for employees	• Anti-solicitation and anti-graft training • Educate employees about new and revised laws • Training for practitioners on customs laws, foreign exchange laws, FTA implementation, etc. • Compliance training on unfair competition and trade secret protection laws	Once a year or year-round
ESG Committee activities	• Review and advise on domestic and international laws related to environment, human rights, governance, etc. • Anti-corruption and ethics subcommittee activities within the ESG Committee • Participation in the UN Global Compact(UNGC) Human Rights and Anti-Corruption Working Groups	Year-round
Research Security and Ethics Review Committee activities	• Training programs for R&D project managers to strengthen research security and ethics awareness and deliberations on security ethics • 2023 Annual Review held	Continuous checks and periodic deliberations
Rewards for employee inventions	• Fair compensation issued to employees for their inventions handed over to company	Year-round

Information Security

01 Governance

Information Protection Organization and Roles

To protect its trade secrets, technical information related to research and development, the personal information of employees and various stakeholders, and intellectual property rights, Doosan Enerbility has established internal policies in accordance with information protection laws and regulations, and has also established an advanced information protection system based on continuous monitoring and security control activities.

Doosan Enerbility has appointed a Chief Information Security Officer (CISO), who meets the qualification criteria stipulated in the Act on Promotion of Information and Communication Network Utilization and Information Protection and related regulations, who is under the Chief Financial Officer (CFO). The CISO is granted independent authority and responsibility for the information protection tasks. He currently holds dual posts as both the CISO and Chief Privacy Officer (CPO) at the company. The CPO has more than 20 years of work experience under his belt in the areas of information protection and information & communications, and thus, far exceeds the level required by the relevant laws and regulations.

The CISO is responsible for establishing information protection strategies and policies necessary for the stable operation of the company's information assets, complying with relevant laws and regulations, conducting protection management activities, and establishing and implementing information protection measures based on risk management.

Information Security Organization Chart

02 Strategy

Information Security Certification

Doosan Enerbility has obtained ISO 27001, an international standard information protection certification, to protect the company's key assets based on advanced information protection management systems and processes, and conducts internal information system audits to ensure data integrity and efficient use of information resources.

Plans for Strengthening Security at Sites and Plants

Site Security Improvement

Doosan Enerbility established and applied special security guidelines in 2022 to improve the security environment at our overseas sites. In 2023, we assisted with the stabilization work at three of the sites and additionally applied special security guidelines to four more sites. As a result, the malware infection rate at the sites was lowered to the level of the headquarters, and there were substantial improvements made, such as zero account leakage and the establishment of a real-time information leakage monitoring environment. In the future, we plan to pursue a phased implementation of the security guidelines to all the sites, while providing stabilization support through rotational visits once a year for sites where the security guidelines have already been applied.

Strengthening Security at Plants

In order to prevent security threats targeting operational technology (OT), we are carrying out activities to strengthen the protection of manufacturing facilities in line with the Group's OT security strategy. In 2023, we completed the implementation of an OT security infrastructure environment and specialized security solutions for nuclear power plants, and in 2024, we are rolling out solutions to the major workshops in Changwon. We are also preparing to relocate manufacturing facilities to be more suitable for an OT-specific infrastructure environment and building a governance system for OT security.

03 Risk Management

Information Security Enhancement Activities and Programs

Security Incident Response & Management

Doosan Enerbility operates a crisis response organization to respond quickly in the event of a security incident. In the event of a security incident, such as malware or ransomware infection, we have a process established for rapid resolution so that we can take immediate action against information protection issues. We also conduct system hacking mock exercises to prevent hacking attacks in advance and respond to them at an early stage. In addition, we analyze vulnerabilities discovered through system monitoring to proactively prevent and effectively respond to security incidents.

Adoption of Global Security Control (Global SOC)

Doosan Enerbility has a real-time security threat monitoring & response system that is based on a constantly-running global operating system, and a standardized security incident response process devised based on AI technology and automation platforms, which enables the swift detection of IT security threats and risk analysis & response, all of which serve as the basis of the company's advanced security control system.

Security Control Key Tasks

Hack Detection and Monitoring

- 24×365 security event monitoring
- Notification when signs of a breach occur (Email)

Incident Response Support

- Analyze the cause and impact of a hack incident
- Support for coordinated response with external organizations (KISA, National Cybersecurity Center, etc.)
- Support for establishing recovery and prevention measures for security incidents

Reports

- Reporting on security control operations and daily checks of security systems
- Emergency reporting, including breach reporting

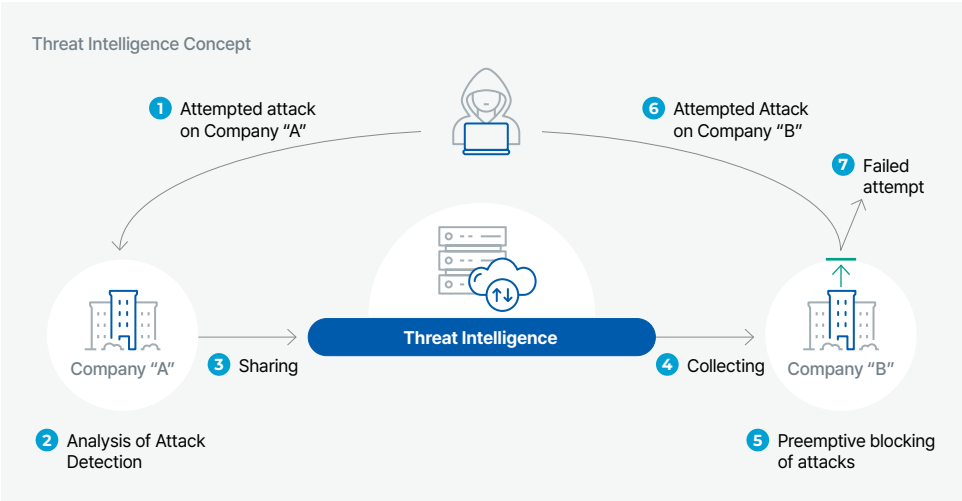
Help Desk

- 24×7 response to security questions
- Responding to inquiries regarding various security issues, etc.

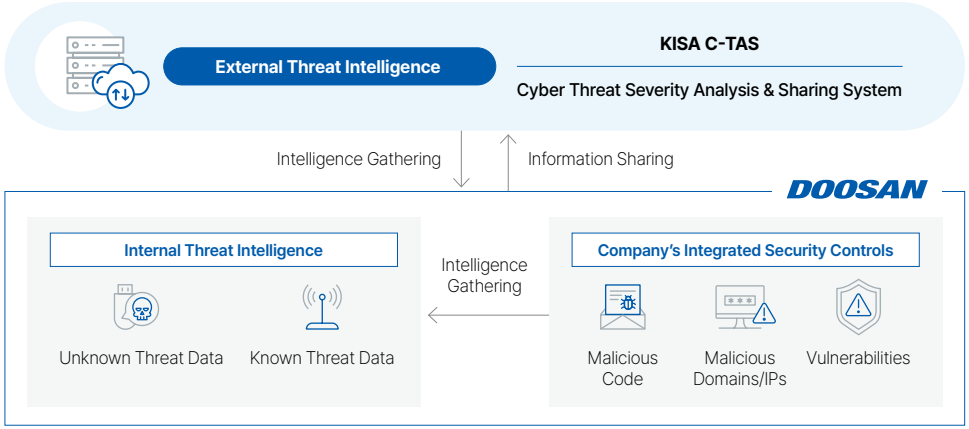
Security Controls with External Organizations

Doosan Enerbility collaborated with the Korea Internet & Security Agency (KISA), which conducts security control activities by applying threat intelligence (TI) technology based on big data, to build a Korean-type threat intelligence system (C-TAS: Cyber Threat Analysis and Sharing). By systematically collecting 'cyber threat information' and automating the results analysis and sharing of information among related organizations, we have strengthened our prevention and response to external infringement threats.

Conceptual Map of Threat Intelligence



Threat Intelligence Architecture



Information Security Awareness Activities

Security Training

Doosan Enerbility conducts "Information Security Online Training" for all employees every year on topics such as email security, trade secrets management, PC management and personal information management, and provides information security training for the new hires, new department heads, and departmental security officers. In addition, we seek to raise information protection awareness by announcing changes made to the company's security policies and news regarding the occurrence of security issues through our internal portal and emails.

Cybersecurity Drills

Reflecting the latest trends in hacking incidents, Doosan Enerbility conducts malicious email simulation drills three times a year to strengthen security awareness among employees, assuming situations such as ransomware distribution, wire transfer fraud, and information theft.

Data Protection Policy and Compliance

Scope of the Data Protection Policy

Doosan Enerbility has information protection policies and regulations set up for all areas of security management, including human resources, facilities, trade secret management, information assets, personal information, and national core technologies protection, which all employees must comply with in order to promote the importance of information protection and protect customer values. For overseas subsidiaries, the same standard policy is applied, but protection policies that are in line with local laws and internal environments are separately established and managed, so that the company may comply with the relevant security laws and regulations as befits a company in this line of business.

Disclosure in the Event of an Incident/Accident Involving Data Breach

Number of data and privacy breaches | Owing to Doosan Enerbility's commitment to information protection, there has been no violation of information protection and privacy laws or damage caused by information leakage in the past three years.

(Unit: Cases)

Category	2021	2022	2023
Company data	0	0	0
Personal information	0	0	0

Security Checks and Audits

Doosan Enerbility conducts regular and ad-hoc security checks to review the level of security policy implementation and identify areas for improvement. We identify and address security vulnerabilities through internal inspections (such as our own industrial security audits, life security inspections, and email hacking drills) and vulnerability diagnosis for IT systems, and enhance security objectivity and reliability through regular external audits (such as the National Core Technology Survey and the Defense Technology Protection Survey). We also undergo the cyber security weakness assessment every year, including cyber security hacking exercises, which is conducted by the Defense Acquisition Program Administration, to identify our areas of weakness.

Internal Inspections

Led By	CISO Organization		Group's Security Organization
Contents	Basic Security Checks	Company's Security Audits	Phishing Drills
Frequency	Once every quarter	Once a year	3 times per year
Targets	All Employees	IT Dept.	All Employees

External Audit

Led By	Ministry of Trade, Industry and Energy	Defense Acquisition Program Administration (Defense Counterintelligence Command)
Contents	Survey on the current status of national core technologies	Survey on the current status of defense technology protection
Frequency	Once a year	Once a year
Targets	Company-wide	Defense Acquisition Program Department

Status Review of Information Security Investments

Information Security Investments

Doosan Enerbility has invested approximately 6.1% of its total investment in the information technology sector on information security, and the main activities include applying global security control (GSOC), applying standard security products (NAC, firewall) at global overseas sites, applying 2FA to headquarters' partner companies and global employees, diagnosing/improving IT infrastructure and system vulnerabilities, conducting online information security training for all employees, and obtaining personal information liability insurance.

Appendix

Performance Metrics	Environmental Management Policy Guidelines	Health and Safety Policy Guidelines	Creation of Social Value
GRI Content Index	SASB Index	TCFD Index	UNGC Index
Stakeholder Communications	Association	GHG Assurance Statement	Third-Party Assurance Statement

Performance Metrics

Economic Performance Data

Summary Income Statement

Non-consolidated Basis

(Unit: Million KRW)

Subject	End of 59th term	End of the 60th term	End of the 61st term
1. Sales	3,592,881	5,284,439	6,651,862
2. Cost of Goods Sold	3,181,186	4,781,158	5,802,617
Gross Profit	411,695	503,281	849,246
3. SG&A Expenses	276,410	417,976	394,388
Operating Profit	135,285	85,305	454,858
4. Financial Income or Losses	(53,411)	(231,910)	(137,207)
5. Other Non-Operating Income or Losses	(216,564)	(1,173,885)	(552,350)
Corporate Tax Revenue	(134,690)	(1,320,490)	(234,698)
6. Non-consolidated Basis	(161,291)	(108,647)	(130,519)
Net Income	26,601	(1,211,843)	(104,179)

Consolidated Basis

(Unit: Million KRW)

Subject	End of 59th term	End of the 60th term	End of the 61st term
1. Sales	10,990,890	15,421,058	17,589,888
2. Cost of Goods Sold	9,157,134	12,865,181	14,572,886
Gross Profit	1,833,756	2,555,877	3,017,001
3. SG&A Expenses	964,393	1,449,756	1,549,683
Operating Profit	869,363	1,106,121	1,467,318
4. Financial Income or Losses	(279,996)	(477,602)	(267,951)
5. Other Non-Operating Income or Losses	(45,511)	(584,512)	(422,198)
6. Equity Method Income or Losses	20,071	(230,486)	(38,688)
Profit or Loss before Tax	563,927	(186,479)	738,482
7. Income Tax Expenses	94,565	146,997	220,960

(Unit: Million KRW)

Subject	End of 59th term	End of the 60th term	End of the 61st term
8. Income from Discontinued Operations	176,459	(119,673)	-
Net Profit for the Period	645,821	(453,149)	517,522
Ownership Interest in Controlled Entities	495,274	(772,492)	55,598
Non-Controlling Interest	150,547	319,343	461,924

* During the 60th period, the subsidiary Bumhan Mecatec was sold and reclassified as discontinued operations. The comparative financial statements of the 59th period have been retrospectively restated accordingly and differ from the financial information of the 59th period previously disclosed.

Summary Financial Statement

Non-consolidated Basis

(Unit: Million KRW)

Subject	End of 59th term	End of the 60th term	End of the 61st term
1. Current Assets	3,683,980	3,537,609	4,051,762
2. Non-Current Assets	10,347,891	9,651,931	9,632,747
Total Assets	**14,031,871**	**13,189,540**	**13,684,509**
1. Current Liabilities	7,143,996	5,059,305	6,317,892
2. Non-Current Liabilities	1,186,291	2,016,603	1,441,868
Total Debt	**8,330,287**	**7,075,908**	**7,759,760**
1. Capitalization	2,675,625	3,256,061	3,267,327
2. Capital Surplus	1,811,242	2,812,160	1,675,106
3. Other Equity Items	(1,032)	(1,749)	(1,961)
4. Accumulated Other Comprehensive Income	1,054,965	1,071,928	1,007,940
5. Retained Earnings	160,784	(1,024,769)	(23,663)
Total Equity	**5,701,584**	**6,113,632**	**5,924,749**
Debt and Equity Totals	**13,684,509**	**13,189,540**	**13,684,509**

Consolidated Basis

(Unit: million KRW)

Subject	End of 59th term	End of the 60th term	End of the 61st term
1. Current Assets	8,417,624	8,098,894	9,641,568
2. Non-Current Assets	15,302,922	14,950,888	14,999,266
Total Assets	**23,720,546**	**23,049,782**	**24,640,834**
1. Current Liabilities	10,125,766	8,059,456	9,596,750
2. Non-Current Liabilities	4,787,184	4,910,036	4,202,575
Total Debt	**14,912,950**	**12,969,492**	**13,799,325**
1. Capital	2,675,625	3,256,061	3,267,327
2. Capital surplus	1,865,083	2,870,068	1,712,764
3. Other Equity Items	46,159	45,676	46,057
4. Accumulated Other Comprehensive Income	731,325	882,653	906,691
5. Retained Earnings	773,235	58,814	1,184,532
6. Non-Controlling Interest	2,716,168	2,967,018	3,724,138
Total Equity	**8,807,595**	**10,080,290**	**10,841,509**
Debt and Equity Total	**23,720,546**	**23,049,782**	**24,640,834**

Policy Spending[1)]

Classification	Unit	2021	2022	2023
Total Spending	**Million KRW**	**1,339**	**1,603**	**2,190**
Lobby	Million KRW	-	-	-
Political Donation	Million KRW	-	-	-
Membership Fee	Million KRW	1,339	1,603	2,190
Membership Fee Details				
Overseas Construction Association	Million KRW	363	363	417
Changwon Chamber of Commerce and Industry	Million KRW	198	183	306
EPRI (Electric Power Research Institute)	Million KRW	55	164	158

1) No record of donations to political organizations, lobbyists, etc.

R&D Investments[1)]

Classification	Unit	2021	2022	2023
Total R&D investment	Million KRW	428,443	371,199	397,357
R&D Expenses to Sales Ratio	%	3.8	2.4	2.3

1) Consolidated Accounting Standards

Environmental Performance Data

※ Environmental performance data is based on domestic worksites (Headquarters, Bundang Office, Dongtan I&C, construction sites, etc.

Energy Consumption[1)]

Classification		Unit	2021	2022	2023
Total Energy Consumption		**TJ**	**3,837**	**4,078**	**4,679**
Energy Consumption (Direct)	Subtotal	TJ	1,424	1,507	1,752
Energy purchases (Indirect)	Subtotal	TJ	2,415	2,575	2,929
	Electricity	TJ	2,411	2,570	2,915
	Steam - Heat (hot water)	TJ	4	4	13
Energy Costs[2)]		KRW 1 million	49,838	78,460	92,233
Energy Intensity[3)]		TJ/100 million	0.11	0.08	0.07
Cost Reduction		KRW 1 million	830	1,026	1,421

1) Total usage may differ slightly from the sum of direct and indirect usage because the numbers were rounded off.
2) 2021, 2022 data changed due to change in energy cost aggregation criteria
3) Energy intensity = total usage/revenue (Sales for each fiscal year)

Reduction of Energy Consumption

Classification	Unit	2021	2022	2023
Total energy savings	**TJ**	**16**	**64**	**22**
Introduction of high-efficiency equipment, streamlining operational methods, etc.	TJ	16	64	22

Emission of Greenhouse Gas

Classification	Unit	2021	2022	2023
Total GHG emissions	**1,000 tCO_2-eq**	**200.3**	**214.6**	**246.3**
Direct GHG emissions (Scope 1) subtotal	1,000 tCO_2-eq	84.8	91.4	106.3
Scope 1 intensity	1,000 tCO_2-eq/ KRW 10 billion	0.24	0.17	0.16
Indirect GHG emissions (Scope 2) subtotal	1,000 tCO_2-eq	115.5	123.2	140.0
Scope 2 intensity	1,000 tCO_2-eq/ KRW 10 billion	0.32	0.23	0.21

Emission of Greenhouse Gas

Classification	Unit	2021	2022	2023
Total Other Indirect GHG emissions (Scope 3)[1)]	**1,000 tCO_2-eq**	**N/A**	**22.4**	**37.2**
Category 2 (Purchasing capital goods)	tCO_2-eq	N/A	435.7	353.5
Category 3 (Fuel and energy not included in Scopes 1, 2)	tCO_2-eq	N/A	17,361.4	19,677.5
Category 4 (Upstream transportation and distribution)	tCO_2-eq	N/A	N/A	5,685.5
Category 5 (Job-generated waste)	tCO_2-eq	N/A	2,403.6	3,796.0
Category 6 (Business travel)	tCO_2-eq	N/A	568.2	4,930.4
Category 7 (Employee Commuting)	tCO_2-eq	N/A	1,606.2	1,145.0
Category 9 (Downstream transportation and distribution)	tCO_2-eq	N/A	N/A	1,569.1
Scope 3 intensity[2)] (unit load emissions)	**1,000 tCO_2-eq/ KRW 10 billion**	**N/A**	**0.04**	**0.06**

1) Two additional categories (Category 4 and 9) have been added to the 2023 emissions calculation methodology, and may differ from 2022 emissions.
2) GHG intensity = total GHG emissions/revenue (Sales for each fiscal year)

Air Pollutant Emissions[1)]

Classification	Unit	2021	2022	2023
NOx Emissions	Ton	104.0	111.0	137.8
SOx Emissions	Ton	3.0	5.1	12.7
VOC (Volatile Organic Compound) Discharge Amount	Ton	28.0	23.8	10.9
HAP (Hazardous Atmosphere Pollutants) Discharge Amount	Ton	-	-	-
PM (Particulate Matter) Discharge Amount	Ton	8.0	8.1	7.6

1) Based on emissions from Changwon Plant

Water Harvesting, Use, and Recycling

Classification		Unit	2021	2022[1]	2023
Total Water Harvesting		**Ton**	**1,012,456**	**1,167,566**	**1,326,052**
Quantity to Take For Each Supply Source	Surface layer water	Ton	-	-	0
	Underground water	Ton	27,174	60,284	60,307
	Rainwater	Ton	-	-	0
	Wastewater from other business sites	Ton	-	-	0
	Water supply or other water support systems	Ton	985,282	1,107,282	1,265,745
	Others	Ton	-	-	0
Total water usage		**Ton**	**323,293**	**227,079**	**23,015**
Quantity of Recycled water		Ton	-	-	-
Quantity of Alternative water		Ton	-	-	-

1) Water data including domestic construction sites from 2022

Wastewater and Sewage Discharge

Classification		Unit	2021	2022[1]	2023
Total Discharged Amount of Wastewater and Sewage		**Ton**	**689,163**	**940,487**	**1,303,037**
Discharged Amount of wastewater[2]		Ton	84,565	247,495	504,539
Discharged Amount of sewage		Ton	604,598	692,992	798,498
Water Quality of Discharged Wastewater[3]	TOC	mg/l	9.1	4.5	3.4
	SS	mg/l	3.8	2.6	3.2
	N-H	mg/l	0.2	0.0	0.1
	Fe	mg/l	0.1	0.1	0.2
	T-N	mg/l	3.8	3.4	3.3
	T-P	mg/l	0.1	0.0	0.0

1) Aggregate data including domestic construction sites since 2022
2) Final wastewater discharge site based on Changwon Plant: Dukdong Wastewater Treatment Center wastewater treatment method, physicochemical treatment, etc.
3) Changwon Plant Wastewater Discharge Quality

Use and Recycling of Raw Materials

Classification		Unit	2021	2022	2023
Raw material usage total		**Ton**	**140,245**	**167,173**	**200,283**
Non-renewable raw materials	Scrap iron	Ton	77,368	90,318	113,124
	Ferroalloys	Ton	4,409	4,377	5,669
	Quicklime	Ton	5,259	6,031	7,294
	Fluorspar	Ton	649	655	882
	Lump Coal	Ton	2,905	3,736	4,662
Renewable materials	Recovered Iron	Ton	41,486	53,919	58,583
	Chip	Ton	8,169	8,137	10,069
Percentage of recycled materials used		%	35.4	37.1	34.3

Waste Generation, Disposal, and Recycling

Classification		Unit	2021	2022[2]	2023
Total waste generated		**Ton**	**36,820**	**64,590**	**88,499**
Hazardous waste total		Ton	2,907	3,360	3,977
Fertilization		Ton	-	-	-
Incineration	Without energy recovery	Ton	301	532	493
	With energy recovery[1]	Ton	-	-	-
Landfill		Ton	1,894	2,172	2,625
Other		Ton	-	5	7
Recycling		Ton	712	651	852
Recycling rate		%	24.5	19.4	21.4
General Waste Total		Ton	33,913	61,231	84,522
Fertilization		Ton	-	-	-
Incineration	Without energy recovery	Ton	774	695	588
	With energy recovery[1]	Ton	-	299	463
Landfill		Ton	392	486	1,524
Field storage		Ton	-	-	-
Other		Ton	-	13,077	28,453
Recycling		Ton	32,747	46,674	53,494
Recycling rate		%	96.6	76.2	63.3

1) Energy recoverable solid fuels from 2022 onwards
2) Standard changed from 2022 by aggregating waste from domestic construction sites and domestic business sites

Hazardous Chemical Emissions[1]

Classification	Unit	2021	2022	2023
Number of substances	Cases	3	3	4
Amount of Hazardous Chemicals Used	Ton	137	111	118

1) No off-site releases of hazardous chemicals from 2021 to 2023

Total Expenses for Environment[1]

Classification	Unit	2021	2022	2023
Total environmental costs	**KRW 1 million**	**6,950**	**4,173**	**4,078**
Amount of environmental investment	KRW 1 million	3,040	810	787
Expanse of cosigned water treatment	KRW 1 million	1,865	1,863	1,841
Clean air	KRW 1 million	1,399	909	999
Water quality	KRW 1 million	646	591	451
Sale revenue of waste	KRW 1 million	766	1,368	1,294

1) Based on Changwon Office

Environmental Management System (ISO 14001) Certification Status[1]

Classification	Unit	2021	2022	2023
Number of operations certified	Unit	2	2	2
Number of operations subject to certification	Unit	2	2	2
Percentage of environmental management system certification	%	100	100	100

1) Separate standard: Headquarter, Changwon Plant, and Bundang Doosan Tower

Purchasing Eco-Friendly Products

Classification	Unit	2021	2022	2023
Purchased amount	KRW 1 million	37,340	21,570	73,279

Violations of Environmental Laws[1]

Classification	Unit	2021	2022	2023
Number of environmental incidents	Cases	-	-	-
Fines imposed due to incidents	KRW 1 million	-	-	-

1) Only the number of violations of domestic environmental laws and regulations with fines of KRW 10 million or more was reported, and there were no such incidents in 2021-2023.

Environmental Performance Data (Consolidated Basis)

※ Environmental performance data is based on major overseas sites and subsidiaries.

Energy Usage[1)]

Classification	Unit	Overseas Construction Sites		Doosan VINA		Doosan Bobcat[2)]		Doosan SKODA
		2022	2023	2022	2023	2022	2023	2023
Energy usage total	**TJ**	**386**	**172**	**102.2**	**90**	**1,436**	**1,587**	**72**
Energy Usage (Direct) Subtotal	TJ	362	137	27.7	17	N/A	N/A	6
Energy Usage (Indirect) Subtotal	TJ	24	39	74.5	74	N/A	N/A	67

1) Total usage may differ slightly from the sum of direct and indirect usage because the numbers were rounded off
2) Doosan Bobcat's energy usage is self-calculated.

Greenhouse Gas Emissions

Classification		Unit	Overseas Construction Sites		Doosan VINA		Doosan Bobcat[1)]		Doosan SKODA
			2022	2023	2022	2023	2022	2023	2023
Total GHG emissions		**1,000 tCO_2eq**	**29.3**	**16.7**	**12.6**	**15.4**	**137.2**	**150.0**	**6.8**
Direct GHG emissions (Scope 1)	Total direct GHG emissions (Scope 1) subtotal	1,000 tCO_2eq	25.1	9.6	1.8	4.7	45.5	52.5	0.4
Indirect GHG emissions (Scope2)	Total indirect GHG emissions (Scope 2) subtotal	1,000 tCO_2eq	4.2	7.1	10.8	10.7	91.7	97.5	6.4

1) Doosan Bobcat's GHG emissions are self-calculated, and the 2022 data has been recalculated to reflect the adjusted domestic and international calculation guidelines.

Overseas Construction Sites

Classification		Unit	Overseas Construction Sites		Doosan VINA		Doosan Bobcat[1)]		Doosan SKODA
			2022	2023	2022	2023	2022	2023	2023
Total water withdrawals		**Ton**	**241,592**	**91,590**	**205,660**	**241,520**	**110,895**	**110,497**	**11,773**
Water intake by source	Surface layer water	Ton	-		-	-	-	-	-
	Underground water	Ton	133,064	53,011	-	-	-	-	-
	Rainwater	Ton	-		-	-	-	-	-
	Wastewater from other business sites	Ton	-		-	-	-	-	11,636
	Water supplies or other water support system	Ton	108,528	30,368	205,660	241,520	110,895	110,497	137
	Produced Water	Ton	-	188	-	-	-	-	-
	Others	Ton	-	8,023	-	-	-	-	-
Total wastewater discharges		**Ton**	**N/A**	**71,550**	**80,143**	**81,866**	**N/A**	**N/A**	**11,773**
Total water usage		**Ton**	**N/A**	**20,040**	**125,517**	**159,654**	**73,756**	**71,489**	**N/A**

1) Changes to 2022 data due to reporting scope changes

Waste Generation, Disposal and Recycling

Classification		Unit	Overseas Construction Sites		Doosan VINA		Doosan Bobcat[1]		Doosan SKODA
			2022	2023	2022	2023	2022	2023	2023
Total Waste Generated		**Ton**	**19,486**	**25,653**	**1,800**	**4,431**	**54,878**	**62,263**	**1,073**
Hazardous waste	Hazardous Waste Subtotal	Ton	2,268	536	819	768	758	712	203.3
	Fertilization	Ton	-	-	-	-	-	-	-
	Incineration	Ton	-	-	-	418	234	240	12.2
	Landfill	Ton	1	-	-	-	-	-	13.6
	Others	Ton	2,267	536	819	171	-	-	-
	Handled by unknown method[2]	Ton	N/A	N/A	N/A	N/A	439	402	N/A
	Recycling	Ton	-	-	-	179	85	70	177.5
	Recycled rate	%	-	-	-	23.3	11.2	9.8	87.3
General Waste Total	General Waste Subtotal	Ton	17,218	25,117	981	3,663	54,120	61,551	869.8
	Fertilization	Ton	-		-	-	-	-	-
	Incineration	Ton	587	1,262	-	425	381	237	-
	Landfill	Ton	9,379	9,634	-	467	5,058	7,791	48.7
	On-site storage	Ton	26	-	-	-	-	-	-
	Others	Ton	5,395	13,315	981	-	-		-
	Handled by unknown method[2]	Ton	N/A	N/A	N/A	N/A	6636	6,594	N/A
	Recycling	Ton	1,829	907	-	2,771	42,045	46,929	821
	Recycled rate	%	10.6	3.6	-	75.6	77.7	76.2	94.4

1) Changes to 2022 data due to expanded reporting scope
2) New metric: Waste that is not documented or tracked in the waste stream and therefore the disposition is unknown.

Social Performance Data

※ Social performance data is compiled on a separate basis.

Employee Status

Classification			Unit	2021	2022	2023
Total number of employees			**Person**	**5,622**	**5,816**	**5,965**
By employment type	Full-time	Male	Person	4,373	4,331	4,346
		Female	Person	160	179	194
	Contract Workers	Male	Person	971	1,185	1,295
		Female	Person	118	121	130
By age	Under 30 years old	Male	Person	275	353	455
		Female	Person	51	68	86
	30-50 years old	Male	Person	3,690	3,544	3,470
		Female	Person	220	223	230
	Age 50 or older	Male	Person	1,379	1,619	1,716
		Female	Person	7	9	8
By position/ role	Executive[1]	Male	Person	63	69	68
		Female	Person	-	1	1
	Senior Manager	Male	Person	2,545	2,572	2,594
		Female	Person	115	124	133
	Associate	Male	Person	1,212	1,388	1,530
		Female	Person	163	175	190
	Blue Collar Worker	Male	Person	1,524	1,487	1,449
		Female	Person	-	-	-

1) Including professional executives

Employees by Nationality

Classification	Unit	2021	2022	2023
Domestic	Person	5,215	5,395	5,320
Overseas	Person	407	421	645

Employee Breakdown by Nationality

Classification		Unit	2021	2022	2023
Korea	Number of employees	Person	5,603	5,796	5,942
	Percentage of employees	%	99.66	99.66	99.61
	Number of managerial positions	Person	3,441	3,541	3,829
	Percentage of managerial positions	%	99.74	99.75	99.69
Ukraine	Number of employees	Person	7	7	7
	Percentage of employees	%	0.12	0.12	0.12
	Number of managerial positions	Person	6	6	7
	Percentage of managerial positions	%	0.17	0.17	0.18
India	Number of employees	Person	2	4	7
	Percentage of employees	%	0.04	0.07	0.12
	Number of managerial positions	Person	-	-	-
	Percentage of managerial positions	%	-	-	-
Other	Number of employees	Person	10	9	9
	Percentage of employees	%	0.18	0.15	0.15
	Number of managerial positions	Person	3	3	5
	Percentage of managerial positions	%	0.09	0.08	0.13

Status of Managerial Positions[1)]

Classification			Unit	2021	2022	2023
Management level	Top/Senior management	Male	Person	64	69	68
		Female	Person	-	1	1
	Middle management	Male	Person	2,860	2,962	3,312
		Female	Person	119	131	140
	Junior management	Male	Person	364	352	293
		Female	Person	43	35	27
Non-Management Level		Male	Person	2,056	2,133	2,036
		Female	Person	116	133	157

1) Management positions are categorized according to the company's internal hierarchy.

Status of Female Employees[1)]

Classification		Unit	2021	2022	2023
All Employees	Number of female employees	Person	278	300	324
	Percentage of female employees	%	4.9	5.2	5.4
Management Level	Percentage of female employees	%	4.7	4.7	4.4
Top/Senior management	Percentage of female employees	%	-	1.4	1.4
Middle management	Percentage of female employees	%	4.0	4.2	4.1
Junior management	Percentage of female employees	%	10.6	9.0	8.4
Non-managerial positions	Percentage of female employees	%	5.3	5.9	7.2
Managerial positions of revenue-generating functions	Number of female employees	Person	98	98	88
	Number of male employees	Person	2,826	2,883	2,997
	Percentage of female employees	%	3.4	3.3	2.9
STEM-related jobs[2)]	Number of female employees	Person	145	167	182
	Number of male employees	Person	4,499	4,633	4,708
	Percentage of female employees	%	3.1	3.5	3.7

1) Including contract workers
2) Science, Technology, Engineering, Mathematics

Employee Diversity and Inclusion

Classification		Unit	2021	2022	2023
Employment diversity	Disabled	Person	71	66	64
	Percentage of the disabled	%	1.3	1.1	1.1
	National Merit	Person	109	109	110
	Percentage of National Merit	%	1.9	1.9	1.8

New Hires and Turnover[1)]

Classification			Unit	2021	2022	2023
New Hires	New Hires Total		Person	80	159	185
	By gender	Male	Person	77	125	164
		Female	Person	3	34	21
	By age	Under 30	Person	62	87	135
		30-50 years old	Person	13	67	46
		Age 50 or older	Person	5	5	4
	Open positions filled by internal candidates (internal hire)		%	94.0	85.2	87.8
	Cost per hire		Won	1,487,555	2,529,732	3,287,662
Turnover	Turnover total		Person	214	181	172
	By gender	Male	Person	203	167	164
		Female	Person	11	14	8
	By age	Under 30	Person	6	11	23
		30-50 years old	Person	110	79	49
		Age 50 or older	Person	98	91	100
	Turnover		%	4.6	4.0	3.8
	Number of voluntary turnover		Person	103	85	74
	Voluntary turnover[2)]		%	2.2	1.9	1.6
Average years of employment	Male employees		Year	17.5	17.4	17.4
	Female employees		Year	12.2	10.6	10.4

1) Counted full-time (white-collar, technical employees)
2) Voluntary turnover rate=number of employees who left voluntarily (retirees other than those who retired at retirement age or were dismissed due to disciplinary action) / average of current employees

Employee Training[1)]

Classification			Unit	2021	2022	2023
Total training hours			**Time**	**43,982**	**46,504**	**88,399**
Average training hours per person	By Gender	Male	Hour	7.9	7.6	14.2
		Female	Hour	7.1	14.9	25.5
	By age[2)]	Under 30	Hour	N/A	18.7	43.5
		30-50 years old	Hour	N/A	8.1	14.0
		Age 50 or older	Hour	N/A	5.0	7.7
	By training	Leadership Training	Hour	12.4	10.5	9.5
		Functional training	Hour	0.5	1.9	1.0
	By position	Management	Hour	6.8	8.6	20.0
		Non-management	Hour	9.4	7.0	10.6
	Average training hours for all employees		Time	7.8	8.0	14.8
Average training cost per person	Training & Development Total Amount		Million KRW	1,415	7,926	10,260
	Average training cost for all employees		KRW/Person	251,641	1,362,759	1,719,963
Percentage of employees participating in training			%	26.1	39.4	33.7

1) Including contract workers
2) Aggregated since 2022

Return on Investment (HC ROI)[1)]

Classification	Unit	2021	2022	2023
Total revenue (A)	Million KRW	11,283,611	15,421,058	17,589,888
Total operating expenses (B)	Million KRW	9,418,698	12,865,181	14,572,886
Total employee-related expenses (C)[2)]	Million KRW	1,608,008	1,949,175	2,057,065
HC ROI[3)]	-	2.16	2.31	2.47

1) Consolidated accounting basis
2) Total employee-related expenses: sum of salaries, severance, welfare expenses, and training expenses
3) HC ROI = (A-(B-C))/C

Percentage of Workers Covered by Collective Agreement

Classification		Unit	2021	2022	2023
Number of Workers for Membership		Person	1,809	1,741	1,635
Labor Unions, Labor-Management Committeee	Number of Membership	Person	1,460	1,449	1,428
	Ratio of Membership	%	80.7	83.2	87.3

Equal Pay Table[1)]

Classification			Unit	2021	2022	2023
Executive level	Base Salary	Ratio	%	-	99.0	99.1
	Base Salary + Cash Incentive, such as performance bonus	Ratio	%	-	98.0	98.9
Management level	Base Salary	Female	KRW 1 million	70	74	81
		Male	KRW 1 million	71	76	80
		Ratio	%	98.6	97.4	101.3
	Base Salary + Cash Incentive, such as performance bonus	Female	KRW 1 million	70	82	88
		Male	KRW 1 million	71	84	88
		Ratio	%	98.6	97.6	100.0
Non-management level	Base Salary	Female	KRW 1 million	57	61	53
		Male	KRW 1 million	57	61	53
		Ratio	%	100.0	100.0	100.0

1) Not discriminating against men and women in promotions and compensation for the same position and job function.

Parental Leave Status

Classification		Unit	2021	2022	2023
Number of employees eligible to receive parental leave[1]	Male	Person	1,772	1,618	1,668
	Female	Person	90	89	97
Number of employees who have used parental leave	Male	Person	59	53	33
	Female	Person	17	19	14
Number of employees who have returned to work after parental leave	Male	Person	50	48	42
	Female	Person	18	19	18
Parental leave return rates	Male	%	87.7	94.1	91.3
	Female	%	85.7	100.0	100.0
Number of employees who have worked continuously for 12 months after returning from parental leave	Male	Person	26	43	45
	Female	Person	18	18	16
Ratio of employees who worked for 12 months continuously after returning from parental leave[2]	Male	%	66.7	86.0	93.8
	Female	%	78.3	100.0	84.2

1) Change in eligibility criteria for parental leave: Employees with children aged 9 or younger at the end of the year
2) Retention rate for 12 months or more after returning from parental leave: (Employees who retained for 12 months after returning to work in the base year/employees who returned to work in the previous reporting period) × 100

Identification of Partner Companies[1]

Classification	Unit	2021	2022	2023
Number of Tier 1 Partner Companies	EA	N/A	775	853
Number of Core Tier 1 Partner Companies	EA	N/A	119	111
Share of Purchases from Core Tier 1 Partner Companies (%)	%	N/A	13.1	11.5
Number of Tier n Partner Companies	EA	N/A	65	89
Number of Core partner Companies	EA	N/A	184	200

1) Aggregated since 2022

Supply Chain Procurement Status

Classification		Unit	2021	2022	2023
Korea	Number of Partner Companies	Company	2,819	2,914	2,944
	Purchase amount	100 Million KRW	23,831	24,433	23,350
	Percentage of Purchase	%	76.7	70.7	76.7
Asia[1]	Number of Partner Companies	Company	153	165	140
	Purchase amount	100 Million KRW	2,934	6,358	1,081
	Percentage of Purchase	%	9.4	18.4	3.5
Europe	Number of Partner Companies	Company	189	214	196
	Purchase amount	100 Million KRW	3,033	2,925	5,455
	Percentage of Purchase	%	9.8	8.5	17.9
America	Number of Partner Companies	Company	36	39	29
	Purchase amount	100 Million KRW	1,271	828	571
	Percentage of Purchase	%	4.1	2.4	1.9
Other	Number of Partner Companies	Company	2	2	7
	Purchase amount	100 Million KRW	0.0	0.3	0.5
	Percentage of Purchase	%	0.0	0.0	0.0

1) For Asian countries except Korea

Major Negative Environmental & Social Impacts in Supply Chain and Actions Taken[1)]

Classification	Unit	2021	2022	2023
Number of partner companies assessed for supply chain ESG	Number	N/A	72	104
Percentage of core partner companies with ESG assessments	%	N/A	39.1	32.0
Number of partner companies identified as supply chain risk (or identified as having actual/potential negative impact)[1)]	Number	N/A	37	24
Percentage of partner companies with identified supply chain risks with whom we have discussed improvements[2)]	%	N/A	78.4	33.3
Number of providers with significant actual/potential negative impact terminated[2)]	Number	N/A	-	22
Number of partner companies subject to disciplinary actions	Case	-	-	1
Number of partner companies with environmental impact assessments[2)]	Number	N/A	N/A	104
Number of partner companies participating in empowerment programs[3)]	Number	N/A	N/A	N/A

1) Modified 2022 data owing to changes in the risk rating criteria (previous Grade 7-rated companies → Grades 6~7 companies)
2) New Disclosure Metrics for 2023
3) Capacity building program started in 2024, 42 companies participated as of end of May 2024

Safety and Health of Employees[1)]

Classification			Unit	2021[2)]	2022[2)]	2023
Employees	LTIFR[3)]	Total	LTIFR	0.51	0.66	1.28
		Domestic	LTIFR	1.85	1.84	1.82
		Overseas	LTIFR	-	-	-
	ODR[4)]	Total	ODR	0.25	0.35	0.43
		Domestic	ODR	2.30	1.02	0.61
		Overseas	ODR	-	-	-
	LWSR[5)]	Domestic	LWSR	775.9	423.3	185.8
	Number of Disasters	Total	Case	18	18	18
		Domestic	Case	17	18	18
		Overseas	Case	1	-	-
Partner companies	LTIFR[3)]	Total	LTIFR	0.75	0.90	0.77
		Domestic	LTIFR	2.80	3.10	4.07
		Overseas	LTIFR	-	-	-
	LWSR[5)]	Domestic	LWSR	334.0	324.7	117.3
	Number of Disasters	Total	Case	32	40	53
		Domestic	Case	31	39	52
		Overseas	Case	1	1	1

1) LTIFR, ODR, and number of disasters are calculated for all domestic and overseas worksites, and LWSR is calculated for all domestic worksites.
2) Figures for 2021 and 2022 have changed due upgrading and redefining calculation criteria.
3) Lost Time Injury Frequency Rate (LTIFR) = (total number of lost time accidents/total hours worked) × 1,000,000
4) Occupational Disease Rate (ODR) = ((number of occupational diseases + number of work-related diseases) / total hours worked) × 1,000,000
5) Lost Workday Severity Rate (LWSR) = (Total Workdays Lost/Total Work Hours) × 1,000,000

Product Safety

Classification	Unit	2021	2022	2023
Number of safety-related recall incident	Case	-	-	-
Total number of products returned due to issue of safety-related recall	EA	-	-	-
Amount of financial sanctions in relation to product safety (fines, penalties, etc.)	Won	-	-	-

Customer Satisfaction

Classification	Unit	2021	2022	2023
Customer satisfaction surveys	Point	81.0	88.1	89.9

Human Rights Assessment

Classification		Unit	2021	2022	2023
Internal Business Activities (employees)	Total assessment rate for past 3 years (A)	%	30.0	20.0	20.0
	Rate of severe risk identified among the assessed sites (B)	%	21.4	11.0	8.8
	Rate of cases where mitigable/remedial measures were taken among the sites where risks were identified (B)	%	100.0	100.0	75.0

Participation in Volunteer Work

Classification		Unit	2021	2022	2023
Number of activities		Case	15	27	17
Employee Participation	Number of Participants	Person	710	1,169	1,053
	Participation rate	%	12.6	20.1	17.7
Volunteer hours	Total volunteer hours	Hour	5,662	9,465	7,436
	Volunteer hours per person	Hour	1.1	1.6	1.2

Social Impact Spending

Classification		Unit	2021	2022	2023
Amount of Expenses	Cash	KRW 100 million	4.5	4.6	5.2
	Goods	KRW 100 million	0.1	0.7	0.7
	Operation costs	KRW 100 million	0.1	0.1	0.1
	Total	KRW 100 million	4.7	5.4	6.0
Spending details	Charitable donations	KRW 100 million	0.2	0.5	0.3
	Community investment	KRW 100 million	4.5	4.9	5.7
	Commercial initiatives	KRW 100 million	-	-	-
Activity Areas	Talent development	KRW 100 million	4.0	3.3	2.6
	Supporting the underprivileged	KRW 100 million	0.1	0.6	0.7
	Closely supporting local communities	KRW 100 million	0.6	1.5	2.7

Social Performance Data (Consolidated Basis)

※ Social performance data is based on major subsidiaries.

Status of Employees

Classification		Unit	Doosan VINA		Doosan Bobcat		Doosan SKODA
			2022	2023	2022	2023	2023
Total number of employees		**Person**	**1,561**	**1,523**	**9,546**	**9,879**	**990**
By employment type	Full-time	Person	1,561	1,523	9,128	9,566	941
	Contract Workers	Person	-	-	418	313	49

Status of Managerial Positions

Classification			Unit	Doosan VINA		Doosan Bobcat		Doosan SKODA
				2022	2023	2022	2023	2023
Management level	Top/Senior management	Male	Person	1	1	52	53	5
		Female	Person	-	-	3	4	-
	Middle management	Male	Person	106	112	1,229	1,315	29
		Female	Person	30	39	236	251	5
	Junior management	Male	Person	169	176	1,185	1,415	104
		Female	Person	96	95	413	525	11
Non-Management Level		Male	Person	1,097	1,051	5,131	5,035	661
		Female	Person	62	49	1,297	1,281	173

Status of Female Employees

Classification	Unit	Doosan VINA		Doosan Bobcat		Doosan SKODA
		2022	2023	2022	2023	2023
Number of female employees	Person	188	183	1,949	2,061	189
Percentage of female employees	%	12.0	12.0	20.4	20.9	19.1
Number of female employees in management	Person	126	134	652	780	16
Percentage of female employees in management positions	%	31.3	31.7	20.9	37.8	10.4
Number of female employees in middle management positions	Person	30	39	236	251	-
Percentage of female employees in middle management	%	22.1	25.8	16.1	12.2	14.7
Number of female employees in management roles in revenue-generating functions	Person	79	81	N/A	N/A	9
Percentage of female employees in management roles in revenue generating functions	%	23.9	23.5	N/A	N/A	6.4
Percentage of female employees in STEM-related roles	%	5.6	5.6	N/A	N/A	3.4

New Hires and Turnover

Classification	Unit	Doosan VINA		Doosan Bobcat		Doosan SKODA
		2022	2023	2022	2023	2023
Total new hires	Person	29	19	2,126	1,768	107
Turnover total	Person	137	57	N/A	N/A	88

Employees Training

Classification	Unit	Doosan VINA		Doosan Bobcat		Doosan SKODA
		2022	2023	2022	2023	2023
Total training hours	Hour	8,432	6,353	65,378	270,071	19,812
Average training hours for all employees	Hour	5	4	7	27	20

Governance Performance Data

Status of BOD[1)]

Classification	Unit	2021	2022	2023
BOD headcount total	**Person**	**7**	**7**	**7**
Inside Directors	Person	3	3	3
Outside Directors	Person	4	4	4
Other Non-Executive Directors	Person	-	-	-
Male	Person	7	7	6
Female	Person	-	-	1
Average tenure	Year	4	5	5
Number of BOD meetings	Time	18	14	11
Board attendance rate	%	93	90	95
Average outside director attendance rate	%	94	90	98
Agenda items for resolutions	Case	39	32	27
Agenda items for amendment	Case	-	-	-
Reporting agenda	Case	7	8	7

1) As of March 29, 2023

Board and Executive Compensation

Classification	Unit	2021	2022	2023
BOD compensation total	**KRW 1 million**	**691**	**5,293**	**4,845**
Inside Directors	KRW 1 million	420	5,260	4,573
Outside Directors (Excluding auditors)	KRW 1 million	66	33	-
Auditors[1)]	KRW 1 million	204	193	272
Audit Committee Members	KRW 1 million	-	-	-
Average total compensation per person	KRW 1 million	86	784	606

1) There is a total of four directors in the Audit Committee as of December 31, 2023, but for the calculation of remuneration, the income of one outside director who retired on March 29, 2023 was reflected.

Ethics Training Completion Status

Classification	Unit	2021	2022	2023
Number of people[1)]	Person	3,002	2,746	2,875
Number of employees who have completed anti-corruption (ethics) training	Person	2,941	2,696	2,830
Completion rate	%	98.0	98.2	98.4

1) For white-collar employees who can receive online training

Ethics Management Reporting and Handling Status

Classification			Unit	2021	2022	2023
Total Number of Reported Incidents			**Case**	**36**	**18**	**27**
Cyber reporting center report totals			Case	33	15	20
Reporting Entity	Identified Whistleblowers	Employees	Case	2	2	2
		Partner Companies	Case	7	4	3
		Clients	Case	10	6	4
		Other	Case	4	-	3
	Anonymous Whistleblowers	Employees	Case	3	-	1
		Partner Companies	Case	2	-	2
		Clients	Case	-	-	-
		Other	Case	5	3	5
Other paths (HR & Shared Growth, etc.) Report total			Case	3	3	7
Total Actions			Case	36	18	26
Throughput rate			%	100	100	96
Human rights violations (discrimination, grievances, reporting and handling, etc.)	Number of Reports		Case	7	5	9
	Number of actions	Offender discipline	Case	2	1	4
		Victim compensation	Case	-	-	-
		Not Charged/Closed	Case	2	2	5
		Other actions (team moves, etc.)	Case	3	2	-
		Under review	Case	-	-	-
	Total Actions		Case	7	5	9
	Throughput rate		%	100	100	100

Classification			Unit	2021	2022	2023
Corruption and unfairness (corruption, bribery, unfairness, monopolization, collusion, conflicts of interest, money laundering)	Number of Reports		Case	13	7	13
	Number of cases handled	Number of Disciplinary Actions	Case	-	2	-
		Number of cases where contracts with business partner companies were terminated or not renewed	Case	-	-	-
		Number of legal actions	Case	-	-	-
		No charges/closed	Case	13	5	12
		Under Review	Case	-	-	1
	Total Actions		Case	13	7	12
	Throughput rate		%	100	100	92
Information Protection (including customer privacy data breaches)	Number of Reports		Case	-	-	-
	Number of cases handled	Number of Disciplinary Actions	Case	-	-	-
		No charges/closed	Case	-	-	-
		Under Review	Case	-	-	-
	Total Actions		Case	-	-	-
	Throughput rate		%	-	-	-
Other (such as complaints about apartment construction sites)	Number of Reports		Case	16	6	5
	Number of cases handled	Closed	Case	16	6	5
		Under Review	Case	-	-	-
	Total Actions		Case	16	6	5
	Throughput rate		%	100	100	100

Environmental Management Policy Guidelines

Based on the corporate philosophy of establishing advanced management centered on people and nature, Doosan Enerbility operates and continuously improves upon its environmental management system to identify and minimize the environmental impact of all its business activities.

1 Environmental Management of Production and Business Facilities

For efficient environmental management of production and business facilities, Doosan Enerbility utilizes procedures such as target management, training, document and record management, and internal audits, as well as more than a dozen directives including environmental impact assessment, air quality management, and waste management.

2 Product and Service Development

Doosan Enerbility recognizes the opportunities and risks posed to the company's business by various environmental issues related to climate change, and actively promotes research and development to minimize environmental impacts at the product and service development stage.

3 Distribution Chain and Logistics

Doosan Enerbility creates, distributes, and monitors the Supply Chain ESG Code of Conduct to reduce environmental impacts from raw materials, off-site processes and transportation.

4 Waste Management

Doosan Enerbility promotes the recycling and reuse of waste generated at domestic and overseas business sites and strives to establish a company-wide culture of separate collection. To improve the recycling rate, we minimize incineration and landfill waste by finding specialized recycling companies and promote recycling. Develop and implement waste management guidelines to systematically operate and manage the entire process from waste generation to final disposal.

5 Partner Companies/Contract Workers/Service Provider Management

Doosan Enerbility conducts regular EHS (Environment, Health, and Safety) management level assessments for its on-site partner companies. When evaluating partner companies, areas related to the environment are also assessed, and we strive to reduce environmental risks throughout the supply chain by regularly educating them on environmental legal guidelines and compliance through a council of partner company representatives.

6 Engineering and Maintenance

Doosan Enerbility provides environmental guides to minimize environmental pollution that may occur during the operation and maintenance of installed power plants. The guide includes guidelines for preventing environmental pollution caused by abnormal operation. In addition, we provide operation and maintenance manuals tailored to the characteristics of each power plant to minimize environmental impacts that may occur during the operation.

7 Due Diligence in Mergers and Acquisitions

Doosan Enerbility conducts due diligence on target companies before mergers and acquisitions to identify environmental risks and proactively respond to these risks.

8 New Projects

When implementing new projects, Doosan Enerbility identifies and manages risks to minimize negative impacts, including local biodiversity.

9 Biodiversity Protection

Doosan Enerbility strives to prevent biodiversity risks and minimize or mitigate impacts on biodiversity throughout its business activities. In the course of our business, we conduct environmental impact assessments on biodiversity and various improvement activities with various stakeholders such as suppliers and clients.

10 Prevention of Deforestation

Doosan Enerbility strives to minimize deforestation by assessing the need for deforestation in advance in all business processes. We comply with relevant internal regulations and obligations for sites where the risk of deforestation is assessed to exist. We also extend these efforts to our business partners, including our supply chain.

11 Raw Material Management

Doosan Enerbility strives to expand the use of recycled raw materials and certified products in cooperation with stakeholders such as partner companies and public institutions. We consume resources efficiently and manage them to minimize negative social and environmental impacts.

Health and Safety Policy Guidelines

Doosan Enerbility operates and continuously improves upon its occupational health & safety management system to cultivate accident-free and eco-friendly workplaces and ensure the safety of the employees, partner companies, customers and local communities, based on its people-centered management philosophy and technology that enhances the value of the planet.

1 Setting Health & Safety Targets and Management Policies

Doosan Enerbility establishes management policies that reflect the management's health and safety goals and commitment to making improvements. We set and manage targets to measure the implementation level of the health & safety management system. These policies and targets are developed in consultation with frontline workers, with quantitative targets being established and publicly disclosed for transparency and accountability. The Board of Directors reports on and approves these policies and targets in compliance with relevant laws and regulations.

2 Operation of Health & Safety Management System

Doosan Enerbility establishes, documents, implements, and maintains its health & safety management system in accordance with ISO 45001 requirements and management policies. Operational management standards and work procedures, including goal management, risk assessment, education and training, document and record management and internal audits, are established and adhered to for effective on-site health and safety management.

3 Employee Engagement

Doosan Enerbility is committed to disclosing all information related to healthy and safety management and enabling employees to participate in all processes of the health & safety management system by establishing an occupational health and safety committee with representatives of employees, a procedure for each employee to individually propose health and safety-related problems or improvement measures, and creating a culture that supports this.

4 Identification, Elimination, Substitution and Control of Risk Factors

Doosan Enerbility conducts risk assessments to evaluate the level of risk and determine acceptability, including identifying risk factors related to all activities, products, services, hazardous locations, hazardous machinery, equipment and facilities, and establishes comprehensive measures by prioritizing improvement targets and measures, and determining elimination, substitution, and control measures.

5 Emergency Preparedness and Response

Doosan Enerbility operates a risk-based emergency preparedness/response plan, education/training, and follow-up processes to minimize damage to employees and property in case of emergencies that may occur due to production activities, products, people, facilities, and services at the business sites.

6 Securing Health and Safety for Contracted/Outsourced Work

Doosan Enerbility ensures the health and safety of not only its own employees, but also for all members of the workplace. We evaluate the level of safety and health to select partner companies with the ability to prevent industrial accidents, specify the conditions required to secure safety and health through the EHS Standard Terms and Conditions, and promote mutual growth through periodic evaluations of safety and health activities and budget and technical support.

7 Evaluation and Improvement

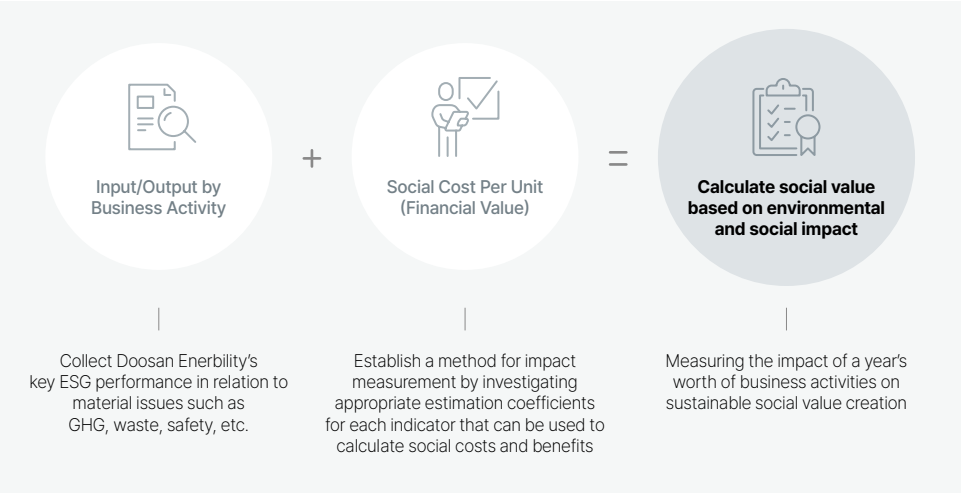
Doosan Enerbility conducts internal audits to ensure that all health and safety activities are being conducted in accordance with systematic and documented procedures of the health and safety management system, and evaluates the performance of the health and safety management system to achieve health and safety goals. Corrective actions are taken for incidents and non-conformities related to the health and safety management system and its effectiveness and efficiency are continuously improved.

Creation of Social Value

Doosan Enerbility plans to continuously increase not only the financial value generated by its business, but also the positive social and environmental impacts of its business activities. To this end, the company has been enhancing its system for converting social and environmental impacts into financial value. The resulting value calculated through social value measurement is defined as the social value created by Doosan Enerbility. We will continue to expand business activities that have positive impacts, while those that cause negative impacts will be improved to reduce their impact.

How We Measure Social Value

In order to effectively measure social value, we collected key results from management activities as input and output data. We also established an impact measurement system based on domestic and international statistics and research data to identify trends in impact measurement and introduce clear standards and measurement methods.



Social Value Measurement Results

(Unit: KRW 100 million)

Classification		Considerations for defining and measuring impact	Results of social value management
E Environmental	Greenhouse gas impact	Calculate the social cost of CO_2 to reflect domestic and international GHG emissions	-186
	Water impact	Reflects management costs associated with water use and wastewater generation from production activities in environmental impact fees	
	Waste impact	Converting the social cost of the final disposal of waste, such as incineration, into a social cost.	
	Air quality impact	Quantify environmental impacts on local communities based on emissions of key air pollutants from domestic operations	
S Social	Employee impact	Calculate the positive impact on the community through job creation and employee paychecks	+2,863
	Safety incident impact	Calculate the social benefits of preventing employee safety incidents such as industrial accidents.	
	Partner Company impact	Calculate the monetary value of additional social value created, such as increased sales indirectly generated for partner companies by supporting struggling partner companies through methods such as the Shared Growth Fund	
	Community investment	Assign non-monetary values to social value, such as employee time spent on community conservation activities.	
G Economy	Investor interest	Value added by the company's business performance	+4,806
	Government taxes	Paying taxes on a company's economic performance to contribute to the development of the country and improve the standard of living of its citizens, and translating that performance into social value.	
Total Social Value			+7,484

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Economic Performance (GRI 200)

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GRI 416 : Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	42-44
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	81
GRI 418 : Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	84

SASB Index

Topics	Code	Title	Page
Energy Management	RT-EE-130a.1	(1) Total energy consumed	71, 74
		(2) Percentage of grid electricity usage	Not Applicable
		(3) Percentage of renewable energy usage	Not Applicable
Hazardous Waste Management	RT-EE-150a.1	(1) Amount of hazardous waste generated	73, 75
		(2) Percentage of recycled hazardous waste	73, 75
	RT-EE-150a.2	(1) Number of reportable spills	73, 75
		(2) Aggregate quantity of reportable spills	73, 75
		(3) Quantity of recovered spills	73, 75
Product Safety	RT-EE-250a.1	(1) Number of recalls issued	81
		(2) Total units recalled	81
	RT-EE-250a.2	Total monetary losses incurred as a result of legal proceedings related to product safety	81
Product Lifecycle Management	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
	RT-EE-410a.3	Revenue from renewable energy and energy efficiency-related products	Not Applicable
Materials Sourcing	RT-EE-440a.1	Description of the management of risks associated with the use of critical materials	9-17
Corporate Ethics	RT-EE-510a.1	(1) Corruption and bribery	63-64
		(2) Anti-competitive behavior	63-64
	RT-EE-510a.2	Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption	84
	RT-EE-510a.3	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	84
Activity Metrics	RT-EE-000.A	Number of units produced by product category	9-17
	RT-EE-000.B	Number of employees	76-77, 82

TCFD Index

Classification	Details	Page
Governance	a) Describe the board's oversight of climate-related risks and opportunities.	33
	b) Describe the management's role in assessing and managing climate-related risks and opportunities.	33
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	34-36
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	34-36
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	34-36
Risk Management	a) Describe the organization's processes for identifying and assessing climate-related risks	34-36
	b) Describe the organization's processes for managing climate-related risks	34-36
	c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management	19, 34-36
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	37
	b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas emissions and the related risks	34, 37
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	23, 37

UNGC Index

UN Global Compact 10 Principles		Page
Human rights	Principle 1. Businesses should support and respect the protection of internationally proclaimed human rights; and	45-46
	Principle 2. make sure that they are not complicit in human rights abuses.	45-46
Labor rules	Principle 3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	78
	Principle 4. the elimination of all forms of forced and compulsory labour;	45
	Principle 5. the effective abolition of child labour; and	45
	Principle 6. the elimination of discrimination in respect of employment and occupation.	45
Environment	Principle 7. Businesses should support a precautionary approach to environmental challenges;	26-37
	Principle 8. undertake initiatives to promote greater environmental responsibility; and	26-37
	Principle 9. encourage the development and diffusion of environmentally friendly technologies.	9-10, 12-13, 16
Anti-corruption	Principle 10. Businesses should work against corruption in all its forms, including extortion and bribery.	63-64

Stakeholder Communications

Doosan Enerbility defines shareholders, clients, employees, partner companies, local communities, governments, and competitors as major stakeholder groups, and operates communication channels for each group to collect opinions smoothly. In addition, we actively refer to and respond to stakeholders' valuable opinions in corporate management to build relationships based on trust.

Groups	Key Stakeholders	Key Concerns	Communication Channels	Number of Sessions
Shareholders	• Doosan Corporation • Foreign investors • Institutional investors • Minority shareholders	• Stable mid- to long-term growth • Increase shareholder value	IR	Periodic
			Conferences	As needed
			International Non-Deal Roadshows (NDRs)	As needed
Customers	• Domestic public utilities • Domestic private power companies • International orders	• Increase customer satisfaction • Improve product quality and safety	Roadshow	As needed
			Technology Briefing	As needed
			VOC (Voice of Customer)	Often
			Attend private utility safety training	As needed
			Technology Exchanges and Seminars	Once or twice per year (semi-annually)
			Customer Satisfaction Surveys	Yearly
Employees	• Unions • Headquarters employees • International branch and office executives • Employees of foreign subsidiaries	• Establish a horizontal labor culture • Work-Life Balance	Occupational Safety and Health Committee	Quarterly, Often
			Works Councils	Quarterly
			Overseas Site Assignees Training	As needed
			Health and Safety Statutory Training	Periodic
			BG Business Performance Meeting	Monthly
			Business Status Briefing	Quarterly
			Townhall Meeting with CTO	At least 4 times a year
			Security Council Meeting (R&D Security Review Board)	Biennial
Community	• Locals • Academia • Research Organizations • NGOs	• Strategic community outreach • Doing good in the community	Social welfare center and local childcare center-linked programs	As needed
			Doosan Enerbility Community Service Council	As needed
			CSR initiatives-related organizations (Gyeongsangnam-do Province Changwon City beneficiary organizations)	As needed
			Community Outreach Council	As needed

Groups	Key Stakeholders	Key Concerns	Communication Channels	Number of Sessions
Partner Companies	• 1st and 2nd tier partner companies	• Build a win-win ecosystem • Supporting partner company sustainability	Doosan Enerbility Partners Day	Yearly
			Doosan Enerbility Partners Steering Committee	Yearly
			Shared Growth Roundtable Meeting with Tier 1 Partners	Semiannual
			Partner company Representatives Health & Safety Council	Monthly
Government	• Government • Municipalities • Authorities	• Comply with social and legal responsibilities • Paying taxes	Machinery Industry Shared Growth Promoting Foundation	Yearly
			Korea Fair Trade Commission	As needed
			Korea Fair Trade Mediation Agency	As needed
			Korea Commission for Corporate Partnership	As needed
			Korea Foundation for Cooperation	As needed
			Gyeongnam Center for Creative Economy & Innovation	As needed
			Gyeongnam PSM Council	Quarterly
			Gyeongnam Provincial Gov't Initiative for Reducing Fine Dust	Semiannual
			Environment/Firefighting Firefighting Development Conference	Monthly
			Gyeongsangnam-do Province & Changwon City	Ad Hoc basis
			Outsourced Quasi-Governmental Organizations (KETEP, KEIT)	As needed
			Gyeongsangnam-do Korea Alliance of Sustainable Development	Semiannual
			Public-Private Partnership to Save Masan Bay in Changwon City	Annual
			Changwon Coast Guard Regional Control Council	As needed
			Gyeongnam Environmental Engineers Association	Semiannual
Competitors	• Power generation equipment manufacturers • Desalination and water treatment plant companies	• Enabling fair trade and fair competition	Tech Exchange Session	As needed

Association

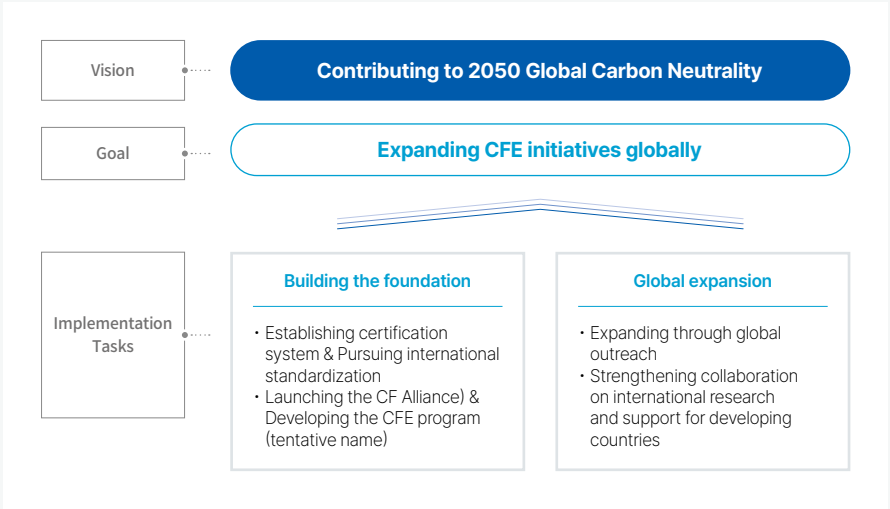
Membership in Key Associations and Organizations

Criteria Items	Association List
Common	Korea New & Renewable Energy Association, World Energy Council Korean Member Committee, The Korean Society of Mechanical Engineers, Korea Association of Machinery Industry, Korea Association of Standards and Testing Organization, Korea Engineering & Consulting Association, Korea Industrial Technology Association, Korea Chamber of Commerce and Industry, Korea Enterprises Federation, Korea International Trade Association, UNGC (UN Global Compact) Network Korea, CDP (Carbon Disclosure Project), Korea Listed Companies Council, Korea Association for Intellectual Property Services, The Korean Institute of Power Electronics, Korea Customs Logistics Association, Korea AEO Association, Energy Alliance, Korea Plant Industry Association, Carbon Free Alliance
Supply Chain	Korea Fair Competition Federation
New Business	H_2KOREA (Hydrogen Convergence Alliance), Green Ammonia Council, H_2 Business Summit
Plant EPC	Construction Association of Korea, Korea Mechanical Construction Contractors Association, Korea Housing Association, Korea Electrical Contractors Association, Korea Information & Communication Contractors Association, Korea Fire Facilities Association, Korea Construction Transport New-Technology Association, Korea Federation of Construction Contractor, KDPA (Korea Desalination Plant Association), International Contractors Association of Korea
Power Services	Korean Institute of Electrical Engineers, the Korea Society of Mechanical Engineers, Korea Society for Fluid Machinery, Korea Wind Energy Industry Association, Korea Wind Energy Association, Jeonnam Wind Industry Association, Energy Transition Forum, Korean Society for Propulsion Engineers, Korea Project Management Association, Korea Society for Fluid Machinery, Korean Society of Combustion, ACGT, Korea Ocean Grid Industry Association
Nuclear	Korea Atomic Industrial Forum, Korean Nuclear Association, Korean Nuclear Society, Korea Radioactive Waste Society, Korea Hydro Power Industry Association, Korea Society of Pressure Vessels and Piping, Korea Defense Industry Association, Korea Society for Fluid Machinery
Quality	Korea Society for Non-destructive Testing, the National Quality Master Association, Korea Master Hand Association, NIAC, Korea Standards Association, Korea Electric Association

Carbon-Free (CF) Alliance

A global movement to spread Carbon-Free Energy (CFE) initiatives to promote decarbonization in the energy sector by utilizing various carbon-free energy sources, such as nuclear power and hydrogen renewables.

Joined the Board of Directors
(Oct. 2023)



GHG Assurance Statement

Verification Opinion Statement

Verification Target

Korean Foundation for Quality (hereinafter 'KFQ') has conducted a verification of Scope 1, 2 Greenhouse Gas Emissions (hereinafter 'GHG emissions') of Doosan Enerbility (hereinafter 'Company') for 2023.

Verification Scope

KFQ's verification scope covered on all facilities and emission sources under the operational control and organizational boundary of Company during 2023.

Verification Criteria

The verification process was based on 'Rule for emission reporting and certification of greenhouse gas emission trading Scheme[1)]], [2006 IPCC Guidelines for National Greenhouse Gas Inventories] and [ISO14064-1] for every applicable part.

1) Notification No. 2023-221 of Ministry of Environment

Level of Assurance

The Verification has been planned and conducted as the 'Rules for verification of operating the greenhouse gas emission trading scheme', and the level of assurance for verification shall be satisfied as limited level of assurance. And it was confirmed through an internal review whether the process before the verification was conducted effectively.

Verification Limitation

The verification shall contain the potential inherent limitation in the process of application of the verification criteria and methodology.

Verification Opinions

Regarding to the data of the Greenhouse Gas Emission Consumption from the report through the verification, KFQ provides our verification opinions as below;

1) GHG emissions for 2023 of Company were properly calculated according to the verification standards.
2) The data and information used in calculating the GHG emissions were appropriate, reasonable, and no significant errors or omissions could affect verification statement were not found.
3) Thus, KFQ concludes that the GHG emissions of Company in 2023 is correctly calculated and stated in accordance with 'Rule for emission reporting and certification of greenhouse gas emission trading Scheme'.

Classification			Scope 1	Scope 2	Total
Emissions (Unit: tCO_2eq)	An overseas Branch	VINA	4,732.458	10,712.215	15,444
		SKODA	412.561	6,390.35	6,802
	11 Overseas Construction Sites		9,557.56	7,108.259	16,661
Energy Usage (Unit: TJ)	An overseas Branch	VINA	16.809	74.019	90
		SKODA	5.639	66.814	72
	11 Overseas Construction Sites		136.735	38.898	172

* The totals in this verification statement do not match the totals in emission trading scheme because the total emissions of each facility are calculated by truncating to integer units

June 14th, 2024

CEO **Ji-Young Song**

Korean Foundation for Quality

National Institute of Environmental Research

Korean Foundation for Quality

Ji Young Song

Verification Opinion Statement

Verification Target

Korean Foundation for Quality (hereinafter 'KFQ') has conducted a verification of Scope 3 Greenhouse Gas Emissions (hereinafter 'GHG emissions') Doosan Enerbility(hereinafter 'Company') for 2023.

Verification Scope

The verification Scope covered the emission categories selected by the company and the emissions between January 1st, 2023 to December 31st, 2023.

Verification Criteria

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

Criteria	• WBCSD/WRI, Corporate Value Chain (Scope 3) Accounting and Reporting Standard • ISO 14064-1:2018 • GHG Protocol Corporate Standard • Rule for emission reporting and certification of greenhouse gas emission trading Scheme[1)] • ISO 14064-3:2019
Coefficient	• Environmental Product Declaration evaluation coefficient (2021) • EPA, GHG Emission Factors Hub(2022)

1) Notification No. 2023-221 of Ministry of Environment

Level of Assurance

The verification was performed in accordance with the procedures specified in ISO14064-3 and the assurance level of the verification was performed to satisfy the limited assurance 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.

Verification Opinions

Through the verification process according to the 'ISO14064-3:2006' KFQ could obtain reasonable basis to express following conclusion on the Greenhouse Gas Emission Report.

1) GHG emissions for 2023 of Company were properly calculated according to the verification standards.
2) For GHG emissions, no material errors or omissions were found, except for emissions information not considered within the selected category range.
3) The criteria and process established or estimated/assumed by the company to calculate GHG emissions were transparently reflected in the internal calculation process.

Summary of Scope3 GHG Emission Results

- **Organization:** Doosan Enerbility
- **Emission calculation period:** The emission calculation period is from January 1st to December 31st, 2023.

Company Scope 3 Emissions verification Results (Unit : tCO_2eq)

Category	Scope 3 Emissions
2 Capital goods	353.498
3 Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2	19,677.497
4 Upstream Transportation and Distribution	5,685.528
5 Waste Generated in Operations	3,796.018
6 Business Travel	4,930.374
7 Employee Commuting	1,145.011
9 Downstream Transportation and Distribution	1,569.096
Total	**37,157.022**

June 18th, 2024

CEO **Ji-Young Song**

Korean Foundation for Quality

National Institute of Environmental Research

Korean Foundation for Quality

Ji Young Song

Third-Party Assurance Statement

Dear Stakeholders of Doosan Enerbility

Korean Foundation for Quality (further 'KFQ') has been requested by Doosan Enerbility to conduct an independent verification on the 「2024 Doosan Enerbility Integrated Report」 (further 'the Report'). KFQ has responsibility to provide an independent verification opinion against the criteria and scope of assurance as specified below. Doosan Enerbility has sole responsibility for the preparation of the Report.

Standards and Scope of Assurance

- **Verification Criteria :** AA1000AS (v3), AA1000AP (2018)
- **Verification Type :** Type 2 [Verification of compliance of 4 reporting principles and Reliability of Data Collection Method]
- **Verification Level :** Moderate [Verification based on limited evidence collected]
- **Verification boundary :** Headquarters, Bundang office and overseas subsidiaries
- **Verification Scope :** Compliance with the 4 reporting principles (Inclusivity, Materiality, Responsiveness, Impact) according to AA1000AP and the GRI Standards 2021 reporting requirements

※ GRI Standards (2021) Reporting Principles

- Universal Standards :

Reporting in accordance with GRI Standards (2021), compliance with the following requirements

Requirements	Compliance
1. Reporting principles	○
2. General disclosures	○
3. Determine material topics	○
4. Report the disclosures in GRI 3 material topics 2021	○
5. Report the disclosures from the GRI topic standards for each material topic	○

Requirements	Compliance
6. Provide reasons for omission for disclosures and requirements that the organization cannot comply with	○
7. Publish a GRI content index	○
8. Provide a statement of use	○
9. Notify GRI	○

- Topic Standards

Requirements	GRI Standards 2021	
Report the disclosures in GRI 3 Material topics	• GRI 205 : Anti-corruption • GRI 305 : Emissions • GRI 403 : Occupational Health and Safety	• GRI 405 : Diversity and Equal Opportunity • GRI 416 : Customer Health and Safety

Methodology

In order to assess the reliability of the sustainability performance in the Report against above mentioned criteria, the audit team reviewed sustainability-related processes, systems, internal control procedures, and available performance data. The documentation the audit team reviewed during the verification includes:

- **Non-financial information :** e.g., data provided by Doosan Enerbility, disclosed business reports, and information obtained from media and/or the internet; and
- **Financial information :** i.e., data disclosed in the electronic disclosure system (dart.fss.or.kr) of the Financial Supervisory Service and data posted on the homepage were used, but these contents are not included in the scope of verification.

The assessment was performed by document verification and interview the person in charge including on-site assessment. The validity of the materiality assessment process in the Report and the material issues selection considering stakeholders, data collecting & management, and validity of the report preparation procedures as well as the description in the Report were assessed, but external stakeholder interviews were not conducted. Afterwards, it was confirmed that some errors, inappropriate information and misstatement found in the above steps were appropriately revised before publishing the Report.

Competency and Independence

The audit team was consisted in accordance with KFQ's internal regulations. KFQ has no conflict of interest to the Doosan Enerbility business which could threaten the independence and impartiality of verification, other than providing third-party verification services.

Limitations

The completeness and responsiveness of sustainability performance represented in the Report have inherent limitations due to its nature and the methodology used to determine, calculate and estimate its performance. In accordance with the terms of the contract, we assessed the information and evidence provided by the Doosan Enerbility. We did not perform any further assessment on raw data.

Findings and Conclusions

As a result of the verification, the Report was prepared in accordance with the requirements for 'in accordance with GRI standard 2021' and the assessment team found reasonable objectives to guarantee the AA1000AP (2018) and the AA1000AS(v3) Type 2 assurance level. We also found no significant errors or inadequacies in the Report regarding compliance with reporting principles.

Inclusivity

Doosan Enerbility defines the 7 stakeholder groups (shareholders, customers, employees, local communities, partners, government, competitors) and identifies material ESG issues related to stakeholders' interests through the communication channels considering the characteristics of each group. The audit team could not find any major stakeholders that were omitted during this process, and it was confirmed that Doosan Enerbility is making efforts to reflect the collected opinions of stakeholders in its management strategy.

Materiality

Doosan Enerbility organized an 10 issue pools through industry classification, analysis of domestic and international trends, and analysis of press and media issue. Also they conducted a survey of internal and external stakeholders to select the most material issues among the 10 issues, and 5 issues were finally selected as ESG Material Topics. It was confirmed that the identified issues resulting from the materiality assessment were fully described in the Report without any omission.

Responsiveness

Doosan Enerbility consistently communicate with stakeholders to hear to their feedback and main interests. Nothing came to our attention to suggest that its responses and performances are inappropriately described in the Report.

Impact

Doosan Enerbility selects and monitors material issues in consideration of their mutual relationship with the external environment of the company, and reports the contents as much as possible. Nothing came to our attention to suggest that it does not properly assess and report impacts relating to material issues.

Recommendation for Improvement

- We hope to expand the scope of reporting through efforts to generate, collect, and manage ESG-related data from a more diverse perspective so that Doosan Enerbility's ESG management performance can be widely communicated to stakeholders.
- As the utilization of qualitative and quantitative ESG performance data in the Sustainability Report (Integrated Report) becomes more diverse, we expect the management standards for required data and information to be advanced through regular monitoring of the internal data management system.
- We also expect that efforts and attempts to interpret and analyze internal data in various ways will enable ESG performance to be communicated to stakeholders more meaningfully.

June, 2024
Seoul, Korea

CEO **Ji Young Song**
Korean Foundation for Quality (KFQ)

Ji Young Song

kfq Korean Foundation for Quality

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Report publication date	July 2024

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