

Green and Growth Energy for the Future, Reliable and Synergistic Energy for the People

2025 Edition

Enhancing the Pride of KOWEPO Members (With Pride), Creating Happiness for the People (With People)





KOWEPO's **Energy Innovation** Continues to Drive the Transition Toward a **Carbon-Neutral Future**

KOWEPO is actively advancing the transition to clean energy to realize carbon neutrality. The company is establishing an eco-friendly power generation system by timely converting aging coal-fired power plants into high-efficiency combined cycle plants. In addition, KOWEPO has developed a strategic roadmap for expanding renewable energy and is continuously increasing the share of renewable generation facilities. By strengthening its technological capabilities in hydrogen-ammonia co-firing and CCUS, KOWEPO is laying the foundation for zero-carbon power generation and leading innovation in green energy technologies.

A Promise for a Sustainable Future, Fulfilled Through New Businesses and Emerging Technologies

KOWEPO embraces change and is committed to shaping a sustainable future through the development of cutting-edge technologies and the expansion of global markets. Positioning growth-driven challenge as a core corporate value, KOWEPO continues to pursue transformation and innovation to rise as a top-tier player in the global energy market, beyond Korea. The company is expanding its global network in regions such as Southeast Asia and the Middle East to lay the foundation for sustainable growth. By integrating digital technologies into power generation operations, KOWEPO maximizes operational efficiency and leads innovation in the energy industry through next-generation technologies. All of these efforts reflect KOWEPO's unwavering commitment to a sustainable future, and the company will continue to advance through bold challenges and innovation.



Creating an Organization that Grows Together through Communication and Empathy

KOWEPO is fostering a trustworthy organizational culture based on open communication and empathy. By operating various communication channels—including regular meetings with the CEO—we actively reflect the voices of our employees in our management practices. We are continuously improving a competency- and performance-based compensation system to ensure that every employee is treated with respect and evaluated fairly. Additionally, we are promoting a more efficient work culture through improvements to work-life balance policies, striving to create a trusted workplace and a people-centered corporate environment. Moving forward, KOWEPO will continue to build a sustainable organization where trust and communication thrive, and people remain at the heart of everything we do.

↓ CEO Town Hall Meeting at Taean Power Headquarters (February 2025)



↑ Head Office CEO Town Hall Meeting (February 2025)

With People

People-Centered Management through
Communication and Empathy

Expanding into the Global Renewable Energy Market – Reaching a Wider World

KOWEPO is expanding its presence in the global renewable energy market by securing large-scale projects across the Middle East, including in Oman and the UAE, thereby demonstrating its technological expertise and project execution capabilities. The 500MW Manah 1 Solar Power Plant in Oman marks the first large-scale renewable energy project awarded to a Korean company in the country, establishing a strategic foothold for KOWEPO in the Middle Eastern energy market. In the UAE, the Az-Zarban Solar Project—worth over KRW 1 trillion—is a mega-scale initiative led by KOWEPO, from construction to operation and maintenance. Furthermore, KOWEPO is collaborating with EDF-R, a subsidiary of France’s state-owned EDF, to develop an integrated solar, wind, and green hydrogen project in Morocco, contributing to the creation of a next-generation energy hub connecting Africa and Europe. Through these pioneering efforts, KOWEPO is realizing its vision as a global energy leader accelerating the transition to a carbon-neutral era.

↓ Visit to the Az-Zarban Solar Power Plant Construction Site in the UAE (January 2025)



↑ Manah 1 Solar Power Plant Completion Ceremony in Oman (January 2025)



With Pride

Enhancing KOWEPO Employees’ Pride through Future Growth

About This Report

Report Overview

Since 2006, KOWEPO has been publishing sustainability reports to transparently disclose sustainability management information to internal and external stakeholders and to actively engage with them. This report reflects the company's commitment and efforts to build a sustainable future.

Reporting Period and Scope

This report covers the period from January 1, 2022, to December 31, 2023. To enhance stakeholder understanding, certain key issues from the first half of 2024 have also been included. For major quantitative data, a three-year performance record is disclosed to facilitate trend analysis. The reporting scope includes KOWEPO's headquarters and domestic business sites, while some disclosed data also reflect the performance of overseas operations. Financial data is reported in accordance with the Korean International Financial Reporting Standards (K-IFRS) and is based on the consolidated financial statements presented in the business report.

Reporting Standards

This report has been prepared in accordance with the GRI (Global Reporting Initiative) Standards 2021, the international sustainability reporting guidelines. Additionally, it complies with the ISO 26000 standard for corporate social responsibility, the TCFD (Task Force on Climate-related Financial Disclosures) recommendations for climate-related financial disclosures, and the SASB (Sustainability Accounting Standards Board) standards, which reflect industry-specific characteristics.

Additional Information

To ensure the reliability, fairness, and completeness of the reported data, third-party verification was conducted by the independent verification body, SGS KOREA. The report has been verified in accordance with the AA1000 international assurance standard, and the results are included in the assurance statement.

Inquiries Regarding the Report

For any questions regarding this report, please contact us using the details provided below.

Address

(32140) 285 Jungang-ro, Taean-eup, Taean-gun, Chungcheongnam-do, Republic of Korea

Responsible Department

Planning & Control Office, Planning Department

Company Website www.iwest.co.kr

Email mskim@iwest.co.kr

Tel 041-400-1212

Cover Story

This report embodies KOWEPO's mission and identity as it strives to become a global leader in clean, eco-friendly energy. By ensuring the stable operation of power generation facilities and pioneering the renewable energy sector—including hydrogen, solar, and wind power—the company is advancing its commitment to sustainable energy leadership.



KOWEPO Social Media

 **YouTube**
[KOREA WESTERN POWER CO., Ltd.](https://www.youtube.com/KOWEPO)

 **Blog**
blog.naver.com/iamkowepo

 **Facebook**
www.facebook.com/kowepo

 **Instagram**
www.instagram.com/iam_kowepo

Contents

Overview

CEO Message	03
Corporate Overview	05
KOWEPO's Journey	07
Business Introduction	08

Sustainable Future Story



ESG Management

ESG Highlight	35
ESG Framework	36
Double Materiality Assessment	38
Stakeholder Engagement	40

ESG Factbook

Environment	42
Social	55
Governance	73
ESG Data	81

Appendix

Financial Data	90
Business Data	91
GRI Index	92
SASB Index	94
TCFD Index	95
UN SDGs	97
Major Awards and Memberships	98
Third-Party Assurance Statement	100

Interactive Guide

This report incorporates interactive features to enhance reader accessibility and provide more comprehensive information.



Move to the First Page



Move to the Table of Contents page



Move to the Previous Page



Direct Link Access

Overview

→ CEO Message

Corporate Overview

KOWEPO's Journey

Business Introduction

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

CEO Message



“KOWEPO is committed to keeping pace with rapid changes while implementing sustainable management that meets public expectations.”

Dear Valued Stakeholders,

Since its establishment in 2001 following its separation from Korea Electric Power Corporation (KEPCO), KOWEPO has been actively pursuing various initiatives in thermal, combined-cycle, and renewable energy generation, backed by its stable technological expertise. Today, KOWEPO is expanding beyond the domestic market, successfully leading the growth of the carbon-free and renewable energy future overseas, reinforcing its position as a global leader in energy. This achievement has been made possible by your unwavering support and trust, for which we express our deepest gratitude.

The business landscape surrounding corporations is evolving rapidly, driven by trends such as environmental sustainability, decentralization, and digitalization, which are also reshaping the power industry at an unprecedented pace. In particular, the increasing integration of artificial intelligence (AI) and data industries is fueling a continuous rise in electricity demand, requiring power generation companies to adapt swiftly. As a state-owned power generation company, KOWEPO is making every effort to stay ahead of these changes. We have commenced commercial operations of the Gimpo Power Plant, featuring Korea's first domestically developed gas turbine, and achieved a world-first milestone in demonstrating a 60% hydrogen co-firing rate. Through these technological advancements, KOWEPO continues to solidify its leadership in the domestic power industry.

CEO Message

KOWEPO has established ‘KOWEPO VISION 2035’ and is implementing structured strategic tasks. Also, it is concentrating its capabilities on fulfilling its mission to ‘create safe and clean energy through continuous innovation, contributing to the advancement of society and the public good.’ We will not settle for our current achievements but will continue to strengthen our future competitiveness. To pursue sustainable growth, we are committed to actively implementing the following initiatives.

First, we will prioritize the safety and well-being of our employees in all management activities.

Safety can never be overemphasized. No matter how outstanding our business achievements may be, a workplace that is not safe cannot ensure long-term sustainability. To instill and internalize the value of safety across the entire organization, we have established a ‘Steering Committee’ under the direct supervision of the CEO. KOWEPO is committed to identifying potential risk factors, strengthening its safety management system to prevent accidents, and creating a work environment where employees can thrive.

Second, we will enhance the stability and efficiency of power generation while successfully driving the transition to clean energy.

As a key pillar of energy security, KOWEPO is committed to improving the stability and efficiency of power generation operations, including fuel supply management. By expanding renewable energy generation—such as offshore wind and solar power—and ensuring the timely completion of LNG combined-cycle power plants, we will contribute to achieving the national Net-Zero goal.

KOWEPO will not settle for its current achievements but will continue to innovate, strengthening its future competitiveness as a leading energy company.

Third, we will create continuous and feasible new growth drivers for the future.

KOWEPO has established the KOWEPO Innovation Growth Committee to consolidate company-wide innovation capabilities and systematically advance key innovation initiatives that drive future growth. We are actively expanding our presence in the solar power-based Middle Eastern market while pioneering new markets and business opportunities to secure future projects. Additionally, we are committed to developing new digital business models by leveraging artificial intelligence technology and power generation data.

Fourth, we will strengthen ethical management and foster a flexible organizational culture through active communication.

We will enhance our company-wide control tower functions to ensure rigorous internal controls and compliance management, striving to build a transparent and responsible organization based on fairness and integrity. By reinforcing open communication and collaboration with various stakeholders—including field operations, local communities, and the public—we will generate productive synergies. Additionally, we will cultivate a culture of open discussion to maximize creativity and efficiency.

Moving forward, KOWEPO will adapt flexibly to social changes and advancing toward a promising future with confidence and momentum. I sincerely appreciate your continued support and encouragement, and I kindly ask for your unwavering partnership in the journey ahead. Thank you.

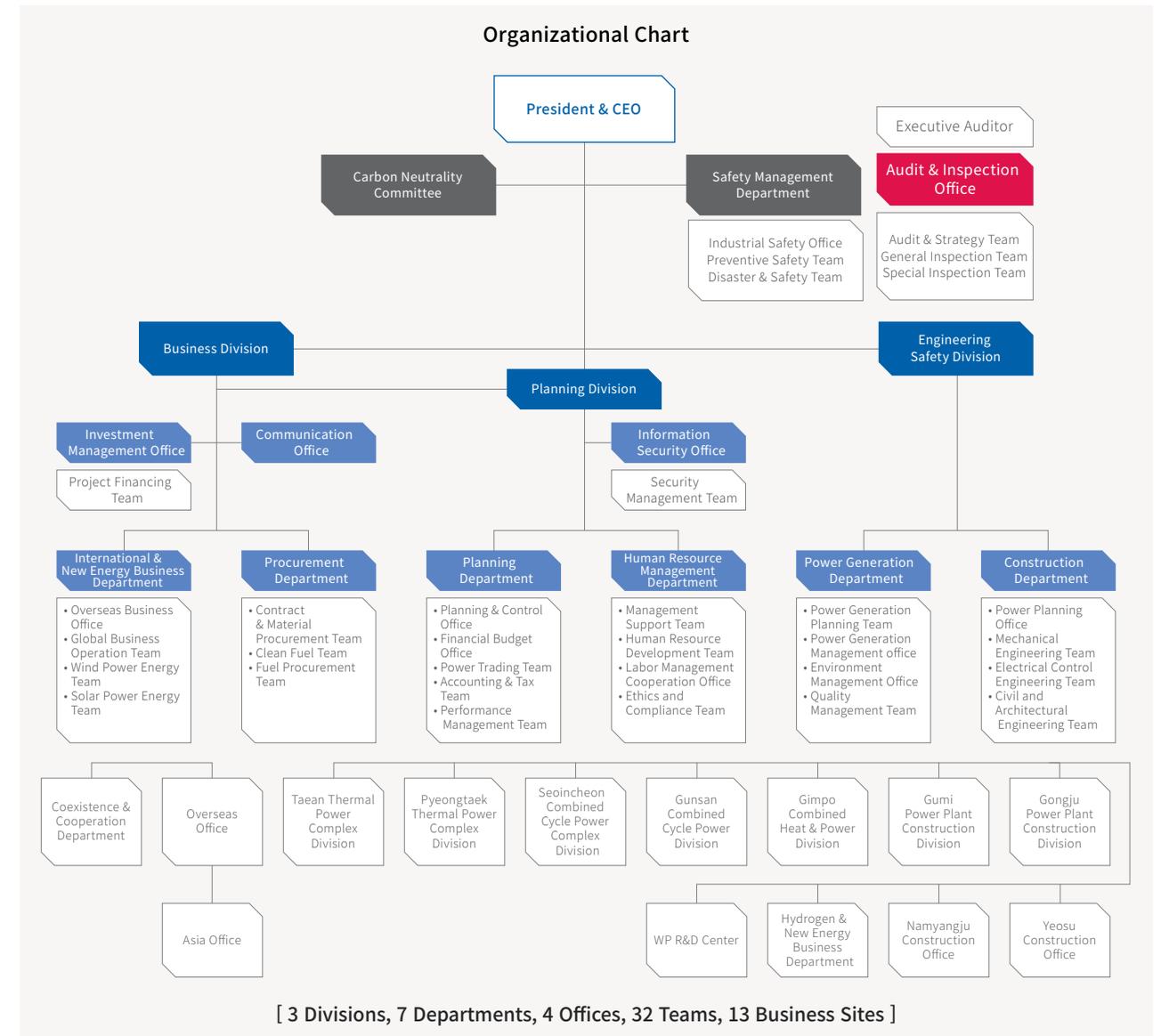
President & CEO, KOWEPO
Lee Jung Bok



Corporate Overview

KOWEPO is a state-owned power generation company that was spun off from Korea Electric Power Corporation (KEPCO) in April 2001 to enhance the competitiveness of the power industry by providing high-quality services to electricity consumers. As of the end of December 2023, KOWEPO operates five major power generation complexes, including the Taeon Power Generation Headquarters, along with facilities in Pyeongtaek, Seoincheon, Gunsan, and Gimpo, with a total installed capacity of 11,897 MW, accounting for 8.2% of the nation's power generation capacity. Committed to fulfilling its role as a public energy enterprise, KOWEPO is dedicated to realizing its vision of becoming a 'A Global Leader in Green Energy at the Forefront of a New Era.' The company continues to focus on R&D and the development of new businesses to lead the way in safe and clean energy generation.

General Information	
(As of December 2023)	
Institution Name	KOWEPO (Korea Western Power Co., Ltd.)
Established	April 2, 2001
Legal Structure	Corporation (Co., Ltd.)
Headquarters	285 Jungang-ro, Taeon-eup, Taeon-gun, Chungcheongnam-do, Republic of Korea
CEO	Lee Jung Bok (as of September 2024)
Organization & Workforce	3 Divisions, 7 Departments, 4 Offices, 32 Teams, 13 Business Sites / 2,726 employees
Legal Basis	Electric Power Industry Restructuring Promotion Act (December 23, 2000)
Installed Capacity	11,897MW
Key Business Areas	Development and generation of power resources, related energy businesses, comprehensive supervision and construction management
Shareholding Structure	100% owned by Korea Electric Power Corporation (KEPCO)
Financial Overview	<ul style="list-style-type: none"> • Assets: KRW 12.9497 trillion (consolidated) / KRW 12.7102 trillion (separate) • Equity: KRW 5.2416 trillion (consolidated) / KRW 5.0618 trillion (separate) • Revenue: KRW 6.9588 trillion (consolidated) / KRW 6.9152 trillion (separate)



[3 Divisions, 7 Departments, 4 Offices, 32 Teams, 13 Business Sites]

Overview

CEO Message

→ Corporate Overview

KOWEPO's Journey

Business Introduction

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Corporate Overview

Overview

CEO Message

→ **Corporate Overview**

KOWEPO's Journey

Business Introduction

Sustainable Future Story

ESG Management

ESG Factbook

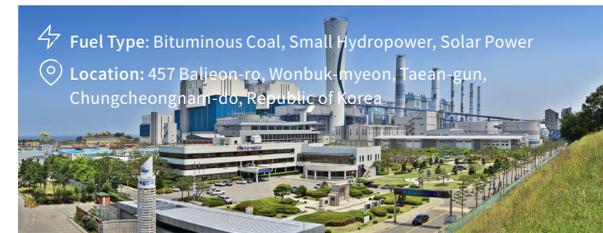
Appendix

Introduction to Power Generation Divisions

KOWEPO is expanding beyond its traditional thermal power portfolio to become a comprehensive energy company utilizing diverse power sources, including LNG, solar, wind, and fuel cells. Furthermore, with the commercial operation of the Gimpo Power Generation Division in 2023—joining the existing Taeon, Pyeongtaek, Seoincheon, and Gunsan Divisions—KOWEPO has launched its first-ever district energy business. In this way, while diversifying its business areas, KOWEPO is also focusing on expanding the construction of eco-friendly combined cycle power plants by commencing the construction of natural gas power plants in Gumi, Gongju, Yeosu, Namyangju, and Yongin.

Taeon Thermal Power Complex Division

As the model for Korea's standard thermal power plants, the Taeon Thermal Power Complex Division is equipped with flue gas desulfurization systems and continuous coal unloaders across all generating units to ensure the production of clean and high-quality electricity. It was also the first thermal power plant in Korea to obtain ISO 14001 (Environmental Management System) and ISO 9001 (Quality Management System) certifications. With a total capacity of 6,486.7 MW, this large-scale power complex primarily utilizes bituminous coal, along with small hydropower and solar power as supplementary energy sources.



Pyeongtaek Thermal Power Complex Division

As KOWEPO's first natural gas power plant, the Pyeongtaek Thermal Power Complex Division has been supplying high-quality energy reliably for over 40 years since it began operations in 1980. In 2014, the division successfully completed the construction of an LNG combined-cycle power plant, achieving a generational upgrade. It not only ensures a stable power supply to the Seoul metropolitan area but also plays a key role in maintaining grid frequency stability.



Seoincheon Combined Cycle Power Complex Division

Recognized as a 'Green Company,' the Seoincheon Combined Cycle Power Complex Division is an eco-friendly power plant that primarily uses natural gas, a fuel widely regarded for its cleanliness. With load-following technology, which enables rapid start-up and shutdown as well as flexible response to power demand, the division plays a crucial role in ensuring stable grid operation. Additionally, it serves as a key energy provider for the Seoul metropolitan area, supplying district heating to Cheongna, Gimpo, and Geomdan while also contributing to regional electricity needs.



Gunsan Combined Cycle Power Division

The Gunsan Combined Cycle Power Division is an eco-friendly power plant built in 2010 on the same site where the former Gunsan Thermal Power Plant was decommissioned in 2004. Currently, the division generates electricity using natural gas-based combined-cycle power, along with solar power, wind power, and fuel cells, leveraging state-of-the-art, environmentally friendly power generation technologies. Additionally, the site features an open-themed park, fostering harmonious coexistence with the local community.



Gimpo Combined Heat & Power Division

Commencing commercial operation in July 2023, the Gimpo Combined Heat & Power Division has successfully conducted demonstration tests and accumulated operational experience with Korea's domestically developed gas turbine. As a result, South Korea has become the fifth country in the world to possess the full suite of capabilities in design, manufacturing, operation, and servicing of large-scale power generation gas turbines. Moving forward, the Gimpo Division aims to drive technological leadership, foster future growth engines, and contribute to economic revitalization through its cutting-edge expertise.



KOWEPO's Journey

Overview

- CEO Message
- Corporate Overview
- **KOWEPO's Journey**
- Business Introduction

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

2001~2008

- **April 2001** Establishment of KOWEPO
- **September 2002** Completion of Taean Units 5 & 6
- **January 2004** Decommissioning of Gunsan Thermal Power Plant
- **August 2005** Completion of Taean Solar Power Facility
- **June 2006** Completion of Seoincheon Gas Turbine Performance Improvement Project
- **June 2007** Completion of DeNOx Facilities for Taean Units 1-6
- **August 2007** Completion of Taean Units 7 & 8
- **May 2008** Completion of Samnangjin Solar Power Plant



2010~2015

- **September 2010** Completion of Gunsan Combined Cycle Power Plant
- **November 2012** First Korean power company to achieve Carbon Trust Standard recertification Commencement of Taean Units 9 & 10 construction
- **October 2014** Completion of Seoincheon Fuel Cell Phase 1 (11.2 MW)
- **April 2015** Commencement of Taean Unit 9 trial operation
- **September 2015** Relocation of headquarters to Taean
- **October 2015** Successful ignition of IGCC Gasification Plant
- **November 2015** Completion of Hwasun Wind & ESS



2016~2019

- **April 2016** Completion of Seoincheon Fuel Cell Phase 2 (5 MW)
- **May 2016** Completion of Taean Floating Solar Power Facility
- **December 2016** Winner of Korea Idea Management Grand Prize for three consecutive years
- **August 2017** Completion of Seoincheon Solar Power Phase 1
- **November 2017** Awarded Presidential Prize for Shared Growth (Group Category)
- **December 2017** Completion of Taean Units 9 & 10
- **January 2018** Completion of Seoincheon Solar Power Phase 2
- **July 2018** Establishment of WP R&D Center
- **September 2018** Awarded Korea Employment-Friendly Excellence Management Grand Prize
- **April 2019** Winner of National Industry Grand Prize (Environmental Management, Manufacturing Quality) Completion of Seoincheon Fuel Cell Phase 3 (18 MW)
- **August 2019** Completion of Seoincheon 1 MW Solar-Linked ESS
- **December 2019** Completion of Seoincheon Auxiliary Boiler Fuel Conversion and Performance Improvement Project



2020~

- **April 2020** Pyeongtaek Thermal Power Plant converted to clean fuel
- **June 2020** Completion of Seoincheon Fuel Cell Phase 4 (22 MW)
- **March 2021** IGCC continuous operation world record (5,032 hours)
- **June 2021** Completion of Seoincheon Fuel Cell Phase 5 (20 MW)
- **December 2021** Completion of Hapcheon Dam Floating Solar Power Project
- **January 2022** Named Best Power Generation Brand at the 2022 Korea Brand Hall of Fame
- **June 2023** World's first 80 MW gas turbine hydrogen co-firing test with 60% hydrogen blend
- **June 2023** Achieved Grade A in the 2022 Public Institution Management Performance Evaluation
- **July 2023** Commencement of commercial operation at Gimpo Combined Heat & Power Plant



Business Introduction

Overview

- CEO Message
- Corporate Overview
- KOWEPO's Journey
- **Business Introduction**

Sustainable Future Story

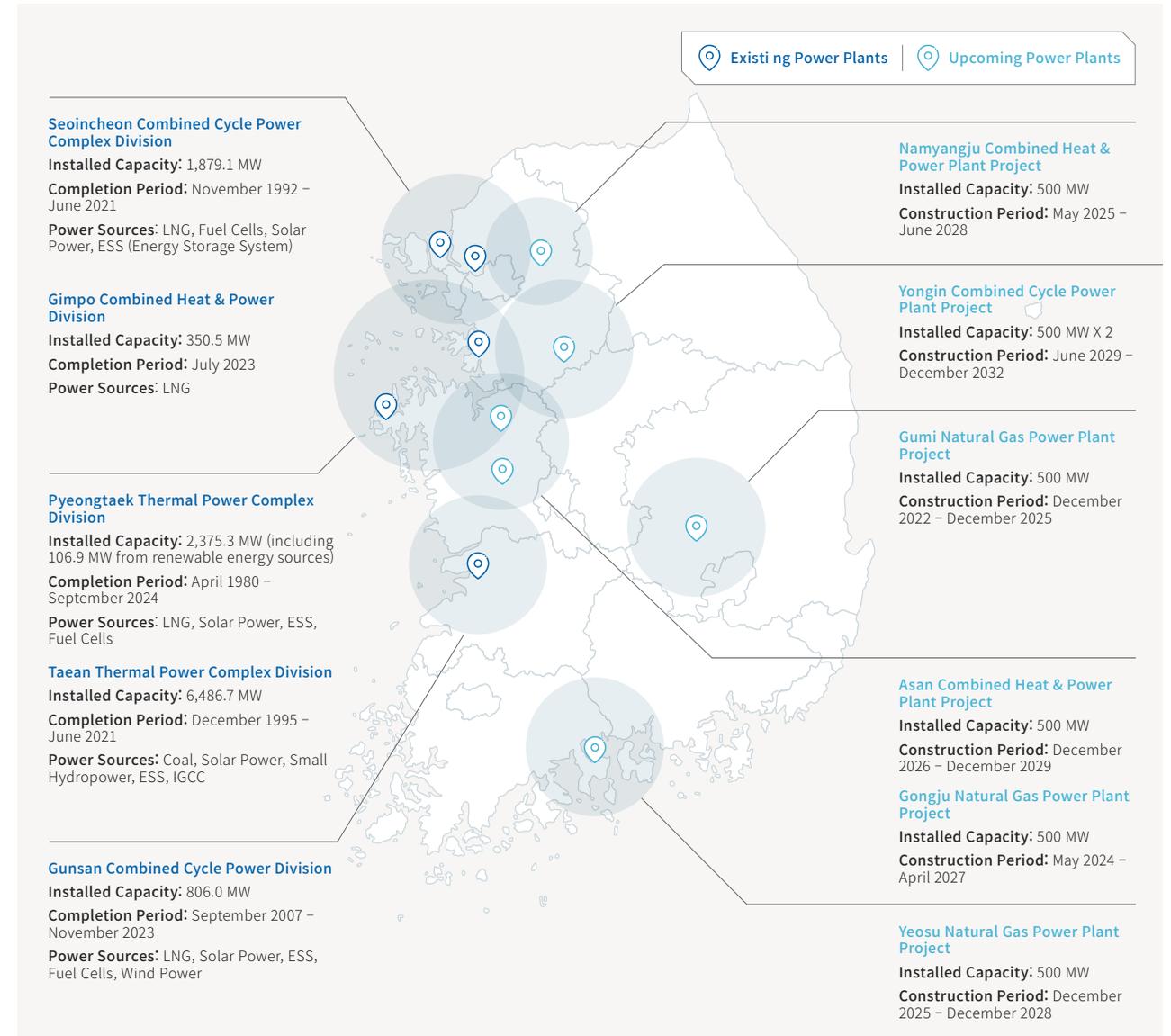
ESG Management

ESG Factbook

Appendix

Power Generation Operations

KOWEPO operates five power generation complexes in Taean, Pyeongtaek, Seoincheon, Gunsan, and Gimpo, ensuring a stable and efficient power supply through its power generation operations. To further enhance environmental sustainability, KOWEPO has developed a strategic plan to reduce emissions of fine dust precursors by 90% by 2035, compared to 2015 levels. This will be achieved through upgrading environmental facilities and integrating advanced technologies, reinforcing the company's commitment to building world-class eco-friendly power plants. Additionally, following the decommissioning decision for Taean Units 1-6, KOWEPO is actively advancing replacement combined-cycle power plant projects in Gumi, Gongju, Yeosu, Asan, and Yongin, positioning itself as a nationwide energy provider.



Business Introduction

Overview

- CEO Message
- Corporate Overview
- KOWEPO's Journey
- **Business Introduction**

Sustainable Future Story

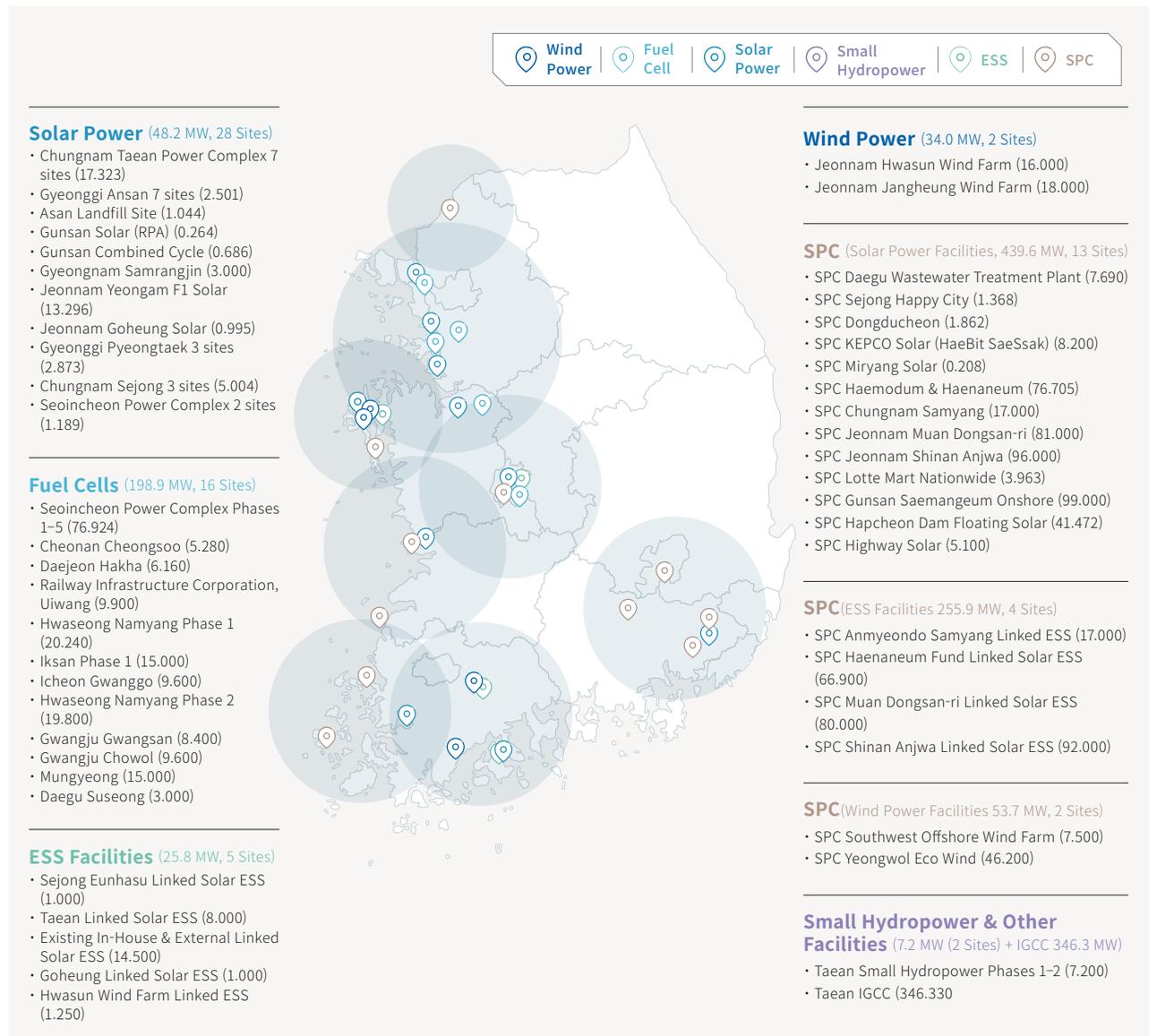
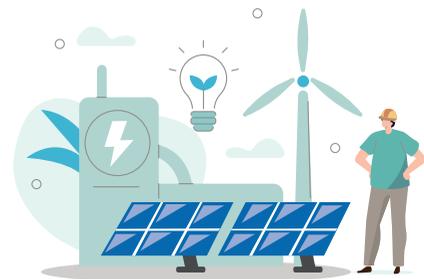
ESG Management

ESG Factbook

Appendix

Renewable Energy Business

Recognizing the importance and market potential of renewable energy, KOWEPO has been proactively investing in future energy technologies. In August 2005, KOWEPO became the first power generation company to install a 120 kW solar power facility in Taean, marking the company's official entry into the renewable energy sector. As of the end of 2023, KOWEPO operates a total of 17.3MW of its own solar power facilities and solar power SPC projects within the Taean Power Plant Headquarters, and a total of 487.8MW across all its sites. In wind power generation, KOWEPO operates the Hwasun Wind Farm (16MW) and the Jangheung Wind Farm (18MW), leveraging regional characteristics. To further expand into offshore wind power, KOWEPO will spearhead the Southwest Sea offshore wind power project and develop a large-scale offshore wind farm centered around the Taean region. Furthermore, the fuel cell project and ESS utilization project at the Seoincheon Power Plant Headquarters are also being successfully operated, and small-scale hydropower facilities utilizing cooling water from the Taean Thermal Power Plant are running stably. KOWEPO is committed to further advancing its renewable energy operation capabilities to contribute to carbon neutrality and enhance its corporate competitiveness.

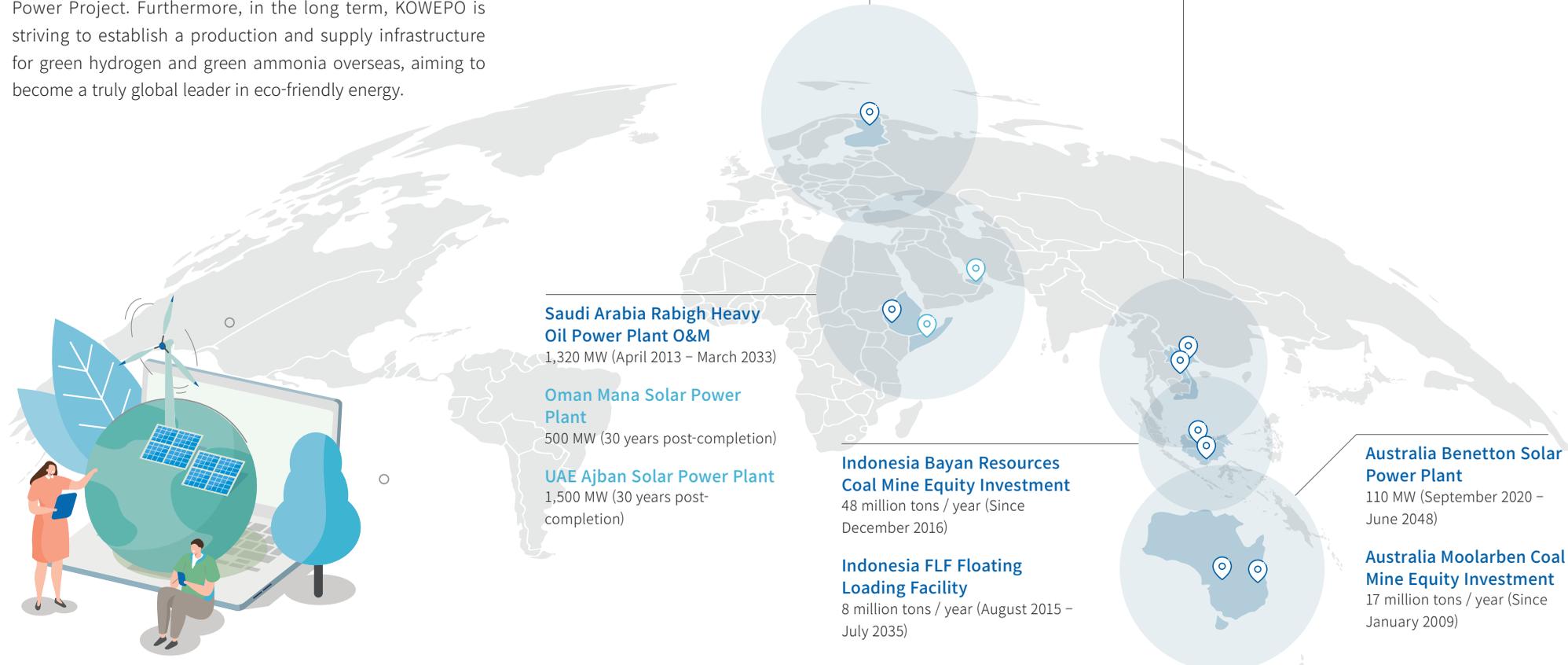


Business Introduction

Global Business Expansion

KOWEPO is also increasing its clean energy share overseas to achieve sustainable development. The company is pursuing the divestment of its stakes in coal-related projects, including the PT. FLF Floating Loading Facility in Indonesia. Recently, KOWEPO has been achieving tangible results towards its vision, including successive successful bids for large-scale solar power projects in the Middle East, such as the 500MW Oman Manah Solar Project and the 1,500MW UAE Ajban Solar Power Project. Furthermore, in the long term, KOWEPO is striving to establish a production and supply infrastructure for green hydrogen and green ammonia overseas, aiming to become a truly global leader in eco-friendly energy.

Operations | Development



Overview

- CEO Message
- Corporate Overview
- KOWEPO's Journey

→ Business Introduction

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Business Introduction

Overview

- CEO Message
- Corporate Overview
- KOWEPO's Journey

→ Business Introduction

Sustainable Future Story

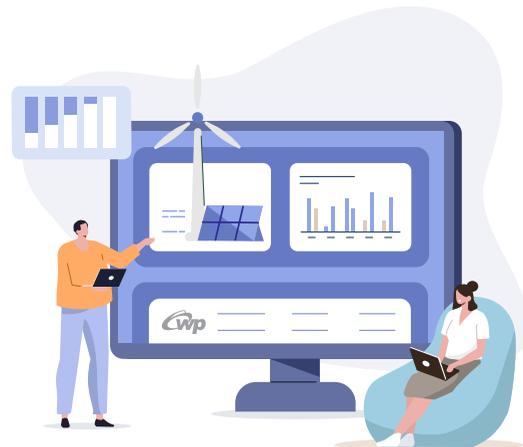
ESG Management

ESG Factbook

Appendix

R&D

The WP R&D Center, which leads the company's technological innovation, is actively engaged in research and commercialization to adapt to evolving domestic and international energy policies. The center focuses on boiler, turbine, electrical technology, control, performance, and combustion R&D. Through continuous research and technical support, the WP R&D Center is driving the company's transition into a future-oriented energy leader, fostering new growth engines and cutting-edge advancements in the energy sector.



Business Areas

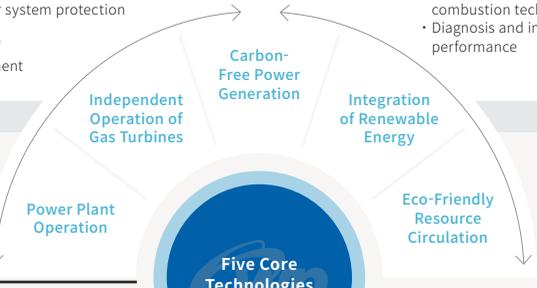
WP R&D Center

- | | |
|---|--|
| Boiler <ul style="list-style-type: none"> • Diagnosis and analysis of boiler and piping pressure components • Analysis of boiler thermal stress, thermal expansion, and thermal fluid dynamics • Diagnosis of welding design, welding construction status, and lifespan assessment • Boiler performance improvement and repowering execution | Control <ul style="list-style-type: none"> • Tuning and testing of power plant control devices • Development of new power generation technologies and acquisition/dissemination of advanced technologies • Fault diagnosis and analysis of automatic control equipment • Research on digital-based emerging technologies, including big data and IoT |
| Turbine <ul style="list-style-type: none"> • Technical support for equipment disassembly and maintenance, damage diagnosis • Analysis and correction of rotor vibration, shaft alignment technology • Diagnosis of gas turbine high-temperature components, combustor tuning • Lifespan diagnosis and evaluation of turbine equipment | Performance <ul style="list-style-type: none"> • Comprehensive thermal performance diagnosis and enhancement of power plants • Performance testing and cost evaluation after commissioning of power generation facilities • Performance diagnosis and investment analysis of overseas O&M power generation facilities |
| Electricity <ul style="list-style-type: none"> • Large-scale generator and power equipment diagnosis and maintenance • Diagnosis of power electronics equipment integrity • Design and diagnosis of power system protection systems • Fault diagnosis and analysis of high-voltage electrical equipment | Combustion <ul style="list-style-type: none"> • Evaluation and analysis of clean power generation combustion characteristics • Computational fluid dynamics (CFD) analysis of boilers and resolution of combustion issues • Development of carbon-free power generation combustion technology • Diagnosis and improvement of environmental facility performance |

Realization of Unique Value in the Power Generation Sector

- Technology for Enhancing Power Facility Reliability**
- Fault Monitoring Technology for Mechanical and Electrical Equipment
 - Performance Diagnostics and Efficiency Management Technology
 - Verification of New Welding Technologies and Procedure Development

- Independent Gas Turbine Operation Technology**
- Gas Turbine Combustion Tuning Technology
 - High-Temperature Component Management and Maintenance Technology
 - Gas Turbine Control and Monitoring Technology



- Carbon-Free Power Generation Technology**
- Hydrogen/Ammonia Co-Firing and Full-Firing Technology
 - Hydrogen Production and Utilization Technology

- Renewable Energy Integration Technology**
- ESS-Integrated Flexible Coal-Fired Power Load Following Technology
 - Fuel Cell Optimization, Operation, and Maintenance Technology

Sustainable Future Story

Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

#1

Enhancing Competitiveness with Top-Tier Quality and Technology



A photograph showing several wind turbines in the background against a sunset sky, with a large array of solar panels in the foreground.

#2

Driving Sustainability Through Diverse New Business Ventures



A lush green forest landscape with stylized white icons of wind turbines, solar panels, and hydrogen molecules (H₂) overlaid on the scene.

#3

Advancing Power Generation with Greater Safety and Sustainability



A stack of seven wooden blocks on a dark surface. The top block says 'NET ZERO'. Other blocks feature icons for a solar panel, CO₂, a factory, a globe, and a recycling symbol.

#4

Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility



A close-up photograph of two pairs of hands clasped together in a supportive gesture, set against a blurred green background.

- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

Sustainable Future Story

#1 Enhancing Competitiveness with Top-Tier Quality and Technology



Global electricity consumption is on the rise. In particular, the growing demand for semiconductors and data centers driven by AI development is continuously increasing power consumption, making stable and efficient power generation and supply more critical than ever. To address this, it is essential to both stabilize and enhance existing power generation systems while also investing in research and the adoption of new technologies. In response to these market dynamics, KOWEPO is committed to improving power generation quality and advancing technological capabilities. Initiatives such as the smart power plants, and the Digital Technology Sharing Center exemplify these efforts. Looking ahead, KOWEPO will not be satisfied with short-term achievements. Instead, the company will continuously refine its processes—spanning quality, technology, and fuel procurement—to solidify its position as a recognized leader in cutting-edge power generation technologies.

Our Activities

① Optimization of Power Plant Operations	14
② Economic and Stable Fuel Procurement	15
③ Development and Deployment of New Technologies	16

Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

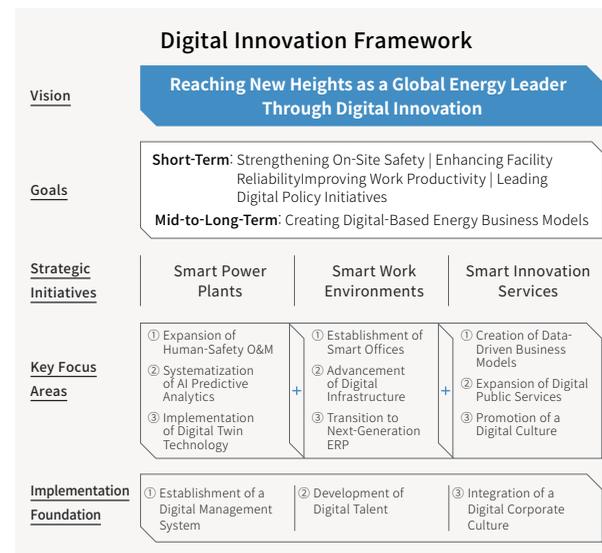
Appendix

Our Activities ①②③

Optimization of Power Plant Operations

Establishing a Sustainable Digital Innovation System

The power generation industry is undergoing structural transformation alongside rapid advancements in digital technology. KOWEPO is proactively responding to these changes by driving the digitalization of power generation technologies and establishing a digital innovation framework to create new growth engines. Under the vision of 'Reaching New Heights as a Global Energy Leader Through Digital Innovation,' the company is focusing on three key initiatives: smart power plants, smart work environments, and smart innovation services. Through these efforts, KOWEPO is shaping a safer and more reliable smart power plant ecosystem. Looking ahead, AI and big data-driven predictive safety monitoring and unmanned inspections are expected to become a reality. Additionally, by implementing digital twin technology and exploring new energy businesses, KOWEPO will continue its journey toward a safer and more efficient digital transformation in power generation operations.



Developing Core Digital Talent

For the full-scale digitalization of business operations, fostering digital talent with expertise in power generation technology integration is essential. In 2021, KOWEPO became the first public power generation company to launch a Digital Innovator training program. Innovators are classified based on their level of engagement in digital transformation activities, and KOWEPO has set a long-term goal of training 200 Digital Innovators by 2035. To strengthen digital capabilities and cultivate specialized talent, the company has structured its training program into short-term (2021–2023), mid-term (2024–2026), and long-term (2027 onward) phases. Additionally, outstanding employees in digital initiatives are supported through incentive programs, including awards and best practice competitions. In 2024, KOWEPO continued its efforts by hosting the 'Digital Innovator Competency Enhancement Workshop' to select new Digital Innovators. The company also organized the 'WP Digital Innovator Challenge,' where winners were recognized and awarded prizes. Through these ongoing talent development initiatives, KOWEPO aims to continuously advance its internal digital transformation, ensuring the sustainable and forward-thinking operation of its power generation business.

↓ WP Digital Innovator Challenge Held



Korea's First Successful Localization of Gas Turbine (233 MW) Rotor Precision Inspection Technology

A gas turbine generates electricity by compressing air, mixing it with fuel, and igniting it to produce high-temperature, high-pressure combustion gases. Often referred to as the 'heart of power generation,' gas turbines in Korea have traditionally relied on overseas technology, making maintenance heavily dependent on overseas technology. Gas turbine rotor precision inspection, also known as Comprehensive Rotor Inspection (CRI), involves disassembling the turbine to conduct a detailed assessment for degradation or damage, followed by reassembly to its original state. In 2022, KOWEPO successfully localized this process using domestic technology, marking a major milestone in Korea's gas turbine industry. This initiative has addressed the challenges of high costs and long maintenance periods associated with gas turbine upkeep. As a result, KOWEPO has significantly enhanced its gas turbine lifecycle management capabilities, contributing to the optimal operation of power generation facilities. Moving forward, KOWEPO will continue to lead advancements in power generation technology and create new business models.

Overview

Sustainable Future Story

- #1 **Enhancing Competitiveness with Top-Tier Quality and Technology**
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Our Activities ①②③

Economic and Stable Fuel Procurement

Enhancing the Economic Viability of Bituminous Coal Procurement

Amidst the impact of geopolitical instability, the ability to procure fuel economically has become a critical factor determining the success of power generation companies. KOWEPO has established a management framework to secure a more cost-effective and stable bituminous coal supply while minimizing procurement costs at each stage to reduce power generation costs. In the procurement phase, which incurs the highest costs, the company strengthens monitoring systems and procurement networks to promptly reflect market fluctuations. To respond flexibly to market volatility, KOWEPO has developed scenario-based purchasing strategies, adopting tailored approaches depending on the situation. This has resulted in a significant reduction in procurement costs. Additionally, the company has successfully lowered costs further by formulating and implementing strategies based on shipping market conditions, securing alternative purchases, and flexibly managing inventory in transportation, customs clearance, and unloading. Moving forward, KOWEPO will continue to closely monitor the bituminous coal procurement landscape and execute appropriate strategies to ensure cost-efficient fuel procurement.

Stabilizing Bituminous Coal Supply

As previously discussed, the core of KOWEPO's fuel procurement strategy lies in stabilizing the bituminous coal supply. Amidst global market instability caused by extreme weather events and surging demand, securing bituminous coal swiftly and reliably before prices spike has become more critical than ever. Given its direct impact on stable power generation, KOWEPO continues to make concerted efforts to ensure a steady supply of bituminous coal. As fuel supply uncertainties intensify, KOWEPO will remain committed to securing a stable power supply through a multifaceted approach.

LNG Procurement Strategy for Transition to Eco-Friendly Fuels

KOWEPO is focused on transitioning to eco-friendly fuels while strengthening its procurement competitiveness throughout this transformation process. Following an economic feasibility review, the company diversified its LNG procurement approach by introducing direct import and individual pricing systems in addition to the traditional average pricing system for gas tariffs. This diversification enables a more flexible response to market fluctuations. As part of this effort, KOWEPO established LNG direct import infrastructure at the Gimpo Combined Heat and Power Plant, commencing commercial operations in July 2023. Through stable supply management, the company achieved KRW 129.2 billion in fuel cost savings in the first year of operation. Furthermore, to procure LNG for new combined-cycle power plants replacing coal-fired facilities, KOWEPO became the first power generation company to adopt KOGAS's individual pricing system. Commercial operations are

scheduled for Gumi Combined Cycle Power Plant in 2025 and Gongju Combined Cycle Power Plant in 2027.

The procurement of LNG for upcoming combined-cycle power plants will leverage KOWEPO's experience with direct LNG imports in Gimpo and its strong negotiation capabilities. This approach will ensure the acquisition of competitive fuel sources while advancing the transition to eco-friendly energy.



↑ Gongju Integrated LNG Supply Agreement Signing Ceremony

↓ Panoramic View of the Gumi Natural Gas Power Plant Construction Site



Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Our Activities ①②③

Development and Deployment of New Technologies

First Adoption of Generative AI by a Power Generation Company

Generative artificial intelligence (AI), including models like ChatGPT, is reshaping industries worldwide. As the first power generation public enterprise to introduce generative AI technology for power plant operations, KOWEPO aims to swiftly adapt to rapidly changing market conditions while advancing power plant technology. This initiative involves establishing a generative AI system within KOWEPO's internal network, isolated from external communication systems. The project officially commenced with a kickoff meeting in June 2024. Once successfully implemented, generative AI is expected to reduce the workload of power plant facility managers, allowing them to focus on higher-value tasks. Additionally, it will significantly enhance the efficiency of new employees, enabling them to adapt and perform their duties more effectively. KOWEPO plans to gradually integrate generative AI into its operations in three phases, ultimately enhancing power plant efficiency over time.

↓ Generation AI Construction Project Kick-off Meeting for Power Technology Information



Operation of the Digital Technology Sharing Center

Enabling the private sector to utilize public data can significantly accelerate the research, development, and adoption of new power generation technologies. However, due to the security- and safety-sensitive nature of the power generation sector, sharing technical information and research outcomes remains a challenge. Recognizing the demand from private companies, KOWEPO became the first power generation company to establish a Digital Technology Sharing Center, providing access to publicly shareable data as a state-owned enterprise. KOWEPO's Digital Technology Sharing Center is located at the Global R&D Center in Pangyo, Seongnam, Gyeonggi Province, enhancing accessibility for stakeholders.

At KOWEPO's Digital Technology Sharing Center, stakeholders can access real-time operational big data from KOWEPO's power plants at a glance. Additionally, the center provides coding tools that allow on-site users to conduct simple

experiments with sample data. When private companies request specific data, technology-sharing experts at the center recommend relevant datasets. After an internal approval process, sensitive information is removed before the data is shared. By opening access to a wide range of power generation data, KOWEPO is expected to stimulate industry demand and further accelerate research and development in the private sector.



↓ KOWEPO Digital Technology Sharing Center



Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Our Activities ①②③

Development and Deployment of New Technologies

Development and Technology Transfer of Coal Ash Utilization Technologies

KOWEPO, the Korea Institute of Ocean Science and Technology (KIOST), and Daeryuk Energy Technology have signed a memorandum of understanding (MOU) for the commercialization of next-generation K-marine structures utilizing coal ash. This initiative aims to develop marine structures using coal ash and transfer the related technologies to domestic companies. As part of this agreement, the design and manufacturing technologies for next-generation K-marine structures—jointly developed by KOWEPO and KIOST—will be transferred to Daeryuk Energy Technology. These technologies have already been filed and registered under four domestic and international patents. By replacing 20% of aggregate materials with coal ash, the project enables the production of marine structures such as wave-dissipating blocks, artificial reefs, and artificial protective stones.

In particular, the wave-dissipating blocks are gaining attention as a domestically produced alternative to tetrapods, a product for which localization is urgently needed. The newly developed wave-dissipating blocks feature a safer design than conventional tetrapods and contribute to resource circulation by utilizing coal ash from KOWEPO’s ash disposal sites. Additionally, the artificial protective stones have been engineered with an ultra-high strength of 100 MPa, enhancing the durability of coastal breakwaters. Meanwhile, the organically coated artificial reefs are designed to promote seaweed attachment and growth, further supporting marine ecosystem restoration. KOWEPO is committed to supporting the commercialization of this technology by Daeryuk Energy Technology, a small and medium-sized enterprise (SME), fostering both carbon neutrality and shared growth.

↓ Next-Generation K-Marine Structures Utilizing Coal Ash, Jointly Developed by KOWEPO and the Korea Institute of Ocean Science and Technology (KIOST)



Next Steps

Advancing Digital Transformation to Enhance Stability and Sustainability in Power Generation



At the same time, KOWEPO will continue to advance its digital transformation, enhancing efficiency while ensuring stable power generation. The company will follow a digital innovation roadmap through 2030, driving the continuous development of new technologies and businesses. Furthermore, based on its mid- to long-term fuel roadmap, KOWEPO will gradually strengthen fuel procurement strategies and environmental sustainability to align with future energy needs.



Sustainable Future Story

#2 Driving Sustainability Through Diverse New Business Ventures

Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix



Since the signing of the Paris Agreement on Climate Change in December 2015, countries worldwide have continued their efforts to reduce carbon emissions. The European Union has announced its goal to cut greenhouse gas emissions by 90% compared to 1990 levels by 2040 as part of its plan to achieve carbon neutrality by 2050. Similarly, the United States has set ambitious carbon reduction targets and declared its transition toward a carbon-neutral society. These policy shifts across nations are significantly impacting industries, particularly driving a major transformation in the global energy market from coal to renewable energy.

To strengthen competitiveness as a power generation company, expanding into renewable and new renewable energy businesses has become imperative. Recognizing this shift early on, KOWEPO has been striving to position itself as a leader in renewable energy sectors, including hydrogen, offshore wind, and solar power. Among these efforts, the company is accelerating its push to develop technology capable of generating power exclusively with 100% hydrogen. KOWEPO's technological advancements and competitive edge have been recognized internationally, leading to tangible achievements such as securing new renewable energy projects in various countries.

Our Activities



① Development of Renewable Energy Projects	19
② Focused Expansion of Overseas Projects	21

Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Our Activities ①②

Development of Renewable Energy Projects

Securing Green Hydrogen Production Technology

KOWEPO is actively expanding its renewable energy projects, with the establishment of a hydrogen ecosystem serving as the ultimate direction for its renewable energy initiatives. To this end, the company launched research efforts in January 2021, focusing on the development of core water electrolysis technologies, performance enhancement, and increasing cell surface area. Water electrolysis is a technology that produces hydrogen by splitting water using electricity. Among various hydrogen types, green hydrogen—recognized as a zero-carbon fuel—is produced when renewable energy, rather than fossil fuels, is used as the power source in the electrolysis process. However, renewable energy sources such as solar and wind power are subject to fluctuations in output due to weather conditions. As a result, first-generation electrolysis technology has relied on the presence of an Energy Storage System (ESS) to stabilize production. The new water electrolysis technology jointly developed by KOWEPO, the Korea Institute of Energy Research, and Techcross breaks away from conventional methods by directly integrating with renewable energy sources. This approach enables stable hydrogen production without the need for an ESS. This technology can produce approximately

↓ Briefing on Successful Demonstration of Next-Gen Alkaline Water Electrolysis Facility



1 kg of green hydrogen per hour while also enhancing system stability, making it highly promising for large-scale commercialization and economic impact. Building on this successfully demonstrated technology, KOWEPO remains committed to advancing its carbon-free energy strategy and driving the realization of a sustainable energy future.

Successful Demonstration of 60% Hydrogen Co-Firing Ratio

Hydrogen is considered a key driver of the energy transition, yet current technology still faces challenges in achieving power generation using hydrogen alone. As a practical alternative, hydrogen co-firing technology, which involves combusting a mixture of hydrogen and liquefied natural gas (LNG), is emerging as a viable solution. Hydrogen co-firing reduces carbon dioxide emissions compared to conventional LNG combustion while enabling efficient and cost-effective power generation. Since 2021, KOWEPO has been collaborating with Hanwha Impact to develop hydrogen co-firing technology, making it the first in Korea to achieve this. In June 2023, the company reached a

↓ Commemorating the Hydrogen Turbine Power Generation Demonstration



milestone by successfully demonstrating a 60% hydrogen co-firing ratio using a mid-to-large gas turbine. KOWEPO's 60% hydrogen co-firing achievement represents the highest level of real-world validation conducted at an operational combined heat and power plant, surpassing previous records of 30% in the Netherlands and 40% in the United States, which were achieved in laboratory settings. Achieving an 80% hydrogen co-firing ratio in the future is expected to reduce greenhouse gas emissions from power generation to less than half of current levels. Moving forward, KOWEPO will focus its efforts on advancing technology to ultimately achieve a 100% hydrogen co-firing ratio.



↑ The Korean-model gas turbine installed at KOWEPO's Gimpo Power Plant Construction Division

Our Activities ①②

Development of Renewable Energy Projects

Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 **Driving Sustainability Through Diverse New Business Ventures**
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Advancing Ammonia Co-Firing Technology

In addition to hydrogen co-firing, KOWEPO is actively developing ammonia co-firing technology. Since hydrogen poses challenges for large-scale storage and long-distance transportation, it is often imported in the form of ammonia and later converted back into hydrogen. However, this conversion process results in energy losses, making direct use of ammonia as a fuel a viable alternative. Recognizing this potential, KOWEPO, along with four other domestic power generation companies, launched research on ammonia co-firing technology in 2023. KOWEPO plans to apply this technology to the Taean coal-fired power plant boilers, with a target of achieving over 20% ammonia co-firing by 2029, thereby reducing carbon dioxide emissions by more than 20%.



KWPO's Development of Ammonia Co-firing



① Ammonia Wharf
Phase 1 Coal Unloading Wharf → Conversion to Liquefied Ammonia Wharf



② Ammonia Storage Infrastructure
Construction of two ammonia storage tanks and auxiliary facilities



③ Taean Units 9 and 10 Ammonia Co-Firing Power Generation
Construction of Taean Units 9 and 10 Ammonia Co-Firing (20%) Power Plant

Advancing Industrial Complex Energy Efficiency Projects

The 'Gunsan Smart Green Industrial Complex Energy Self-Sufficiency Infrastructure Development and Operation Project' is an energy efficiency initiative launched in 2023, aiming to establish infrastructure for energy self-sufficiency within the Gunsan National Industrial Complex. KOWEPO has formed a consortium with KT, Seoul National University's Industry-Academic Cooperation Foundation, and other partners. By 2026, the consortium will invest KRW 31 billion to install self-sufficient energy facilities, including small wind power (200 kW) and solar power (11.69 MW). Additionally, the project involves energy diagnostics, customized energy solutions, and the establishment of a carbon-neutral integrated platform. Furthermore, KOWEPO's consortium plans to sign a Direct Power Purchase Agreement (PPA) with the Korea Industrial Complex Corporation for solar power generation. This initiative includes building energy self-sufficiency infrastructure and developing a Mega Station, which will serve as both a power hub and a cultural rest area for workers and local community members. By successfully implementing the Gunsan Industrial Complex Energy Efficiency Project, KOWEPO aims to set a benchmark for fulfilling corporate social responsibility as a public enterprise while contributing to carbon neutrality.

↓ Groundbreaking Ceremony for Smart Green Industrial Complex Energy Self-Sufficient Infrastructure Construction Agreement in Gunsan



Establishing a Foundation for the Taean Offshore Wind Power Project

Offshore wind power, which harnesses wind energy from installations in deep waters or coastal areas, has emerged as a promising solution to overcome the limitations of onshore wind power. Since 2018, KOWEPO has been collaborating with Taean County and private power companies to develop offshore wind projects in the Taean region, beginning with the Taean Mallipo Offshore Wind Farm and expanding to the Taean West Sea Offshore Wind Project, totaling approximately 1.96 GW. KOWEPO is responsible for key aspects of project development, construction, and operational management. With the aging coal-fired power plants in the Taean region, alternative power generation solutions are urgently needed, and offshore wind power is expected to play a significant role in this transition. For the Taean Mallipo Offshore Wind Farm, the Environmental Impact Assessment was approved in August 2023, followed by participation in the 2024 fixed-price wind power bidding process. As offshore wind development in Korea has progressed at a slower pace than onshore wind, KOWEPO aims to drive the expansion of the wind power market by achieving meaningful advancements in offshore wind energy.

#1 Enhancing Competitiveness with Top-Tier Quality and Technology

→ #2 Driving Sustainability Through Diverse New Business Ventures

#3 Advancing Power Generation with Greater Safety and Sustainability

#4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

Our Activities ①②

Focused Expansion of Overseas Projects

Award and Contract Signing for the Oman Manah 1 Solar Power Project

Leveraging its advanced technological expertise, KOWEPO has actively expanded into international renewable energy markets, including Europe, achieving significant milestones. This momentum has continued, culminating in the official signing of the contract for the Manah Solar Power Project, a large-scale renewable energy initiative in Oman, in May 2023. This project involves the construction of a 500 MW solar power plant in the Manah region of Oman, an area 2.6 times the size of Yeouido, with an estimated budget of KRW 600 billion. Beyond its scale, this achievement is particularly significant as it marks the first time a Korean company has secured a large-scale renewable energy project in Oman. The Manah 1 Solar Power Project, which will serve as a cornerstone for Oman's energy transition, commenced construction in November 2023 and is scheduled for completion in March 2025. Meanwhile, this project was recognized at the 'IJ Global Awards 2023,' hosted by Euromoney, a leading international financial publication. Held in Dubai, UAE, in April 2024, the event honored the project with the 'Renewable

Energy Project of the Year' award for the Middle East and North Africa (MENA) region. The 'Project of the Year' award is granted through a rigorous evaluation process, selecting the most outstanding project finance (PF) cases worldwide. With these major achievements, KOWEPO is solidifying its position as a global leader in the energy sector.

Securing the UAE Ajban Solar Power Project

KOWEPO's expansion into overseas solar power projects has continued into 2024. The company successfully signed the financial close agreement for the Ajban Solar Power Project in the United Arab Emirates (UAE), marking another milestone in its global renewable energy ventures. The Ajban Solar Power Project is a mega-scale renewable energy initiative, with an investment exceeding KRW 1 trillion, involving the construction of a solar power plant on a vast site located 70 km east of Abu Dhabi. Construction began in June 2024, with completion scheduled for the second half of 2026. The project is expected to generate over KRW 3 trillion in electricity sales revenue, and KOWEPO will also be responsible for the

operation and maintenance (O&M) of the solar power plant after its completion.

Following the successful Manah Solar Power Project in Oman, securing the Ajban project—the second-largest solar power project in the Middle East—further strengthens KOWEPO's global competitiveness. Moving forward, the company plans to expand its presence in the Middle East through additional renewable energy projects while solidifying its position as a leading global eco-friendly energy company.

Signing of MOU for Morocco Renewable Energy and Green Hydrogen Project

KOWEPO's renewable energy initiatives are now expanding into the African continent. In 2024, KOWEPO signed a Memorandum of Understanding (MOU) with EDF-R (Renewable), the renewable energy subsidiary of Electricité de France (EDF), for the Morocco Renewable Energy and Green Hydrogen Project. Prior to this, the two companies jointly submitted a Letter of Intent (LOI) to the Moroccan Agency for Sustainable Energy (MASEN), the organization overseeing the Morocco Green Hydrogen Project, expressing their intent to participate. Morocco is well-suited for solar power generation, with an average daily solar radiation duration of approximately 10 hours, surpassing the Middle East's average of 8 hours. Additionally, the coastal regions experience consistently strong winds, making them highly favorable for wind power generation. Moreover, green hydrogen is produced through water electrolysis using renewable energy instead of fossil fuels, and Morocco's abundant renewable energy resources provide optimal conditions for green hydrogen production. Its strategic location between Africa and Europe also positions Morocco as a key hub for green hydrogen supply to both continents.

Moving forward, KOWEPO aims to contribute to global carbon neutrality by collaborating with more countries in the future, including the Morocco project.

↓ Overview of Solar Power Plant



Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Our Activities ①②

Focused Expansion of Overseas Projects

Agreement on EV Charging Infrastructure Development with the Laotian Government

KOWEPO continues to strengthen its national-level cooperation with Laos. As a country actively exporting electricity to neighboring nations such as Thailand and Vietnam, Laos has significant potential for renewable energy development. KOWEPO is engaged in various renewable energy projects in Laos, including hydropower, solar, and wind power generation. Since 2020, KOWEPO, in collaboration with Doosan Enerbility, has been developing the 410 MW Xe Namnoy Hydropower Plant, which is now fully operational. Throughout this process, KOWEPO has actively contributed to job creation within Laos and technical workforce development, reinforcing its commitment to sustainable growth and community engagement. The Laotian government has expressed high satisfaction with KOWEPO's operation of the Xe Namnoy

Hydropower Plant and has pledged full support for both its continued operation and future project development. Currently, Laos is showing strong interest in electric vehicle (EV) projects utilizing renewable energy. KOWEPO and the Laotian government plan to strengthen cooperation for the development of EV charging infrastructure in Laos. Looking ahead, KOWEPO remains dedicated to strengthening its strategic partnership with the Laotian government, paving the way for shared growth and long-term sustainability.



↓ Discussion on Energy Cooperation with the Minister of Energy of Laos



Next Steps

Building a Hydrogen Ecosystem and Expanding Global Business Opportunities



KOWEPO is actively advancing its technological capabilities to establish a future hydrogen ecosystem capable of generating electricity solely from hydrogen. Additionally, the company plans to invest in and conduct research on solar and wind power generation to further strengthen renewable energy infrastructure beyond hydrogen. These efforts are expected to enhance global competitiveness, serving as a foundation for expanding international project acquisitions and operations with even greater momentum.



Sustainable Future Story

#3 Advancing Power Generation with Greater Safety and Sustainability

Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 **Advancing Power Generation with Greater Safety and Sustainability**
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix



Countries around the world are grappling with extreme weather events, such as heatwaves and cold spells, as well as their consequences, including rising sea levels and sudden natural disasters. Climate change is no longer a localized issue but a global crisis affecting all of humanity, prompting multi-faceted efforts to address its challenges. In particular, businesses, whose environmental impact is significantly greater than that of individuals, are making concerted efforts across industries to contribute to climate crisis solutions. Moreover, larger corporations have a greater impact not only on the natural environment of the regions where they operate but also on local communities. As a result, creating a safe and sustainable workplace for both employees and residents has become an essential responsibility. To address this, KOWEPO has set clear targets to achieve carbon neutrality by 2047 and reduce environmental pollutant emissions. At the same time, the company is dedicating its efforts to eliminating workplace accidents and preventing major operational failures. Through these initiatives, KOWEPO is committed to protecting both the environment and its people, ensuring clean, safe, and responsible business operations.

Our Activities [↗](#)

① Greenhouse Gas (GHG) Reduction	24
② Creating an Accident-Free Workplace	26
③ Preventing Potential Failures in Advance	27

Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 **Advancing Power Generation with Greater Safety and Sustainability**
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

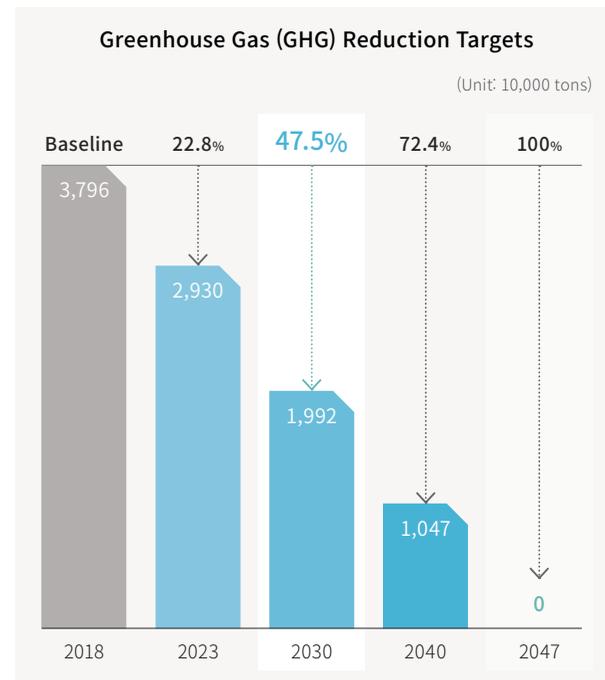
Appendix

Our Activities ①②③

Greenhouse Gas (GHG) Reduction

Reestablishing the Greenhouse Gas Reduction Roadmap

In 2022, KOWEPO introduced its first-ever greenhouse gas reduction vision through its Greenhouse Gas Reduction Roadmap. The initial targets aimed to reduce emissions by 44.4% by 2030 and achieve carbon neutrality by 2050. However, following the announcement of the 10th Basic Plan for Electricity Supply and Demand and the Carbon Neutrality and Green Growth Master Plan, KOWEPO decided to redefine its reduction roadmap to fulfill its social responsibility as a public power generation company. With a more ambitious and effective approach to carbon neutrality, KOWEPO has set a new target to cut greenhouse gas emissions by 47.5% by 2030 and achieve



Net-Zero by 2047, marking a bold commitment to sustainability. To achieve these targets, KOWEPO has established specific reduction strategies, including fuel conversion from coal to LNG, commercialization of hydrogen and ammonia co-firing, expansion of bioenergy and hydrogen power generation, and implementation of Carbon Capture, Utilization, and Storage (CCUS) technologies. Alongside executing these initiatives, KOWEPO plans to systematically monitor and assess progress through the active operation of the Carbon Neutrality Task Force, ensuring the effective implementation of its roadmap.

Developing CCUS Technology for Greenhouse Gas Reduction

CCUS is recognized as a key technology for achieving carbon neutrality in fossil fuel-based power plants and industrial facilities. By applying this technology, CO₂ emissions from exhaust gases can be captured at high concentrations, compressed, and transported for either underground storage or conversion into useful materials for environmental applications. To actively implement its carbon neutrality roadmap, KOWEPO collaborated with the Korea Institute of Energy Research from 2021 to 2023 to establish a foundation for the large-scale demonstration and commercialization of CCUS technology. To achieve this, KOWEPO utilized the 0.5 MW CO₂ wet capture demonstration plant at the Taean Power Complex Division to evaluate the performance of domestic wet capture technology and identify large-scale CO₂ capture sources. Based on these findings, the company completed the detailed design of a 150 MW CO₂ capture facility for Taean Units 9 and 10. Additionally, KOWEPO has successfully developed chemical looping combustion (CLC) technology, which enables high-purity CO₂ capture through LNG and oxy-fuel combustion. With these advancements, KOWEPO has secured cutting-edge carbon neutrality technologies, taking a significant step toward establishing technological leadership in the field.

Taean 0.5 MW CO₂ Wet Capture Facility

The diagram illustrates the process where exhaust gas emissions from Taean Units 3-5 are directed to a Capture Facility. This facility captures CO₂ at a rate of 10 tons per day. The process also involves the use of utilities such as steam, SW, SA, and IA.

*** MAB (Modulated Amine Blend):**
MAB is a polyamine-based absorbent developed for the first time in the world by Sogang University and the Korea Institute of Energy Research.

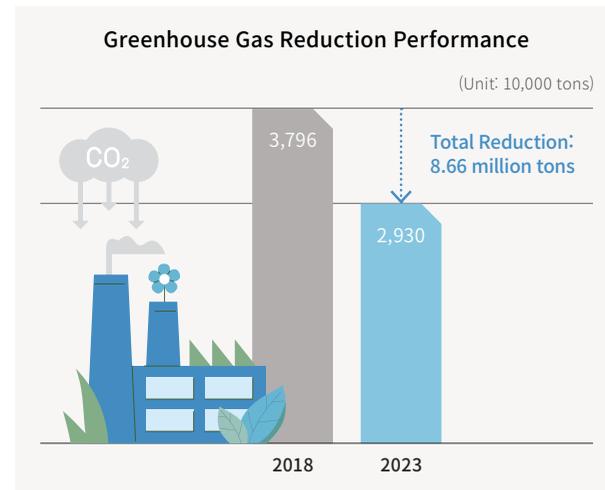
The bottom illustration shows a balance scale. On the left pan, there are icons for a wind turbine, solar panels, and a tree, representing clean energy. On the right pan, there are icons for a factory and a CO₂ cloud, representing fossil fuels and emissions. A person is shown tipping the scale towards the clean energy side, symbolizing the shift to sustainable power generation.

Our Activities ①②③

Greenhouse Gas (GHG) Reduction

Strengthening Greenhouse Gas Reduction Strategies

KOWEPO is committed not only to long-term greenhouse gas reduction but also to identifying and implementing practical emission reduction strategies to achieve tangible results. Through the seasonal energy management program, which limits or suspends operations between January and March, when fine dust pollution is most severe, KOWEPO has reduced 1.52 million tons of greenhouse gas emissions. Additionally, by enhancing calorific efficiency, coal consumption was reduced by 2.3%, leading to a further 550,000 ton reduction in emissions. As a result, total emissions have been cut by 22.8% compared to 2018. Furthermore, KOWEPO has upgraded its biomass co-firing facilities to increase the use of organic solid fuel from recycled waste by 30%, resulting in an annual reduction of 28,000 tons of greenhouse gas emissions. With the full-scale deployment of hydrogen and ammonia co-firing technology, even greater reductions in greenhouse gas emissions are expected in the future.



Construction of New Combined Cycle Power Plants

To replace coal, a major source of greenhouse gas emissions, KOWEPO is focusing on Liquefied Natural Gas (LNG) as an alternative fuel. The company has already started or planned construction of LNG power plants in Gumi, Gongju, Yeosu, and Asan. The Gumi LNG Power Plant, the first coal-to-gas conversion project under the government's coal phase-out policy, has already broken ground. The Gongju, Yeosu, and Asan plants are scheduled to begin construction in May 2024, December 2025, and December 2026, respectively. Additionally, KOWEPO will operate these combined cycle power plants as key energy providers for the national high-tech strategic industrial complexes currently under development in locations such as Yongin, Gyeonggi Province. With the construction of these new replacement combined cycle power plants, greenhouse gas emissions are projected to decrease by 40.8% by 2030. KOWEPO is committed to using combined cycle power generation as a transitional step toward achieving carbon neutrality.

↓ Rendering of Gumi Natural Gas Power Plant



Top-Tier Achievement in the Ministry of Environment's Green Procurement Evaluation

KOWEPO integrates environmental considerations into its procurement processes for operational necessities. In particular, the company continues to expand the proportion of green product purchases. Green products refer to items certified for low carbon, environmental labeling, or excellent recycling by minimizing energy and resource input as well as greenhouse gas and pollutant emissions during production. KOWEPO has consistently made efforts to improve its green procurement performance and increase its purchasing volume through company-wide initiatives. As a result, the company achieved a perfect score in the 2023 Public Green Procurement Implementation Evaluation, jointly conducted by the Ministry of Environment and the Korea Environmental Industry & Technology Institute, earning the Minister of Environment Award and official recognition. This evaluation assessed 1,160 public institutions across eight categories, and KOWEPO was ranked as the top-performing organization among state-owned enterprises, making the achievement particularly significant. Going forward, KOWEPO will further promote green product procurement, contributing to carbon neutrality and advancing environmentally friendly management practices.

Evaluation Details			Total Score	Ranking
Procurement Performance	Procurement Improvement	Diligence		
40 points	30 points	30 points	100 points	1st Place (among 32 state-owned enterprises)

Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 **Advancing Power Generation with Greater Safety and Sustainability**
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 **Advancing Power Generation with Greater Safety and Sustainability**
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Our Activities ①②③

Creating an Accident-Free Workplace

Implementation of the WP-Safety Rating System

The WP-Safety Rating System was introduced to assess and improve safety vulnerabilities among partner companies. This system comprehensively evaluates occupational safety and health management frameworks, on-site operational effectiveness, safety performance, and overall safety awareness levels. To recognize outstanding safety efforts, high-performing partner companies are awarded, while low-performing companies receive tailored consulting services aimed at enhancing safety awareness and fostering a strong safety culture. This approach ensures a fair and responsible partnership framework. Additionally, partner company workshops are held to facilitate the sharing of best practices, gathering of partner company feedback, and joint discussions on practical improvement measures, creating an open platform for continuous safety enhancement. The WP-Safety Rating System was recognized for its excellence and effectiveness by being awarded the Grand Prize in the Safety Management System category at the 2024 National Service Awards. Moving forward, KOWEPO remains committed to continuously exploring innovative approaches to human-

↓ WP-Safety Grade System Information Exchange Workshop



organization-, and technology-centered safety management, ensuring sustainable and effective safety practices.

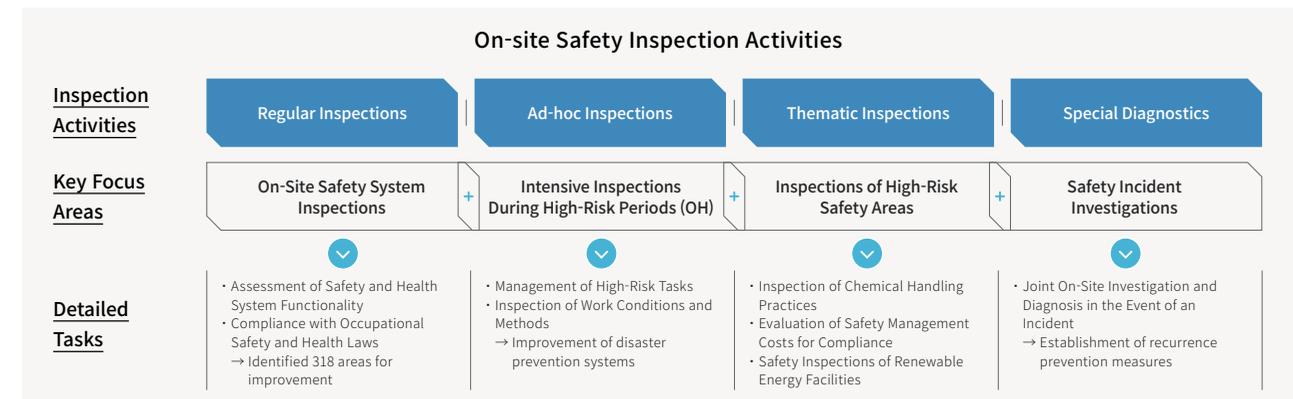
Establishing a Joint Labor-Management On-Site Safety Management System

A safe workplace is not the result of individual efforts but a collective commitment from all stakeholders. KOWEPO has implemented a joint labor-management on-site safety management system to create a work environment where all employees can perform their duties with confidence and security. To enhance hazard identification and accident prevention, the company has strengthened its on-site safety inspection activities, including regular inspections, ad-hoc checks, thematic inspections, and special diagnostics. In 2023, a regular safety system inspection was conducted in accordance with the Occupational Safety and Health Act, identifying 318 areas for improvement, all of which have been addressed through corrective measures. Regular inspections conducted during high-risk periods help prevent accidents and drive institutional improvements. Additionally, thematic inspections are periodically carried out in high-risk areas such as chemical substances and renewable energy facilities.

In the event of a safety incident, a special diagnostic process is implemented to accurately assess the accident and establish preventive measures to mitigate recurrence.

Furthermore, as the transformation of an organization's safety culture begins with its members, KOWEPO is actively enhancing employees' risk assessment capabilities and fostering in-house safety experts. To achieve this, KOWEPO provides an annual in-house expert training program consisting of basic and advanced courses.

Certification is granted in progressive stages (Beginner → Intermediate → Advanced) based on course completion and qualification assessment results. Subsequently, certified employees have been actively engaged in various workplace safety assessment activities, including regular internal risk assessment inspections at business sites and in-house training programs, enhancing practical effectiveness. To encourage participation from in-house experts and sustain motivation, performance evaluations are conducted, and a 'Safety Mileage' system is implemented to reward achievements. The number of in-house experts has steadily increased from 48 in 2022 to 79 in 2023, and 175 in 2024. Moving forward, KOWEPO will continue to strengthen its internal safety training initiatives and expert development programs.



Sustainable Future Story

#1 Enhancing Competitiveness with Top-Tier Quality and Technology

#2 Driving Sustainability Through Diverse New Business Ventures

→ #3 Advancing Power Generation with Greater Safety and Sustainability

#4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Our Activities ①②③

Creating an Accident-Free Workplace

On-Site CEO Safety Consulting

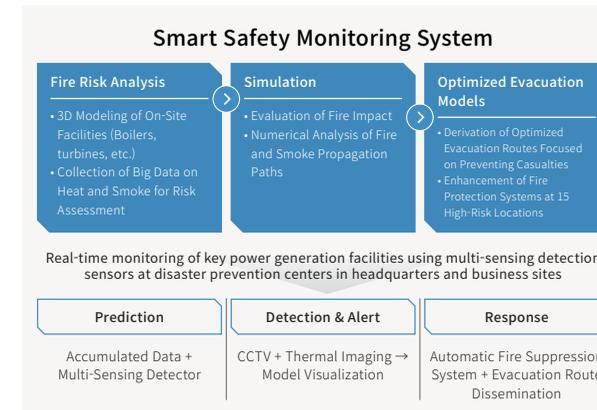
Launched in 2022, KOWEPO's On-Site CEO Safety Consulting is a key initiative that reflects the company's commitment to extending its safety management beyond internal employees to include partner companies. This program involves KOWEPO's executives visiting partner companies operating at project sites to collaboratively identify strategies for strengthening workplace safety. Conducted on a semi-annual basis, the initiative has also established itself as a vital communication channel between KOWEPO and its partner companies. Starting with the Taeon Thermal Power Complex Division, KOWEPO's CEO and executives have visited partner companies at the Pyeongtaek, Seo-Incheon, Gunsan, and Gimpo Combined Heat & Power Division to engage in direct communication and conduct safety inspections. Additionally, partner companies that have achieved zero-accident records are awarded incentive bonuses. This consulting initiative, which shares KOWEPO's extensive safety management expertise with partner companies, is set to continue as an ongoing commitment to workplace safety.

↓ CEO's On-site Safety Consulting (Taeon Power Plant Inspection)



Building Smart Safety Monitoring System Infrastructure

Digital technology is playing a significant role in enhancing safety infrastructure. KOWEPO's Smart Safety Monitoring System not only ensures optimal responses during major disasters but also helps prevent large-scale incidents in advance. One key initiative is the Digital Twin Integrated Fire Protection System, which utilizes Internet of Things (IoT) and big data technology to analyze fire risk levels, run simulations, and develop optimized evacuation models. Additionally, the Smart Safety Monitoring System integrates AI and IT equipment to enable comprehensive monitoring, effectively eliminating blind spots in fire detection. KOWEPO significantly reduces disaster risks by using drones and thermal imaging cameras to monitor cracks and heat generation in exhaust facilities. Additionally, thermal imaging and optical cameras are utilized to detect leaks in pipelines, further enhancing safety measures. By integrating digital technology into disaster response and predictive management, KOWEPO achieved an 'Excellent' rating in the Safety Korea Drill evaluation for two consecutive years as of 2023. Additionally, KOWEPO has achieved significant recognition by being selected as a "Weather Management Excellence Company" for four consecutive years.



Our Activities ①②③

Preventing Potential Failures in Advance

Implementation of the NEW & WISE Project

Ensuring a stable power supply to the public requires preventing unplanned shutdowns of power generation facilities. To achieve this, KOWEPO is launching the NEW & WISE Project, which aims to prevent equipment failures through in-depth analysis of operational conditions and early fault detection. This initiative is designed to integrate previously fragmented systems by establishing four key strategic directions and eight action plans, including the enhancement of monitoring systems and the activation of predictive diagnostics. Additionally, the project will incorporate cutting-edge intelligent digital technologies to establish a new operational framework, positioning it as the control tower for power generation facilities.

Through this initiative, independent systems for operational data, performance monitoring, and fuel management will be unified under the WISE Predictive Diagnostic System, enabling the development of a company-wide integrated monitoring platform for power generation facilities. Additionally, to enhance in-depth analysis of abnormal signs in power generation equipment, KOWEPO will establish an organic collaboration system between its headquarters, power plants, and the WP R&D Center. By utilizing advanced digital diagnostic tools such as thermal imaging and Sound Cap, the project aims to proactively prevent potential equipment failures.

Four Key Strategies and Eight Action Plans	
Key Strategies	Action Plans
1. Enhancement of Monitoring Systems	① Integrated Operation of Power Generation Facility Monitoring Functions ② Expansion of Digital Diagnostic Equipment Application and System Integration
2. Activation of Predictive Diagnostics	③ Establishment of a Collaborative System Utilizing Predictive Diagnostic Functions ④ Utilization of Digital Experts and User Training
3. Intelligence-Driven Diagnostic Solutions	⑤ Development and Expansion of AI-Based Diagnostic Applications (Solutions) ⑥ Development of New Monitoring and Diagnostic Interfaces
4. Strengthening Execution Capabilities	⑦ Upgrade of Operational Information System (V5 → V7) ⑧ Company-Wide Predictive Diagnostic System Utilization Competition

Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 **Advancing Power Generation with Greater Safety and Sustainability**
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Our Activities ①②③

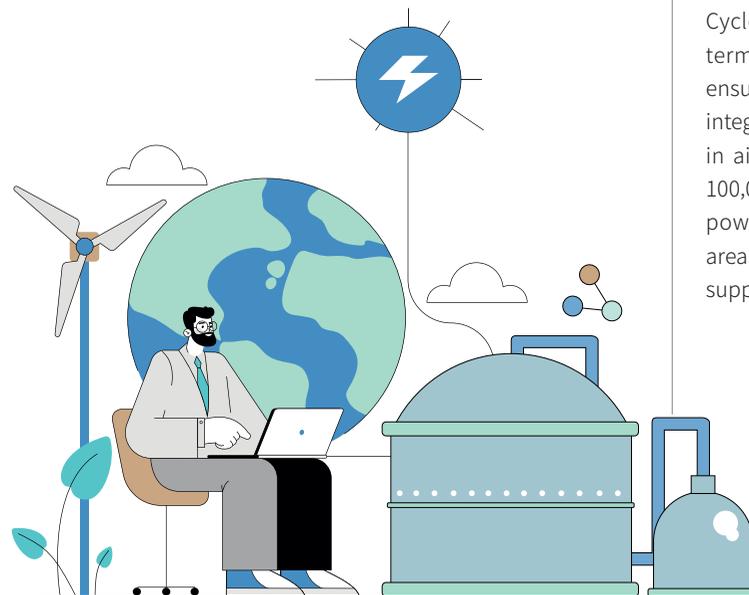
Preventing Potential Failures in Advance

Minimizing Failures Through Improvements Based on Failure Factors

KOWEPO has analyzed past failure factors and established tailored improvement measures to minimize startup failure issues in LNG facilities, which have experienced repeated start-stop cycles. Recognizing that combined-cycle facilities are more susceptible to failures due to frequent startups, the company identified three primary causes—increased thermal and mechanical fatigue, combustion instability, and malfunctioning startup equipment. To address these issues, specific improvement actions were implemented, including enhanced internal inspections, system upgrades, and operational method optimization. Through these efforts, KOWEPO has significantly minimized LNG facility failures and will continue to explore and implement more efficient solutions to address this issue in the future.

Proactive Reinforcement of Aging Facilities

The aging of facilities is directly linked to failures and safety risks, requiring heightened attention to older equipment. At KOWEPO, the proportion of facilities in operation for over 20 years has increased compared to previous years. To address this issue, the company has established a task force (TF) team to develop optimal investment strategies for facility reinforcement while also implementing measures to extend the operational lifespan of existing equipment. In the case of Taeam Thermal Power Complex Division, KOWEPO has replaced components and increased the capacity of desulfurization, denitrification, and dust collection facilities. Meanwhile, at Seoincheon Combined Cycle Power Complex Division, which began commercial operation in June 1992, the aging of major power generation facilities has necessitated proactive measures. To address this, KOWEPO has completed a feasibility study for optimizing aging Seoincheon Combined-Cycle facilities and is implementing a phased mid-to-long-term reinforcement plan to enhance facility reliability and ensure stable operations. Additionally, KOWEPO has installed integrated denitrification facilities, achieving a 67% reduction in air pollutants. In November 2023, the company reached 100,000 startup operations, continuing to contribute to stable power supply and grid stability in the Seoul metropolitan area. KOWEPO remains committed to ensuring a stable power supply through the thorough reinforcement of aging facilities.



Next Steps

Efforts to Achieve Zero Carbon Emissions, Safety Incidents, and Failure Rates



KOWEPO will continue to drive company-wide innovation to achieve Net-Zero carbon emissions by 2047, meeting the phased targets outlined in its carbon neutrality roadmap. Furthermore, the company is committed to being recognized as an eco-friendly and safe enterprise by applying new safety system technologies and advancing proactive failure detection through a multifaceted approach.



- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

Sustainable Future Story

#4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility



The increasingly prominent concept of ‘Corporate Citizen’ refers to the idea that a company holds both the rights and responsibilities of a citizen. Rather than focusing solely on profit maximization, businesses must strive for coexistence with their local communities, society, and cities. This is because partner companies and employees—key stakeholders in corporate activities—are inherently interconnected with the communities they belong to. Today, failing to coexist with the local community is regarded as a significant corporate risk. Therefore, companies must not only explore ways to support and contribute to their communities but also uphold ethical and transparent management practices internally to maintain a healthy governance structure. As a public enterprise, KOWEPO bears a national responsibility to uphold integrity-driven management. To fulfill this duty, KOWEPO is strengthening its internal control systems and ethical management framework. Additionally, as a corporate citizen, the company is committed to supporting partner companies and fostering coexistence with local communities. Through these efforts, KOWEPO aims to set a benchmark for public enterprises, growing alongside its diverse stakeholders.

Our Activities [↗](#)

① Strengthening Internal Control Systems	30
② Supporting the Growth of Partner Companies	31
③ Fostering Coexistence with Local Communities	32

Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Our Activities ①②③

Strengthening Internal Control Systems

Establishing and Implementing a New Internal Control System

As a power generation public enterprise, KOWEPO has a responsibility and obligation to uphold lawful and integrity-driven management. To meet these standards, the company is pursuing various internal and external improvements. In 2023, KOWEPO established internal control regulations, focusing on the creation of relevant committees and the development of operational and evaluation procedures as key pillars. Through this initiative, KOWEPO has established structured procedures for designing and evaluating internal control activities, along with regulations for operational assessments and performance management. The newly established Internal Control Committee, led by the CEO, is responsible for discussing internal control policies and risk response strategies. Moving forward, KOWEPO will continue to foster a healthy organization through systematic management.

↓ Briefing Session on Internal Control and Integrity-Based Corporate Culture Strategy Sharing Held



Certification of Compliance Management System (ISO 37301) Acquired

KOWEPO's efforts to strengthen internal controls have resulted in a significant achievement—the acquisition of ISO 37301 certification in 2023. ISO 37301 is an international certification that verifies an organization's compliance policies, regulatory frameworks, and risk response systems align with global standards. It is known to be more rigorous and challenging to obtain than ISO 37001, as it requires a higher level of compliance management. To achieve this certification, KOWEPO designated a responsible department, key personnel, and managers to oversee the system's implementation. Additionally, the company developed regulations and manuals to ensure employees can effectively respond to legal obligations and compliance risks. KOWEPO is committed to going beyond certification by ensuring the stable operation of this system through expanded employee training, continuous monitoring, and ongoing implementation efforts.

↓ Compliance Management System (ISO 37301) Certificate



Efforts and Achievements in Enhancing Integrity

To foster a transparent and ethical organization, on-site communication based on mutual trust is essential. In particular, genuine dialogue is critical for diagnosing organizational challenges and deriving tangible integrity improvement measures that employees can directly experience. In May 2023, KOWEPO established the TO-BE Integrity Consultant Group, a permanent in-house integrity body, to strengthen on-site communication. The company appointed 27 MZ-generation employees as consultants, recognizing that MZ employees make up nearly 60% of the workforce. These consultants are tasked with identifying unfair practices experienced by employees and communicating them directly to management, ensuring that integrity improvements align with the organization's evolving workforce dynamics. The Integrity Consultants identified 18 integrity improvement tasks in 2023 and actively participated in the monitoring process. As a result of these continuous efforts, KOWEPO achieved a two-tier improvement in the Comprehensive Integrity Assessment conducted by the Anti-Corruption & Civil Rights Commission, earning a Grade 2 rating—the highest among public enterprises in 2023, compared to its 2022 ranking. Recognizing that the pursuit of integrity must be an ongoing effort, KOWEPO remains committed to enhancing transparency and advancing ethical management practices.

↓ Appointment Ceremony for MZ Integrity Consultants Held



Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 **Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility**

ESG Management

ESG Factbook

Appendix

Our Activities ①②③

Supporting the Growth of Partner Companies

Supporting the Establishment of Safety and Health Management Systems for Partner Companies

Smaller partner companies often face challenges in establishing and maintaining safety and health management systems, making them more vulnerable to serious industrial accidents. As part of its commitment to cooperative and sustainable management, KOWEPO supports the development of safety and health management systems for small-scale partner companies to help prevent serious workplace accidents. In 2023, KOWEPO conducted a pilot program, and from 2024 onward, the initiative has been fully launched. This program supports 20 partner companies with fewer than 50 employees, helping them establish robust safety and health management systems. Specific support measures include assessing current safety management practices, providing risk assessment methodologies, offering tailored safety consultations, ensuring compliance with legal obligations under the Serious Accidents Punishment Act, and conducting specialized safety training for employees and executives. KOWEPO will continue to provide support to ensure that both KOWEPO and its partner firms establish and maintain safe workplaces for all employees.

↓ Providing Consulting for the Establishment of Safety and Health Management Systems for Partner Companies



Supporting Partner Companies in Expanding into Overseas Markets

KOWEPO also supports small and medium-sized partner companies in expanding into global markets by facilitating overseas market entry. In November 2023, KOWEPO signed a joint cooperation agreement with the Korea International Cooperation Agency (KOICA), Korea District Heating Corporation, and Korea Gas Corporation to support Korean SMEs in securing overseas business opportunities. Through this initiative, the company provides overseas bid information, introduces international exhibitions, and facilitates buyer matching, aiming to help partner companies achieve tangible contract successes. Additionally, by providing customized support such as AEO (Authorized Economic Operator) certification assistance, participation in international exhibitions, and overseas branch establishment programs, KOWEPO has helped partner companies achieve KRW 5.97 billion in export revenue. In 2024, KOWEPO will continue its efforts to support partner companies' global expansion by participating in Enlit Europe, the largest power generation equipment exhibition in Europe, alongside its SME partners. Through these initiatives, KOWEPO remains committed to fostering mutual growth with partner companies, strengthening its role in supporting their overseas market entry.

↓ SME Export Capacity Building Seminar Held



Initiating Support for Energy Efficiency in Partner Companies

As a public power generation company, helping partner companies use energy more efficiently is both a fundamental and essential aspect of win-win management. In July 2023, KOWEPO signed a memorandum of understanding (MOU) with six organizations for joint development of energy efficiency projects aimed at reducing energy consumption in industrial complexes and improving corporate energy efficiency through collaborative development of platforms and systems. Additionally, KOWEPO has launched a support initiative to assist small and medium-sized enterprises (SMEs) in improving their energy efficiency, contributing to overcoming energy challenges and achieving carbon neutrality. Through this initiative, energy diagnosis consulting and energy efficiency improvement equipment installation were provided to 20 SMEs with a total support amount of KRW 540 million. In 2024, KOWEPO plans to further strengthen collaboration in new energy businesses by promoting a pilot project for energy efficiency enhancement in the Gimpo Industrial Complex. KOWEPO will continue working alongside its partner companies to help them achieve energy self-sufficiency and drive sustainable growth.

↓ Signing Ceremony for Joint Development Agreement on Industrial Complex Energy Efficiency Enhancement Project



Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Our Activities ①②③ →

Supporting the Growth of Partner Companies

Workforce Capacity Building for Partner Companies in Response to Coal Power Phase-Out

KOWEPO's Taeon Thermal Power Complex Division will begin the phased decommissioning of Unit 1 at the end of 2025. In response, KOWEPO is actively working to support local workers and partner companies during this transition. Notably, under the High-Tech Workforce Training Agreement for a Just Energy Transition, signed in 2021, the company has provided training for 378 employees working in coal handling facilities to date. In March 2024, KOWEPO signed a joint agreement with Taeon County, the Chungcheongnam-do Job and Economy Promotion Agency, and the Korea University of Technology and Education to support workforce capacity building for employees of coal power plant partner companies. Through this agreement, KOWEPO is providing job competency enhancement and transition training for partner company employees at the Taeon Thermal Power Complex Division. KOWEPO is responsible for assessing the training needs of on-site partner companies, analyzing outcomes, and supporting participation in the program. Additionally, the company is exploring various measures to mitigate employment instability and promote regional stability while maintaining close collaboration with local institutions.

↓ Signing Ceremony for MOU on Supporting Coal Power Plant Workers' Competency Enhancement with Taeon County



Our Activities ①②③ →

Fostering Coexistence with Local Communities

Community Energy Efficiency Support Initiative

Since 2020, KOWEPO has been implementing the Climate Crisis Resilient Village Project in collaboration with Chungcheongnam-do. This initiative involves upgrading lighting systems in communal facilities such as village halls and senior centers within designated Climate Crisis Resilient Villages to high-efficiency equipment. It also includes infrastructure improvements, such as replacing outdated boilers, and conducting energy-saving education programs. In 2024, KOWEPO renewed its partnership agreement with Chungcheongnam-do, further advancing its commitment to the Climate Crisis Resilient Village Project. To date, 149 villages across nine cities and counties—including Taeon and Gongju, where KOWEPO's power generation headquarters are located—have been designated for the program, achieving a reduction of 414 tons of CO₂ emissions and saving KRW 200 million in energy costs. For 2024, 64 villages in Asan, Nonsan, and Dangjin have been selected for the initiative, with projects currently underway. Through this program, KOWEPO remains dedicated to supporting regional carbon neutrality, reinforcing its commitment to sustainable management that protects both the environment and communities.

↓ Signing Ceremony for MOU on Climate Crisis Resilient Village Project with Chungcheongnam-do Province



Resource Circulation-Linked Senior Employment Creation

The issue of senior employment, driven by an aging population, has emerged as a national concern. Taeon, Chungcheongnam-do—where KOWEPO's Taeon Thermal Power Complex Division is located—has a particularly high proportion of elderly residents compared to other regions, making efforts to address senior-related challenges even more essential. KOWEPO is contributing to both carbon neutrality and senior employment solutions by creating job opportunities for the elderly through resource circulation initiatives. The Seobu Gong-gam Senior Employment Creation Project, conducted in collaboration with the social enterprise Elephant Factory, repurposes discarded plastic waste and used toys into LED lighting and other products. These upcycled items are then donated to vulnerable communities, fostering both environmental sustainability and social contribution. As part of this initiative, 35 elderly residents in Taeon participated in collecting a total of 2,026 kg of waste plastic. The collected plastic is then used by Elephant Factory to produce LED lighting, which KOWEPO donates to vulnerable communities in the region. Since the project's official launch in 2018, approximately 250 individuals have been provided with job opportunities. Additionally, KOWEPO continues to support disadvantaged groups in the local community through various initiatives, including the distribution of essential goods and charitable donations.

↓ 2024 Senior Job Creation Project Mid-term Report Meeting Held



Overview

Sustainable Future Story

- #1 Enhancing Competitiveness with Top-Tier Quality and Technology
- #2 Driving Sustainability Through Diverse New Business Ventures
- #3 Advancing Power Generation with Greater Safety and Sustainability
- #4 Fostering Mutual Growth with Stakeholders Through Fairness and Responsibility

ESG Management

ESG Factbook

Appendix

Our Activities ①②③

Fostering Coexistence with Local Communities

Hands-On Safety Training for Local Residents

KOWEPO has demonstrated its top-tier disaster preparedness capabilities across power generation facilities, as evidenced by multiple evaluation results. However, KOWEPO is not stopping there—it is also striving to enhance the overall disaster response capabilities of the local community. One key initiative in this effort is hands-on disaster safety training. Since 2019, KOWEPO has been conducting hands-on disaster safety training for local residents and employees’ families in collaboration with disaster safety education institutions. The program primarily focuses on educating children. The hands-on training, designed to help children understand disasters such as earthquakes, fires, typhoons, and traffic accidents in an age-appropriate manner, has received highly positive feedback from participants.

Additionally, KOWEPO provides safety training programs for partner company employees, who are both members of the workforce and integral to the local community. This training program offers hands-on experience and discussion-based sessions to educate workers on potential accidents that may occur during high-risk tasks and the appropriate response measures. As safety remains the highest priority for KOWEPO, KOWEPO will continue various community engagement initiatives to further promote the importance of workplace and disaster safety.



↕↔ Experiential Disaster Safety Training with Taean Residents



Next Steps

Expanding Stakeholder Engagement and Strengthening Community Support



KOWEPO is committed to expanding communication opportunities to meet the expectations of diverse stakeholders while strengthening its internal control systems and fostering a culture of integrity for more transparent and responsible management. As an integral part of the local community, KOWEPO will continue to implement various support programs and initiatives to promote mutual growth with regional businesses and partner companies. Additionally, the company will closely collaborate with local governments to identify areas requiring support and advance strategies for sustainable co-growth.



- ESG Highlight
- ESG Framework
- Double Materiality Assessment
- Stakeholder Engagement

ESG Management

ESG Highlight	35
ESG Framework	36
Double Materiality Assessment	38
Stakeholder Engagement	40

ESG Highlight

As of End of 2023

<p>E Environment</p>	<p>Increase in Renewable Energy Generation • 1,098 GWH (2022) → 1,631 GWH (2023)  48.5% ↑</p>	<p>Expansion of Environmental Management Investment • KRW 216.0 Billion (2022) → KRW 299.1 Billion (2023)  38.5% ↑</p>	<p>Achieved World's First 60% Hydrogen Co-Firing Demonstration (80MW)  60%</p>	<p>First Among Power Generation Companies to Participate in the Government Project for Establishing a Smart Integrated Environmental Management System  1st Among Peers</p>
<p>S Social</p>	<p>Achieved Zero Serious Accidents for Five Consecutive Years and a Fatality Rate (per 10,000 workers) of 0%  Zero</p>	<p>Grand Prize Winner in Public Institution Labor-Management Innovation  Grand Prize</p>	<p>Job Creation through Co-Growth: 654 Jobs • Eco-Friendly & Safety Sector: 489 Jobs • Community Sector: 165 Jobs  654 Jobs</p>	<p>Highest Rating in the Win-Win Growth Evaluation • Excellent (2022) → Highest (2023)  Highest</p>
<p>G Governance & Economy</p>	<p>National Anti-Corruption and Integrity Assessment Rating Improved from Grade 4 (2022) to Grade 2 (2023)  Grade 2</p>	<p>New Certification Acquired for ISO 37301 (Compliance Management System)  New Certification</p>	<p>Expansion of Specialized Subcommittees 3 (2022) → 6 (2023) • New Areas Added: Safety & Security, Financial Strategy, Business Development  6 Committees</p>	<p>Board Meetings Held: 10 Times • Average Attendance Rate: 97%  10 Times</p>

Overview

Sustainable Future Story

ESG Management

→ ESG Highlight

ESG Framework

Double Materiality Assessment

Stakeholder Engagement

ESG Factbook

Appendix

ESG Framework

KOWEPO ESG Management Framework

KOWEPO established the Rolling ESG Implementation Strategy Plan in 2022, detailing its ESG management strategy and future growth initiatives. This initiative aims to proactively respond to paradigm shifts in the energy industry while advancing ESG management strategies to internalize the company’s vision and strategic direction. With the vision of ‘From Energy, To Sustainable Green World,’ the company has set three new strategic directions: Establishing a carbon-neutral ecosystem, Creating sustainable public value, and Achieving responsible management that meets public trust expectations. Additionally, KOWEPO has developed specific objectives for each area to strengthen the connection between its core values and strategic framework, ensuring effective implementation of strategic initiatives. By actively incorporating stakeholder feedback, KOWEPO remains committed to fulfilling its responsibilities as a state-owned power generation company.

Overview

Sustainable Future Story

ESG Management

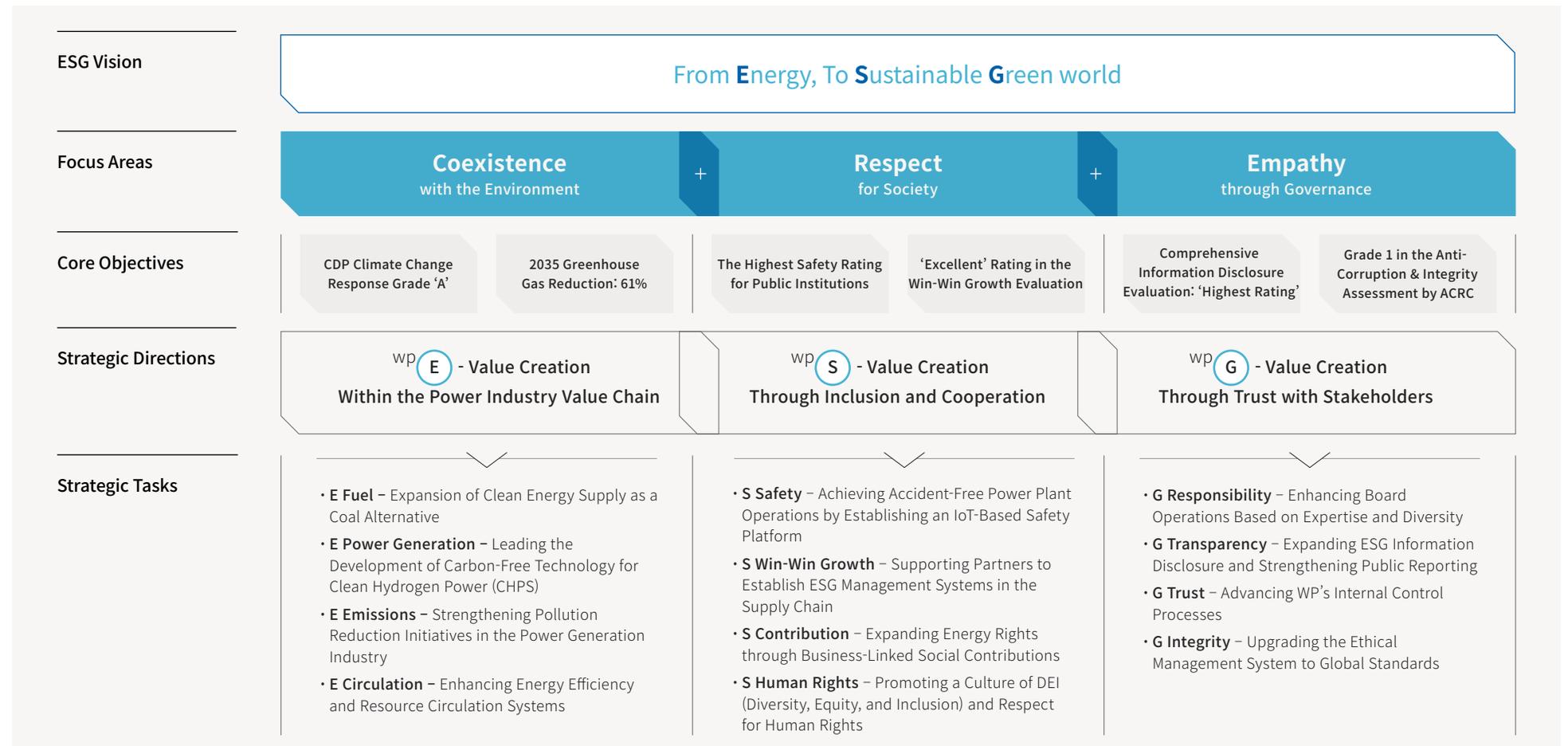
ESG Highlight

→ **ESG Framework**

Double Materiality Assessment
Stakeholder Engagement

ESG Factbook

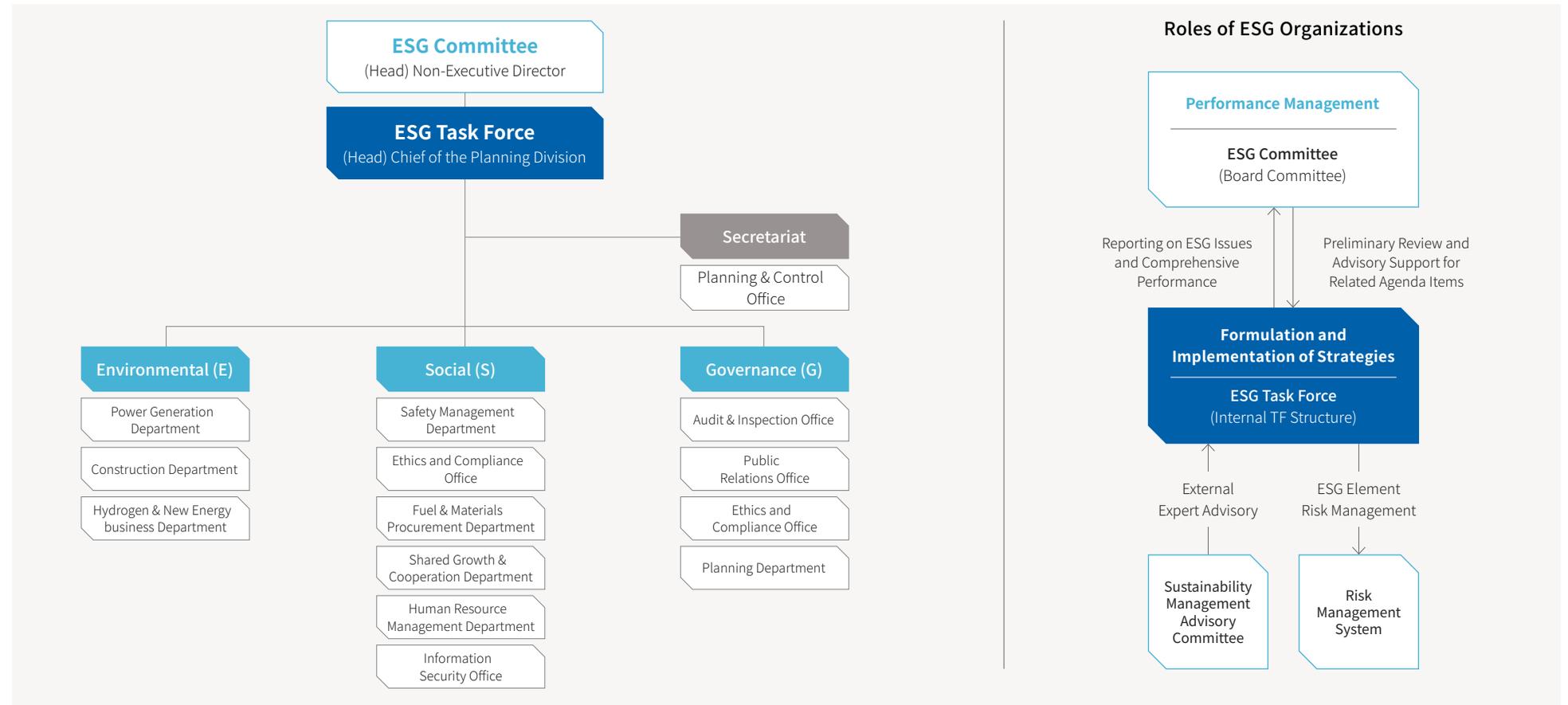
Appendix



ESG Framework

ESG Implementation Organization

Since 2021, KOWEPO has been operating the ESG Committee and the ESG Task Force to drive its ESG initiatives. The ESG Committee, as a board committee within the highest decision-making body, the Board of Directors, is responsible for reviewing key ESG issues and providing advisory support for ESG management strategies and business plans. As of December 2023, the committee consists of five members, including three external directors and two executive directors. In 2023, KOWEPO strengthened the role and responsibilities of the ESG Committee, convening five meetings to deliberate and approve key agenda items, including energy efficiency improvement, mutual growth economic ecosystem development, internal integrity enhancement, and carbon neutrality management plans. The ESG Task Force serves as an operational body that directly executes detailed tasks aligned with the ESG management strategy and reports major ESG issues and achievements to the ESG Committee. Additionally, the task force is led by the Head of the Planning Division and operates in collaboration with the Strategic Planning Office, working closely with relevant departments across various business areas.



Double Materiality Assessment

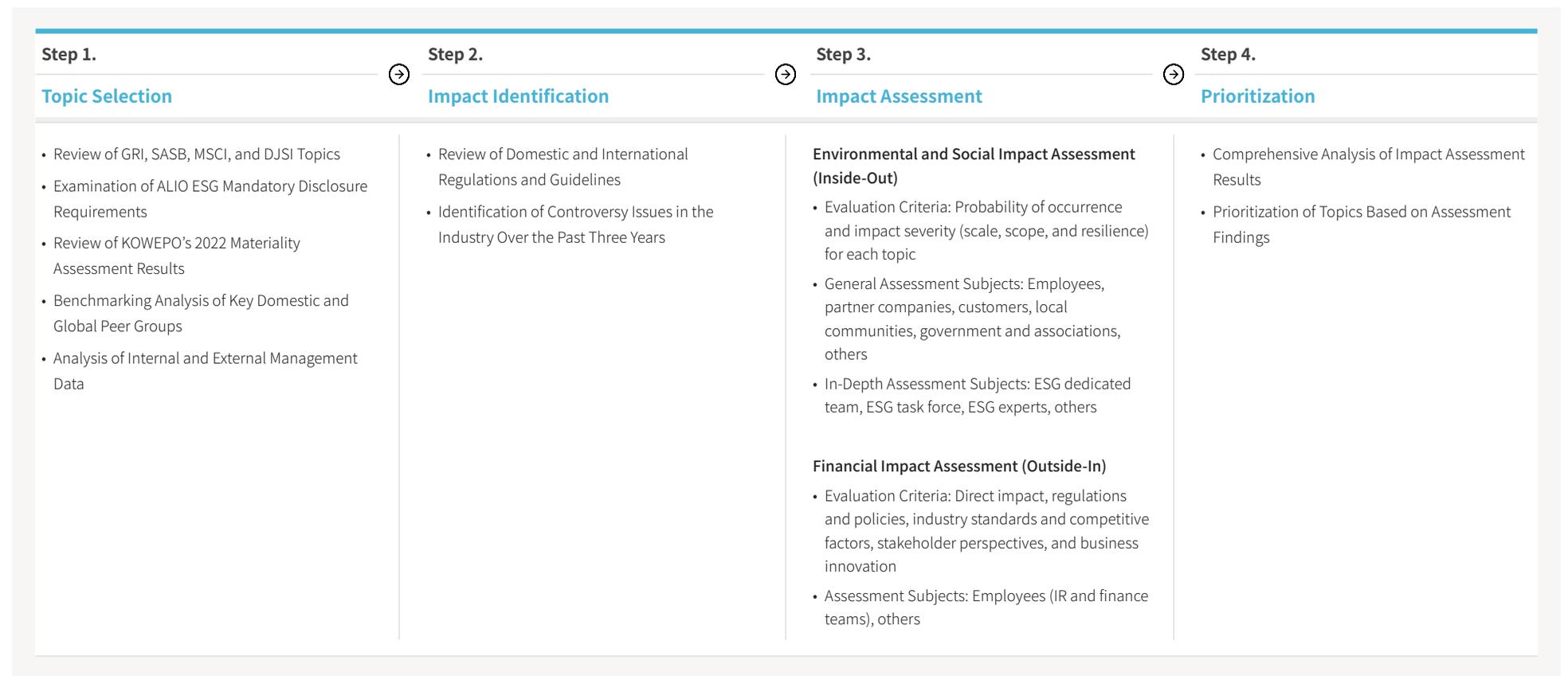
Materiality Assessment Process

Double Materiality Assessment

KOWEPO conducts a Double Materiality Assessment to identify key business issues in the process of implementing sustainable management. Materiality assessment is a structured process that involves identifying key stakeholders in corporate sustainability management, recognizing potential ESG issues, and evaluating their impact and significance. Among these, Double Materiality Assessment considers not only the financial impact of external factors on the company (Outside-in, Financial Materiality) but also the environmental and social impact the company has on external stakeholders (Inside-out, Impact Materiality).

Double Materiality Assessment Process

KOWEPO carries out the Double Materiality Assessment through the following four stages: ① Topic Selection ② Impact Identification, ③ Impact Assessment, and ④ Prioritization



Double Materiality Assessment

Double Materiality Assessment Results

KOWEPO conducted a double materiality assessment, evaluating a total of 18 topics—six in the environmental domain, six in the social domain, and six in the governance and economic domain. Based on the assessment results, five key material topics were identified as top priorities for consideration. The five key material topics identified as top priorities are Strengthening Climate Change Response, Expanding Clean Energy Deployment, Managing Air Pollutant Emissions, Enhancing Industrial Safety and Health, and Creating Future Growth Drivers. Additionally, the importance of each topic was assessed by distinguishing between environmental and social impacts and financial impacts. Key stakeholders for each topic were identified by evaluating whether major stakeholders are affected by the respective topics.

Ranking	Topic	Impact Materiality	Financial Materiality	Key Stakeholders							Page
				Employees	Local Communities	Suppliers	General Public	Shareholders & Investors	Government & Related Institutions	Academia & Research Institutions	
1	Strengthening Climate Change Response	●	●	●	●	●	●	●	●	●	23-25, 42-51
2	Expanding Clean Energy Deployment	●	●	●	●	●	●	●	●	●	18-22, 48-51
3	Managing Air Pollutant Emissions	●	●		●	●			●		51-52
4	Enhancing Industrial Safety and Health	●	●	●	●	●			●		26-28, 55-59
5	Creating Future Growth Drivers	◐	●	●		●		●	●	●	13-17, 48-51
6	Integrated Risk Management	◐	◐	●		●		●			78-80
7	Strengthening Stable Energy Security	●	◐		●	●	●	●	●		71-72
8	Waste Management	◐	◐		●					●	51-55
9	Promoting a Culture of Human Rights Respect	◐	◐	●	●	●					62-64
10	Advancing Ethical Management	◐	◐	●		●		●			30, 75-78
11	Fostering Sustainable Regional Coexistence	◐	○	●	●	●	●				32-33, 68-71
12	Ensuring Governance Soundness and Transparency	○	◐					●	●		73-75
13	Water Usage and Reuse	◐	○		●						53
14	Developing and Managing Human Resources	○	◐	●		●					59-62
15	Supply Chain Management and Mutual Growth	○	◐	●	●	●					31-32, 65-67
16	Enhancing Stakeholder Communication and Engagement	○	○	●	●	●	●	●	●		60-61, 66-67, 69-71
17	Strengthening Information Security	◐	○	●			●				71-72
18	Protecting Biodiversity and Ecosystems	○	○	●	●					●	55

* Due to the refined double materiality assessment and further segmentation of topics this year, determining the comparability with the list of material topics in past reports has become challenging

Stakeholder Engagement

Stakeholder Engagement

KOWEPO actively communicates with stakeholders to fulfill its social responsibility as a state-owned power generation company closely linked to the daily lives of the public. The company has identified key stakeholders, including employees, local communities, partner companies, the general public, shareholders and investors, government agencies and related institutions, as well as academia and research institutions. To effectively gather stakeholder input, KOWEPO operates various communication channels tailored to the characteristics of each stakeholder group. Through these channels, the company regularly identifies key issues and stakeholder demands, ensuring their integration into management activities.

Stakeholder-Specific Communication Channels and Outcomes							
Category	Employees 	Local Communities 	Partner Companies 	General Public 	Shareholders & Investors 	Government & Related Institutions 	Academia & Research Institutions 
Major Issues	<ul style="list-style-type: none"> Enhancing Industrial Safety and Health Promoting a Culture of Human Rights Respect Developing and Managing Human Resources 	<ul style="list-style-type: none"> Fostering Sustainable Regional Coexistence Managing Air Pollutant Emissions Protecting Biodiversity and Ecosystems Waste Management Water Usage and Reuse 	<ul style="list-style-type: none"> Supply Chain Management and Mutual Growth Strengthening Stable Energy Security 	<ul style="list-style-type: none"> Strengthening Information Security Enhancing Stakeholder Communication and Engagement 	<ul style="list-style-type: none"> Advancing Ethical Management Ensuring Governance Soundness and Transparency Integrated Risk Management 	<ul style="list-style-type: none"> Strengthening Climate Change Response Expanding Clean Energy Deployment 	<ul style="list-style-type: none"> Creating Future Growth Drivers
Communication Channels	<ul style="list-style-type: none"> Anonymous Communication Board (WP-POST) Labor-Management Council CEO Talk Concert Management Issue Briefings Webzine <Seobu Gong-gam> 	<ul style="list-style-type: none"> Social Volunteer Group Public Contest for Community Engagement Projects Corporate Social Responsibility (CSR) Committee Regional Development Council Environmental Management Committee Public Hearings and Briefings 	<ul style="list-style-type: none"> Co-Growth Open Platform Corporate Growth Response Center Safety Consulting for Partner Companies CEO Safety Innovation Council 	<ul style="list-style-type: none"> Company Website Social Media WP Public Proposal Platform Online Public Communication Monitoring Group Supporters Group (Seobu Rise) 	<ul style="list-style-type: none"> General Shareholders' Meeting Investor Relations (IR) Materials Corporate Disclosures Anti-Corruption and Integrity Center 	<ul style="list-style-type: none"> National Assembly Audit Regulatory Improvement Council SME Support Council 	<ul style="list-style-type: none"> Industry-Academia-Research Collaboration Council Joint Seminars and Workshops
Key Achievements	<ul style="list-style-type: none"> Achieved Grand Prize in Public Sector Labor-Management Innovation Award Achieved 91.33 points in the internal communication satisfaction survey Enhanced reporting through internal channels, achieving a 100% case resolution rate 	<ul style="list-style-type: none"> Created 654 co-growth jobs Designated a Certified Community Contribution Company for 5 Consecutive Years 	<ul style="list-style-type: none"> Maintained zero major industrial accidents for five consecutive years Identified and improved 318 potential safety hazards 	<ul style="list-style-type: none"> Expanded the Public Proposal System, increasing proposals from 38 to 280 Implemented 42 public proposal ideas 	<ul style="list-style-type: none"> Achieved Grade 2 in the 2023 Anti-Corruption and Integrity Assessment by the Anti-Corruption and Civil Rights Commission 	<ul style="list-style-type: none"> Revised the Carbon Neutral Management Plan in response to the government's revised emission reduction targets Set a goal to achieve carbon neutrality by 2047 	<ul style="list-style-type: none"> Signed five technology cooperation agreements Successfully demonstrated the world's first 60% hydrogen co-firing power generation Developed Korea's first K-Combined Cycle Power Plant standard model Secured a solar power project in the UAE

Overview

Sustainable Future Story

ESG Management

- ESG Highlight
- ESG Framework
- Double Materiality Assessment
- Stakeholder Engagement

ESG Factbook

Appendix

ESG Factbook

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Appendix



Environment

Advancing Environmental Management	42
Climate Change Response	45
Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant	51

Social

Enhancing Industrial Safety and Health	55
Enhancing Employee Value and Engagement	59
Promoting a Culture of Human Rights Respect	63
Supply Chain Management and Mutual Growth	65
Revitalizing Local Communities	68
Strengthening Information Security	71

Governance

Governance	73
Advancing Ethical Management	75
Risk Management	78

ESG Data

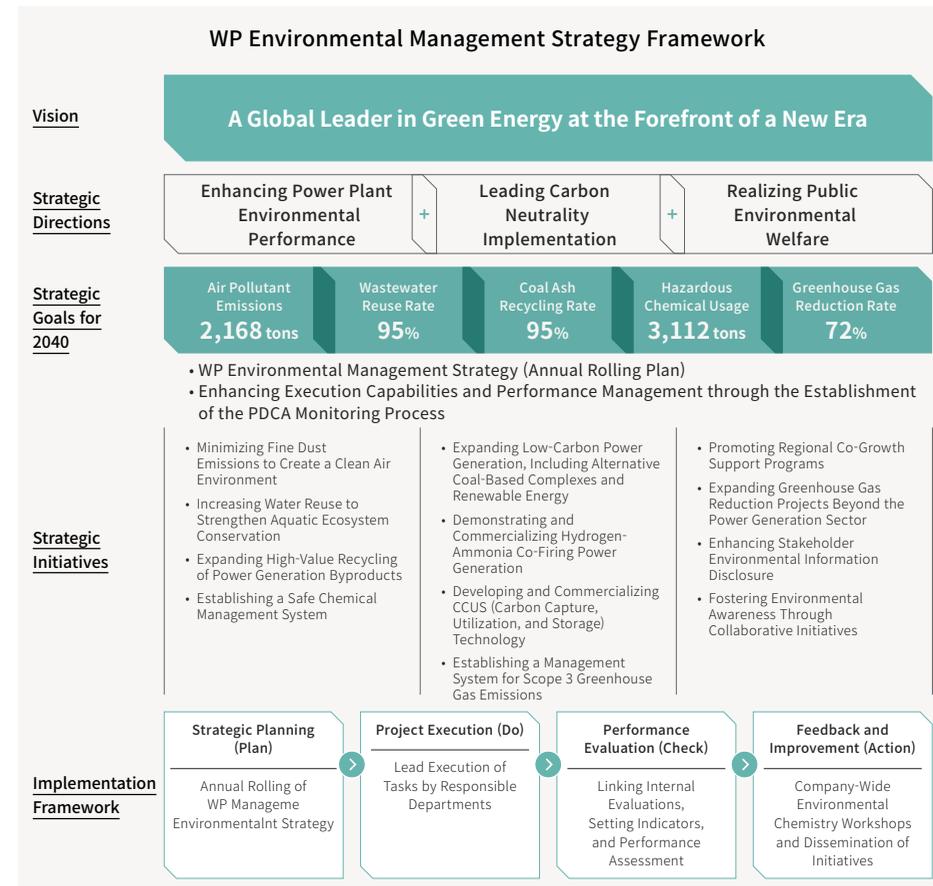
Advancing Environmental Management

Framework

Environmental Vision Framework and Goals

As a leading state-owned enterprise in sustainability, KOWEPO has established an environmental vision framework to fulfill its social responsibility through eco-friendly power generation. Under the vision of 'A Global Leader in Green Energy at the Forefront of a New Era,' KOWEPO is committed to enhancing power plant environmental performance, leading carbon neutrality implementation, and realizing public environmental welfare through targeted strategic initiatives.

Environmental Management Strategy Framework



Environmental Management Policy

KOWEPO has established and publicly disclosed its environmental management policy on its website, demonstrating its commitment to environmental management and ensuring its effective implementation. All employees strictly adhere to the environmental management policy, integrating environmental considerations into corporate operations and key decision-making processes.

Environmental Management Policy

Environmental Management Policy

To realize KOWEPO's vision of "A Global Leader in Green Energy at the Forefront of a New Era," all employees recognize environmental policy as a core priority and are committed to implementing the environmental management policy.

- ① Establish and maintain a world-class environmental management system, enforcing internal standards that exceed regulatory requirements.
- ② Minimize greenhouse gas and pollutant emissions to achieve carbon neutrality and contribute to the development of a green society through eco-friendly energy production.
- ③ Reduce waste generation and enhance the high-value recycling of power byproducts to promote a circular resource economy.
- ④ Actively strive to mitigate ecological disturbances caused by climate change, enhance biodiversity, and restore ecosystems to foster coexistence with nature.
- ⑤ Strengthen environmental awareness through continuous education and open communication with internal and external stakeholders, fostering a low-carbon, eco-friendly corporate culture.

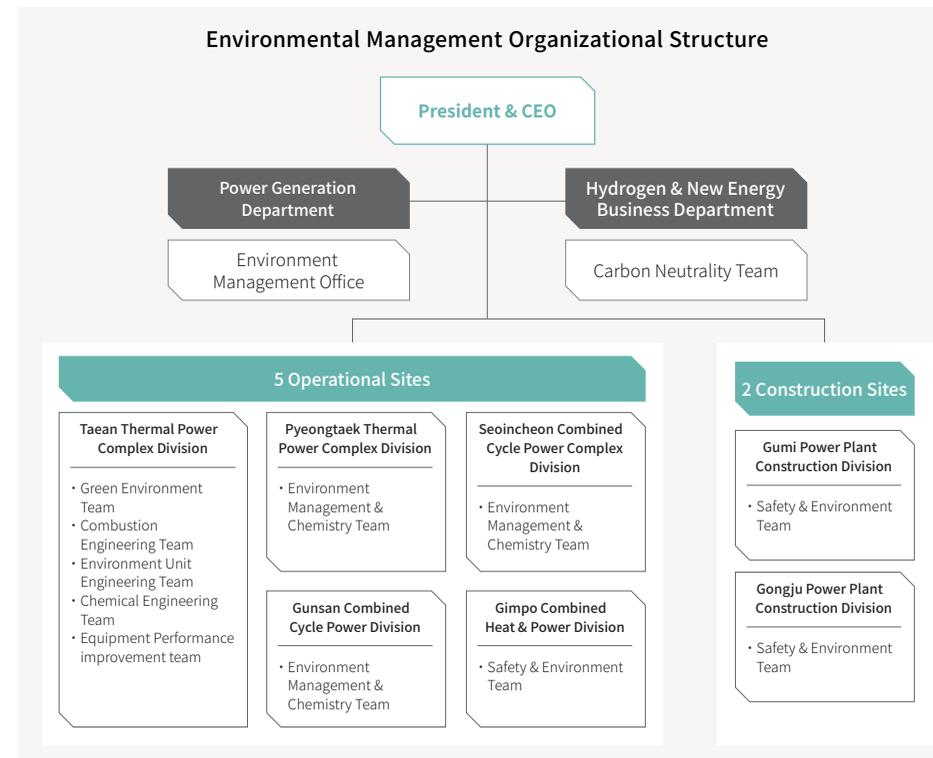
November 2024 President & CEO Lee Jung Bok

Advancing Environmental Management

Management Organization

Environmental Management Implementation Structure

To drive eco-friendly and carbon neutrality initiatives, KOWEPO has established a company-wide environmental management structure. The Environment Management Office under the Power Generation Department and the Carbon Neutrality Team under the Hydrogen & New Energy Business Department at the headquarters oversee overall environmental management. Additionally, dedicated environmental teams operate at each of KOWEPO's seven operational and construction offices. In particular, the Taean Thermal Power Complex Division, as a large-scale coal-fired power generation facility, has specialized Environmental and Chemical Engineering teams within each division that manage the operation, maintenance, and management of environmental facilities. In 2023, KOWEPO further strengthened project execution by establishing the Equipment Performance Improvement Team to enhance the environmental facility performance of Taean Units 5 and 6.



Risk Management

Environmental Risk Management

KOWEPO conducts quarterly on-site inspections to assess environmental management at its facilities, ensure compliance with integrated permits, and proactively identify and mitigate environmental risks. In 2023, a total of 359 environmental risks were identified, including deterioration of pollution control facilities, disposal of neglected waste, and rectification of permit deficiencies. Among these, 322 risks have been fully addressed, while 37 are being managed with established improvement plans. To prevent potential environmental risks arising from evolving site conditions and address vulnerabilities, KOWEPO collaborates with external experts. Additionally, the company has introduced specialized training programs to enhance the capabilities of internal personnel in diagnosing and managing environmental risks.

↓ Environmental Diagnostic Capability Enhancement Expert Training & On-Site Assessments



2023 Environmental Risk Assessment Results

Category	Identified Cases	Improved Cases
Air Quality	86	64
Water Quality	40	37
Waste Management	20	10
General & Others	213	211
Total	359	322

Advancing Environmental Management

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Environment

→ Advancing Environmental Management

Climate Change Response

Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

Enhancing Industrial Safety and Health

Enhancing Employee Value and Engagement

Promoting a Culture of Human Rights Respect

Supply Chain Management and Mutual Growth

Revitalizing Local Communities

Strengthening Information Security

Governance

Governance

Advancing Ethical Management

Risk Management

ESG Data

Appendix



Risk Management

Environmental Management System (ISO 14001) Certification

KOWEPO has obtained ISO 14001 certification for environmental management systems across all its business sites and actively promotes environmental management based on this framework. ISO 14001 certification signifies that a company establishes environmental policies and objectives, allocates resources and organizes structures for environmental management, and systematically minimizes and manages its environmental impact. Since first obtaining certification in 1999, KOWEPO has continuously enhanced its environmental management system and regularly renews the certification.



← ISO 14001 (All-Sites Certification)

Environmental Product Declaration (EPD) Certification

KOWEPO became the first domestic power generation company to obtain Environmental Product Declaration (EPD) certification for its produced electricity in 2012. The EPD system evaluates the environmental impact of a product or service throughout its entire lifecycle—including raw material extraction, production, distribution, use, and disposal—and provides quantified environmental information. In 2013, KOWEPO expanded its certification scope by obtaining EPD certification for by-products generated during the power generation process, such as coal ash and desulfurized gypsum. Furthermore, in 2017, KOWEPO became the first company in Korea to obtain Water Footprint Certification for the electricity produced at the Taean Thermal Power Complex Division. This certification assesses and discloses the impact of corporate activities on water resources.



← Environmental Product Declaration (EPD) Certification

Performance

Environmental Management Investment

To solidify its position as a global leader in eco-friendly energy, KOWEPO continues to invest in environmental facility upgrades and clean hydrogen initiatives. In 2023, KOWEPO invested KRW 60.2 billion in environmental facilities. In 2024, to increase the share of clean power generation, the company prioritized investments in alternative complexes, raising the investment amount from 37.7% (KRW 451 billion) of the total budget to 45.8% (KRW 608.2 billion). Simultaneously, to enhance the environmental performance of existing facilities, the budget for environmental and safety facility improvements was increased by over 10%, from KRW 243.2 billion to KRW 277.5 billion.

Environmental Management Investment Amounts

Category	Unit	2021**	2022	2023
Environmental Facility Investment Costs	KRW million	72,712	30,668	60,215
Environmental Sector Operating Costs*	KRW million	167,945	185,356	238,927
Total	KRW million	240,657	216,024	299,142

* Includes: Repair and maintenance costs, service fees, environmental-related charges and contributions, training expenses, and R&D costs.

** Correction of previously disclosed data due to aggregation errors.

Environmental Management Initiatives

KOWEPO operates power generation facilities in various regions and is committed to minimizing environmental impacts while fostering coexistence with local communities. To achieve this, the company implements a range of support programs. One key initiative is the Urban Regeneration Renewable Energy Project, which supplies city gas used for hydrogen fuel generation to local communities. This project has provided city gas to approximately 1,700 households in areas such as Mungyeong, reducing annual heating costs by approximately KRW 500,000 per household. Additionally, KOWEPO conducts environmental education programs for local residents, helping them adapt to climate change and the energy transition. To facilitate communication and collaboration with various local stakeholders, KOWEPO operates the Environmental Management Committee, Environmental Education Council, and Rapid Response Council, ensuring that community feedback is actively incorporated into its environmental management efforts.

Advancing Environmental Management

Performance

Environmental Management Initiatives

Regional Business Programs		
Project Name	Collaborating Institution	Description
Farm Greenhouse Gas Reduction Project	Ministry of Agriculture, Food and Rural Affairs; Korea Agricultural Technology Promotion Agency	A project to reduce greenhouse gas emissions by replacing existing facilities in 151 farms nationwide with geothermal and air-source heat pumps, while providing monitoring support.
Climate Crisis Resilient Village	Chungcheongnam-do	A project aimed at improving community facilities in villages vulnerable to climate change and providing education to help residents adapt to climate change.
Industrial Complex Energy Efficiency Enhancement	Ministry of Trade, Industry and Energy; Korea Industrial Complex Corporation	A project to reduce energy consumption in industrial complexes nationwide by installing solar power and small-scale wind power plants while providing energy efficiency solutions.
Community Energy Support Program	Taeon County, etc.	A project aimed at reducing the energy cost burden for vulnerable communities by providing fuel subsidies and supporting the replacement of boilers and home appliances.
Urban Regeneration Renewable Energy Project	Mungyeong City, Yeongnam Energy, Mine Reclamation Corporation, etc.	A project to expand the supply of city gas used for hydrogen fuel cell power generation to local communities, enabling residents to access more city gas and reduce heating costs.
Carbon Forest Creation Project	Gimpo, Pyeongtaek, Seo-Incheon, etc.	A project to reduce greenhouse gases by planting saplings to create carbon forests, while providing eco-friendly recreational spaces for the community.
Environmental Management Committee, Environmental Education Council, and Rapid Response Council	Local Governments, Residents, Government Agencies, etc.	Establishing a stakeholder communication and cooperation framework to mitigate negative perceptions of power plant environmental impacts and promote mutual growth.

Promoting Environmental Management Culture

KOWEPO has implemented various initiatives to encourage employees to adopt a low-carbon lifestyle in both their professional and daily lives. These initiatives include a walk-to-work campaign, lights-out events, and quiz competitions. Through these activities, KOWEPO actively promotes environmental awareness among employees, reinforcing its commitment to environmental management. Additionally, to foster a culture of carbon neutrality, the company organized a nationwide contest inviting submissions on carbon neutrality practices and themes. In 2023, KOWEPO selected 11 winning entries from a total of 174 submissions. The selected slogans were used to create promotional materials aimed at raising public awareness of the importance of carbon neutrality.



↑ National Carbon Neutrality Idea Contest

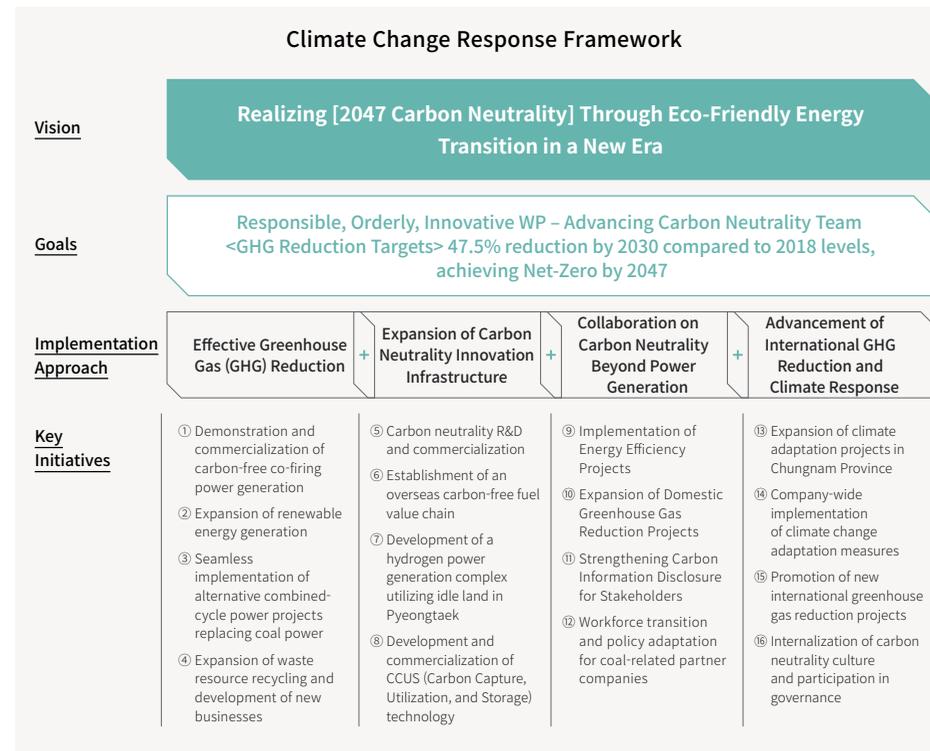
Climate Change Response

Framework

Climate Change Response Framework

KOWEPO has established a climate change response framework aligned with the national Carbon Neutrality and Green Growth Master Plan to achieve carbon neutrality by 2047. This framework is built on four key strategic directions: effective greenhouse gas (GHG) reduction, expansion of carbon neutrality innovation, carbon neutrality initiatives beyond power generation, and promotion of international GHG reduction and climate action. To implement these strategies, KOWEPO has identified 16 specific action plans. Additionally, to meet its GHG reduction targets by 2030, the company is actively pursuing various mitigation measures, including fuel conversion, hydrogen and ammonia co-firing, bio- and hydrogen power generation, and the application of Carbon Capture, Utilization, and Storage (CCUS) technologies.

Climate Change Response Framework



Risk Management

Renewable Energy Lifecycle Management System

Operating renewable energy projects involves the risk of unexpected fluctuations in power generation and facility utilization rates. To enhance efficiency in the development and operation of renewable energy facilities, KOWEPO has established a Renewable Energy Lifecycle Management System. This platform enables real-time monitoring of key factors such as facility utilization rates, power generation levels, and regulatory approval status, allowing for the identification and resolution of operational improvements. Additionally, all lifecycle data and best practices are continuously updated and shared within the platform, further optimizing project management efficiency. For example, when installing roof-mounted solar panels on highways, KOWEPO benchmarked previously registered improvement measures from the Renewable Energy Lifecycle Management System, reducing the construction period by 1.5 months and preventing water leakage. In the case of wind power generation, the large size and location constraints of the facilities limit the feasibility of direct inspections. To address this, KOWEPO has introduced digital monitoring systems that enable unmanned remote monitoring and data analysis. This technology allows for proactive risk assessment and fault diagnosis, enhancing the stability and efficiency of wind power operations.

↓ KOWEP Business Lifecycle Management System

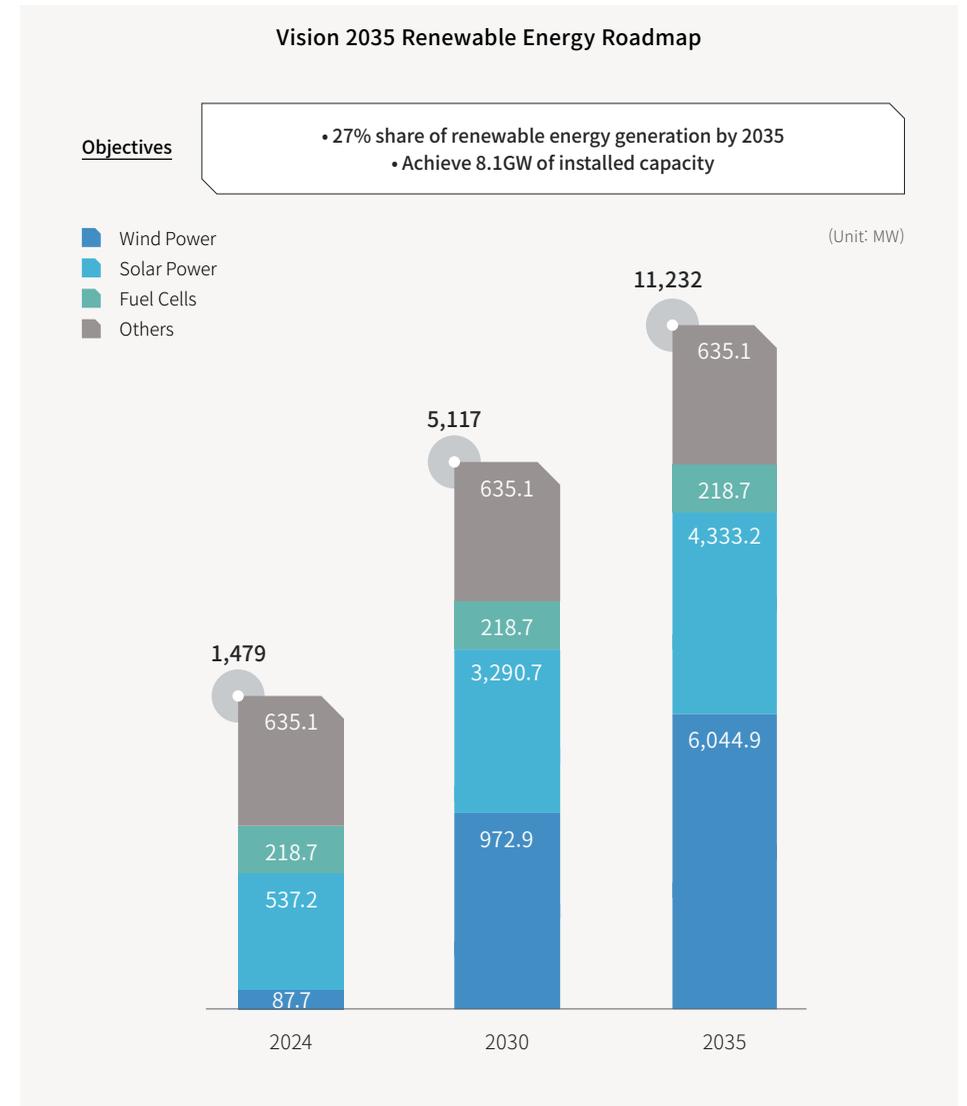
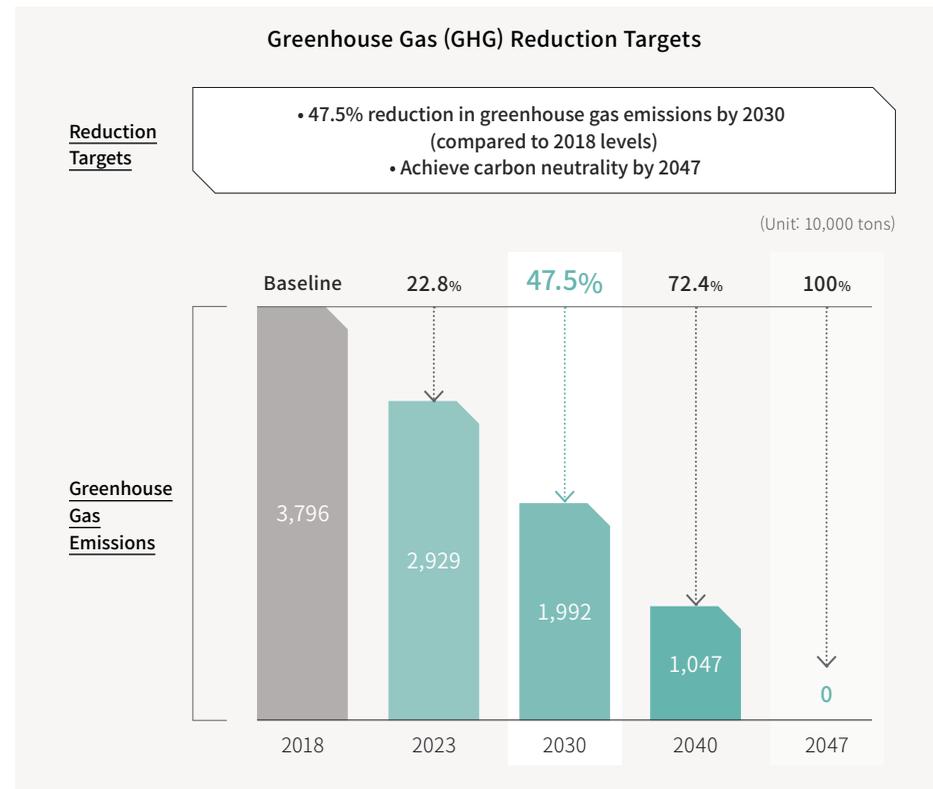


Climate Change Response

Target Management

Climate Change Response Targets

In March 2023, the government raised the Nationally Determined Contribution (NDC) target for the power generation sector from 44.4% to 45.9%. In alignment with this, KOWEPO has strengthened its climate change response goals, aiming to reduce greenhouse gas (GHG) emissions by 47.5% by 2030 compared to 2018 levels and achieve carbon neutrality by 2047. To accelerate the transition to renewable energy, including solar and wind power, KOWEPO is committed to increasing the share of renewable energy generation to 30% by 2035. To effectively track the implementation and performance of these targets, KOWEPO has established GHG reduction rates, fine dust reduction rates, and the spread of low-carbon and eco-friendly culture as Key Performance Indicators (KPIs) for systematic monitoring and management.



Climate Change Response

Performance

Energy Transition in Thermal Power Generation

LNG Combined Cycle Power Plants

To achieve carbon neutrality by 2047, KOWEPO is transitioning from coal-fired power plants to LNG combined cycle power plants. As part of this initiative, the company plans to gradually convert Units 1 to 8 of the Taean Power Plant, which account for 4,000 MW (33.6%) of its total installed capacity of 11,897 MW, to LNG fuel. In December 2022, construction began on the Gumi LNG Power Plant, which will replace Taean Unit 1. Similarly, in May 2024, construction commenced on the Gongju LNG Power Plant, set to replace Taean Unit 2. The construction of combined cycle power plants to replace Taean Units 3 and 4 is planned for Yeosu in 2025 and Asan in 2026, respectively. Additionally, KOWEPO is leading the energy transition by securing the largest number of new project sites among power generation companies. This includes plans to construct a combined cycle power plant in the Yongin National Industrial Complex to replace Taean Units 5 and 6. Through the construction of new LNG power plants, KOWEPO expects to reduce greenhouse gas emissions by 40.8% by 2030 compared to 2018 levels.

Power Plant	Unit	Target Completion Year	Development Area
Gumi Natural Gas Power Plant (Replacing Taean Unit 1)	500MW	2025	Gyeongbuk Gumi
Gongju Natural Gas Power Plant (Replacing Taean Unit 2)	500MW	2027	Chungnam Gongju
Yeosu Natural Gas Power Plant (Replacing Taean Unit 3)	500MW	2028	Jeonnam Yeosu
Asan Combined Heat & Power Plant (Replacing Taean Unit 4)	500MW	2029	Chungnam Asan
Yongin Combined Cycle Power Plant (Replacing Taean Units 5-6)	1,000MW	2032	Gyeonggi Yongin

Combined Heat and Power (CHP) Plants

A Combined Heat and Power (CHP) plant captures heat generated during electricity production and utilizes it for district heating or hot water, maximizing energy efficiency by simultaneously producing heat and power. In July 2023, KOWEPO completed and commenced operation of the Gimpo CHP Plant. This facility incorporates Doosan Enerbility's first domestically developed gas turbine technology for power generation. Additionally, the plant ensures stable fuel supply and cost reduction by adopting a direct LNG procurement strategy. To further enhance LNG supply stability, KOWEPO has established an emergency LNG response system and is training supply specialists. In 2024, the company successfully completed an 8,000-hour gas turbine demonstration run. Building on this foundation, KOWEPO plans to construct additional CHP plants in Namyangju and Asan.

	2023	2028	2029
	Gimpo CHP Plant	Namyangju CHP Plant	Asan CHP Plant

Expansion of Renewable Energy Generation

In line with the RE3530 Roadmap, KOWEPO is actively pursuing various projects to achieve a 30% share of renewable energy generation by 2035. In 2023, the company commenced commercial operations of solar power, wind power, and fuel cell facilities, while also enhancing the operational efficiency of existing facilities. As a result, renewable energy generation increased by 48.5% year-over-year, rising from 1,098 GWh (government management evaluation criteria) to 1,631 GWh. KOWEPO has adjusted its renewable energy portfolio to ensure a balanced and diversified development of renewable energy sources, expanding the share of wind power to 53.8% and solar power to 38.6%. Additionally, to optimize the operation and management of renewable facilities such as solar power and offshore wind farms, KOWEPO is investing in employee training and capacity-building to develop specialized expertise in the field.

Climate Change Response

Performance

Expansion of Renewable Energy Generation

Solar Power

KOWEPO plans to complete the Mando Solar Power Plant as part of its domestic renewable energy initiative. This project utilizes idle building space and has a capacity of 3.5 MW. Additionally, KOWEPO is advancing a large-scale solar power project in Ajban, UAE, with a generation capacity of 1,500 MW. This project will contribute to the greenhouse gas reduction targets and expansion of renewable energy generation. As the Middle East accelerates its transition to renewable energy, KOWEPO is increasing its business presence in the region. Moving forward, the company plans to expand new solar power projects in Saudi Arabia, Oman, and Kuwait.

Wind Power

In 2023, KOWEPO completed the Eco-Wind Power Project in Yeongwol, Gangwon Province, constructing eleven 4.2 MW wind turbines, thereby securing a stable share of wind power generation. Additionally, as part of its strategy to replace the coal-fired power plants in Taean, which are set to be phased out by 2032, KOWEPO is developing a 1.96 GW offshore wind power project centered in the Taean region.

Fuel Cells

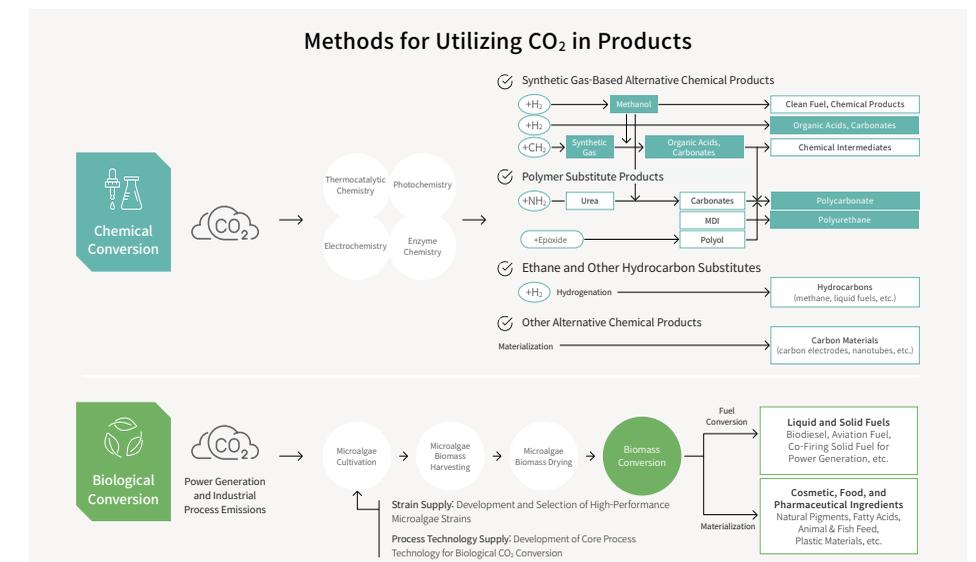
KOWEPO has the most extensive experience in fuel cell projects among domestic power generation companies. In 2021, the company launched an urban regeneration hydrogen fuel cell power project in Mungyeong, Gyeongbuk, a region with a high concentration of energy-vulnerable households. Hydrogen fuel cells generate electricity through the chemical reaction of hydrogen and oxygen, offering high energy efficiency and low noise pollution as key advantages. In 2023, KOWEPO completed 15 MW of a planned 40 MW fuel cell power plant, generating electricity and supplying energy to nearby communities through city gas pipelines for power generation. As a result, 1,700 households in energy-insecure areas received stable energy supply, leading to an annual heating cost reduction of KRW 850 million.

Creating New Business Opportunities

CCUS (Carbon Capture, Utilization, and Storage)

CCUS is a technology that captures, stores, and converts carbon dioxide (CO₂). KOWEPO has completed the construction of a high-purity CO₂ capture facility using oxygen separation technology from ambient air. This facility is capable of capturing 120,000 tons of CO₂ annually. Additionally, KOWEPO plans to design a 100 MW-scale CO₂ capture facility, and after 2030, it aims to apply CO₂ capture technology to the Gimpo CHP Plant and LNG combined cycle power plants.

CCUS Technology			
① Post-Combustion CO ₂ Capture Technology	② Oxy-Fuel Combustion CO ₂ Capture Technology	③ CO ₂ -to-Fuel Conversion Technology	④ CO ₂ Mineralization Technology
A technology that selectively separates and captures CO ₂ contained in flue gas after power plant combustion using absorbents and adsorbents.	A technology that supplies oxygen required for fuel combustion in a pure oxygen form through an oxygen carrier, enabling the fundamental separation and capture of CO ₂ during combustion.	A technology that converts CO ₂ into fuel (CO, H ₂ , CH ₄ , etc.) through electrochemical, biological, or chemical methods.	A technology that captures or directly utilizes CO ₂ generated from thermal power plants and converts it into valuable resources (such as sodium carbonate and magnesium carbonate) through carbon mineralization.



Climate Change Response

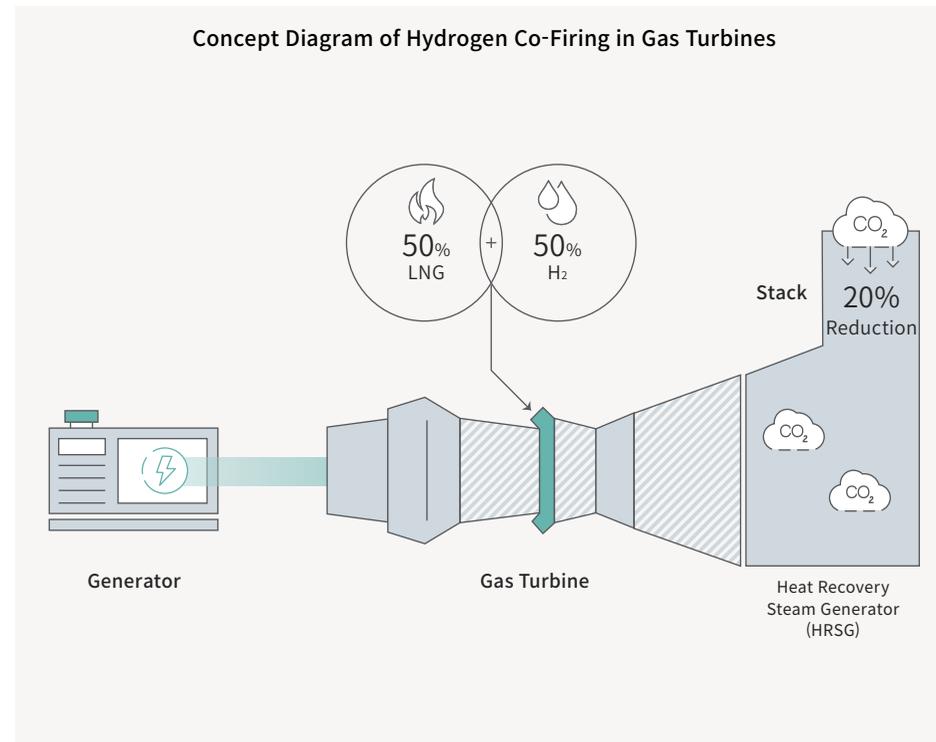
Performance

Creating New Business Opportunities

Hydrogen Co-Firing Power Generation

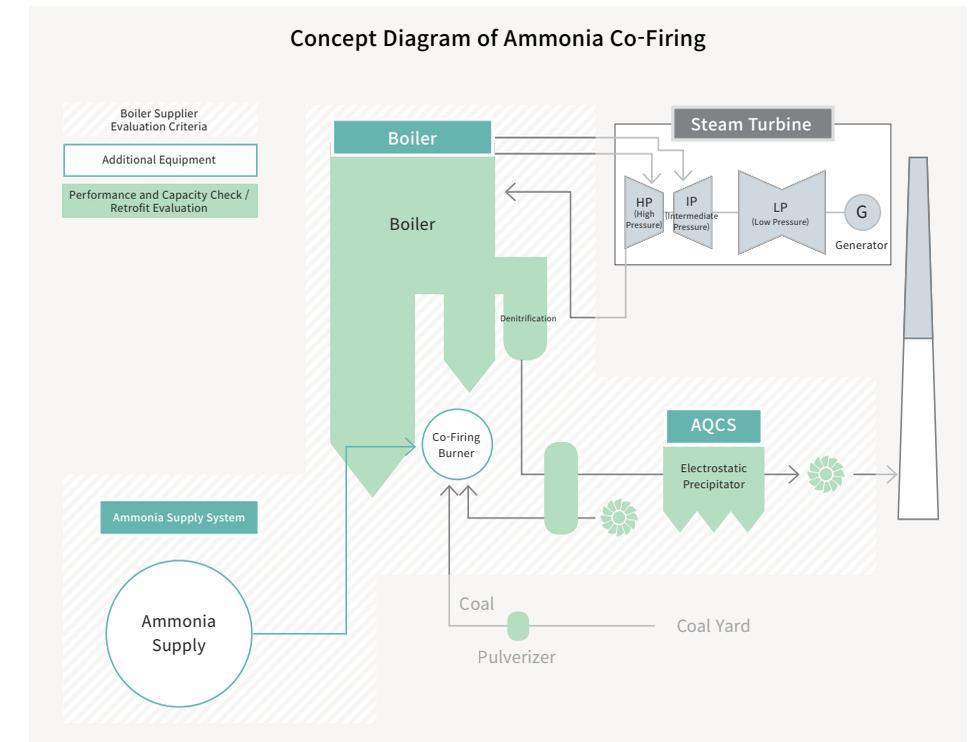
Hydrogen co-firing is a technology that blends hydrogen and natural gas for use as fuel in power generation gas turbines. When 50% hydrogen co-firing is applied, CO₂ emissions are reduced by approximately 20%. KOWEPO, in collaboration with Hanwha Impact, has been developing hydrogen co-firing technology utilizing aging gas turbines. As a result, in 2023, KOWEPO successfully achieved the world's first 60% hydrogen co-firing demonstration.

This achievement led to a 22% reduction in CO₂ emissions during power generation and a significant decrease in nitrogen oxide (NO₂) emissions, well below regulatory limits. Moving forward, KOWEPO plans to commercialize hydrogen co-firing power generation by utilizing a 150 MW gas turbine currently operating in Seo-Incheon.



Ammonia Co-Firing Power Generation

Ammonia co-firing is a method that blends ammonia with coal as a fuel source in coal-fired power generation. In line with the 2030 Nationally Determined Contribution (NDC) targets, the government plans to apply a 20% ammonia co-firing system to 24 out of 43 coal-fired power plants by 2030. KOWEPO is collaborating with five power generation companies and the Korea Electric Power Research Institute to develop ammonia co-firing technology, with plans to implement it at Taean Units 9 and 10 after 2029. To support this transition, KOWEPO conducted a feasibility study in 2023 and plans to participate in the clean hydrogen power generation bidding market starting in 2025. Alongside LNG conversion, KOWEPO aims to reduce greenhouse gas emissions by 46% by 2030 through hydrogen and ammonia co-firing initiatives.



Climate Change Response

Performance

Creating New Business Opportunities

Blue Hydrogen

Blue hydrogen is hydrogen produced from fossil fuels, where the carbon dioxide generated during the production process is captured and stored to reduce carbon emissions. In preparation for the expansion of the hydrogen market, KOWEPO aims to secure diverse hydrogen production technologies. By utilizing catalysts in the carbon reforming process, KOWEPO can produce high-value blue hydrogen, which can be used for both industrial and power generation purposes.

Blue Hydrogen Production Technology Development Plan					
Development Area	Development Details	Project Duration	Participating Institutions	Total Project Cost	
LNG Feedstock Blue Hydrogen	<ul style="list-style-type: none"> 20 kW Pilot Demonstration MW Plant Design 	April 2021 – June 2024 (39 months)	<ul style="list-style-type: none"> Korea Electric Power Research Institute (KEPRI) & Four Power Generation Companies (KOWEPO, KOEN, KOMIPO, KOSPO) 	KRW 4 billion	
Utilization of IGCC	<ul style="list-style-type: none"> Petroleum Coke-Based Blue Hydrogen 	<ul style="list-style-type: none"> Development of 3-ton/day Production Technology Design of a 30-ton/day Plant 	<ul style="list-style-type: none"> April 2021 – December 2025 (57 months) 	<ul style="list-style-type: none"> Institute for Advanced Engineering KOWEPO Korea Institute of Energy Research (in collaboration with 3 universities and 4 SMEs) 	KRW 29.5 billion
	<ul style="list-style-type: none"> High-Purity Biohydrogen 	<ul style="list-style-type: none"> 0.5-ton/day Pilot Demonstration (Purity ≥ 99.8%) Development of a 10,000-ton/year Process Design 	<ul style="list-style-type: none"> April 2021 – June 2024 (39 months) 	<ul style="list-style-type: none"> BioTech Service KOWEPO Institute for Advanced Engineering 	KRW 8.3 billion

* [LNG → Blue Hydrogen] Catalytic Reaction → Hydrogen & Carbon Separation → Purification → Hydrogen (Fuel), Carbon (Battery Anode Material)
 * [Petroleum Coke → Blue Hydrogen] Gasification Reaction → Substitution → Purification → Hydrogen (Fuel), CO₂ (Reuse)
 * [Biohydrogen] IGCC Syngas + Marine Microorganisms → Hydrogen Production → High-Purity Purification → Hydrogen (Fuel)

Green Hydrogen

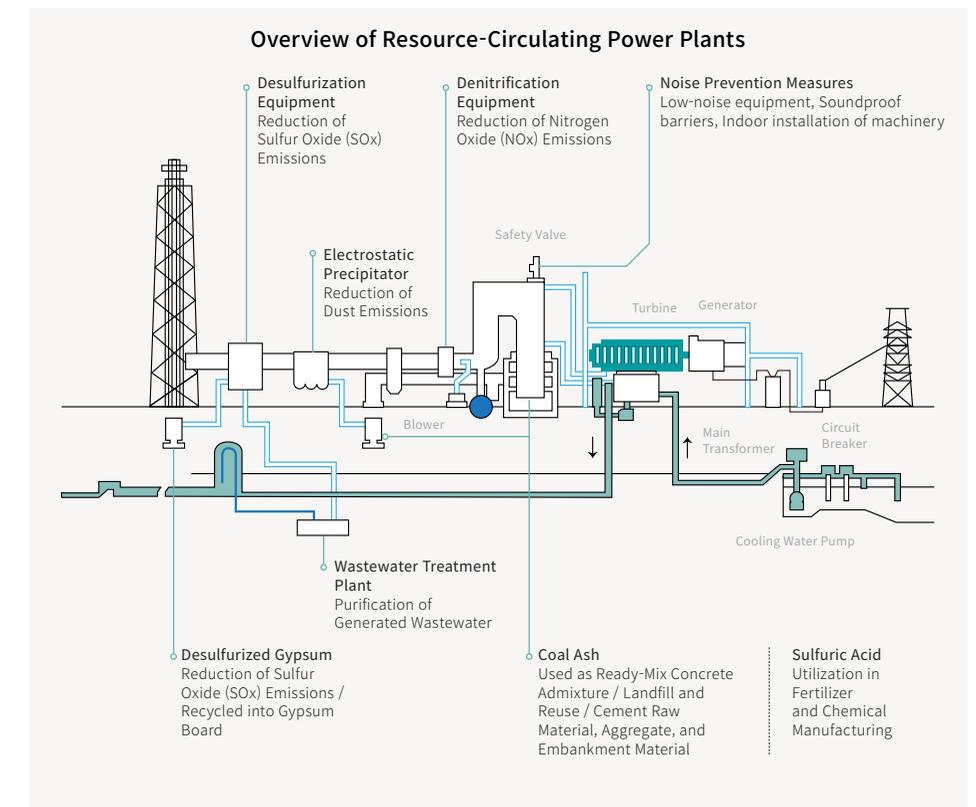
Green hydrogen is produced through electrolysis (water electrolysis: 2H₂O → 2H₂ + O₂) using electricity generated from renewable energy sources such as solar and wind power. Electrolysis technology offers key advantages, including zero pollutant emissions—as only hydrogen and oxygen are produced—and efficient energy storage, allowing electricity to be converted into hydrogen for later use. KOWEPO successfully demonstrated a 50 kW electrolysis system, directly linked to its in-house solar power facilities, achieving an annual green hydrogen production capacity of 1.3 tons. Moving forward, KOWEPO will continue to lead the hydrogen industry by developing large-scale hydrogen power generation complexes and advancing clean energy solutions.

Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Framework

Resource Circulation System

As a state-owned power generation company, KOWEPO has established its own resource circulation system to lead the transition toward a circular economy. To support this initiative, the company has identified various research projects and business models that promote sustainable resource management. In particular, KOWEPO is strengthening its capabilities and commercialization efforts to recycle byproducts generated during power generation, such as coal ash and desulfurized gypsum. Furthermore, in advancing toward a circular economy, KOWEPO is actively working to address environmental blind spots, collaborate with SMEs and local communities, and foster mutual growth through sustainable partnerships.

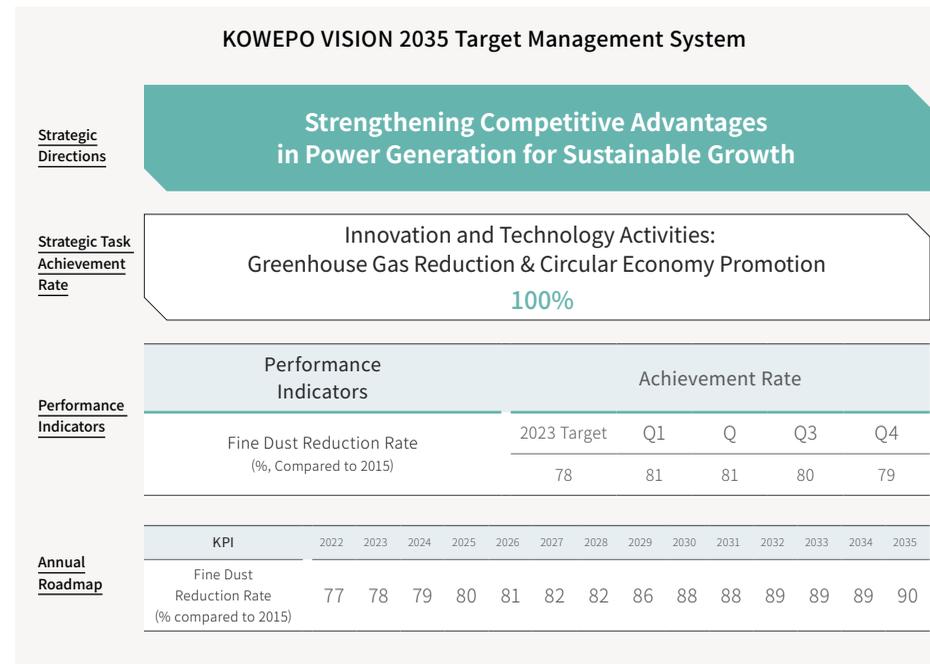


Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Target Management

Pollutant Reduction Targets

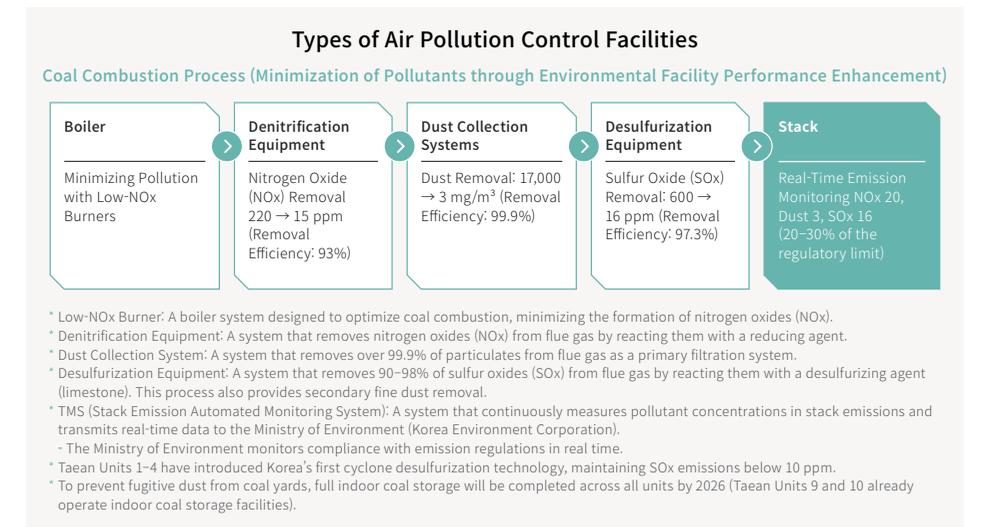
Coal-fired power plants generate fine dust emissions during the electricity production process. To prevent air pollution, KOWEPO has set ambitious fine dust reduction targets, aiming for a 78% reduction by 2023 (compared to 2015 levels), 88% by 2030, and 90% by 2035. To achieve these targets, KOWEPO monitors fine dust emissions annually and integrates fine dust reduction performance into internal performance evaluations, ensuring systematic management and continuous improvement.



Performance

Air Pollutant Emissions and Reduction

To minimize air pollutant emissions, KOWEPO has installed and operates air pollution control facilities at its sites, including denitrification equipment, desulfurization equipment, and electrostatic precipitators. In 2022, KOWEPO implemented Fast SCR (Selective Catalytic Reduction) technology at Seoinscheon Combined Cycle Units 5 and 6, enabling early-stage nitrogen oxide (NOx) reduction. In 2023, the company enhanced nitrogen oxide removal efficiency at Taeon Unit 8, a coal-fired power plant, by adding an additional catalyst layer to its denitrification system (from 2 to 3 layers), improving NOx removal efficiency from 67% to 93%. As a result, KOWEPO achieved a 78.6% fine dust reduction rate, exceeding its original target by 0.6%. KOWEPO became the first power generation company to participate in the government-led 'Smart Integrated Environmental Management System' initiative, aimed at enhancing the efficient management of air pollutants. This project enables real-time monitoring of air pollutant emissions and prevention facilities, allowing for prediction and analysis of pollutant generation to determine optimal operating conditions. In 2022, KOWEPO conducted research on predicting air pollutant concentrations by analyzing the correlation between power plant operating data and emission levels. Building on this, in 2023, the company collaborated with digital technology specialists to develop dedicated algorithms for Taeon Units 9 and 10, further enhancing its pollution management capabilities. Additionally, KOWEPO operates a seasonal management system from January to March, during which power plant output is limited or temporarily halted when fine dust levels are high. The company also partners with Chungcheongnam-do to manage an integrated village air monitoring system, enabling real-time fine dust tracking in surrounding areas—demonstrating its continued commitment to air quality preservation.

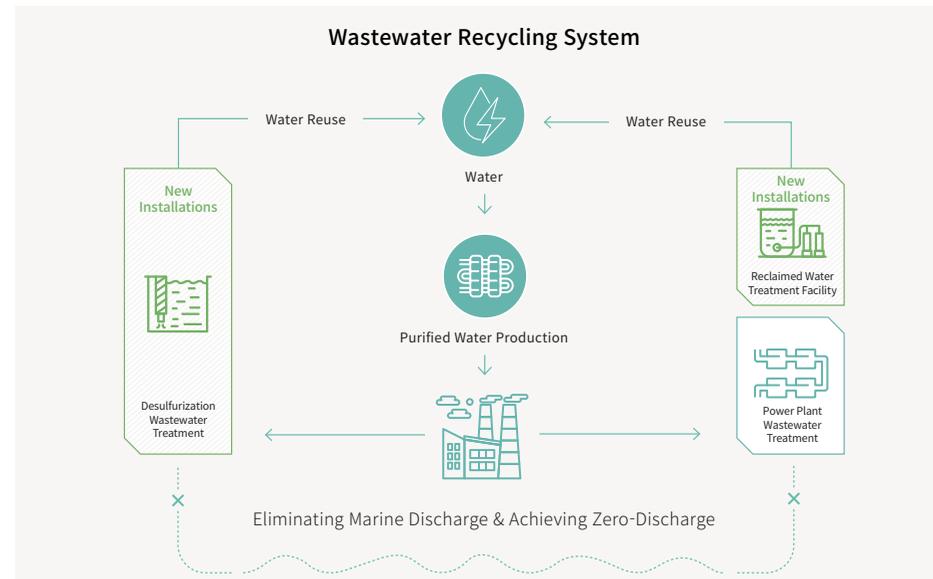


Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Performance

Wastewater Recycling

KOWEPO operates a wastewater recycling system to ensure a stable water supply and enhance water use efficiency. In particular, the company has established a zero-discharge system at Taean Units 1–8, applying a desulfurization wastewater evaporation and concentration method, which crystallizes pollutants while recycling water for power generation. Additionally, KOWEPO operates comprehensive wastewater treatment facilities and desulfurization wastewater treatment systems at all power plants. To further increase water reuse rates, the company has introduced reclaimed water systems that process and recycle used water. Moving forward, KOWEPO is committed to eliminating marine wastewater discharge and achieving a fully zero-discharge system.



Water Reuse Rate

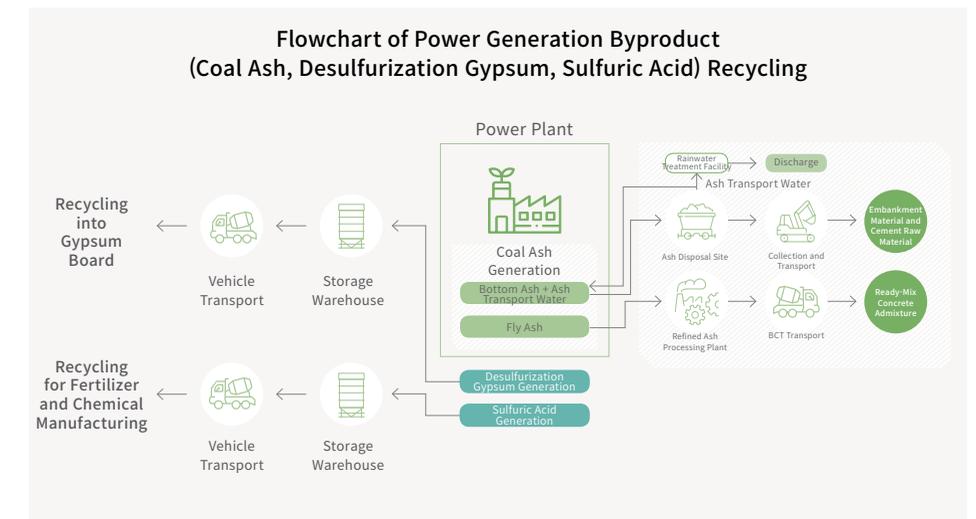
Category	Unit	2021	2022	2023
Reuse Rate	%	50.5	65.4	63.7
Reused Water Volume	ton	1,165,983	1,562,107	1,524,936
Wastewater Treatment Volume	ton	2,310,391	2,388,300	2,393,825

Implementation of a Resource-Circulating Power Plant

KOWEPO operates a resource-circulating power plant to reduce waste generation and promote recycling at its facilities. In particular, the company is actively pursuing various initiatives to recycle byproducts from power generation, creating added value while enhancing sustainability.

Expansion of Byproduct Recycling in Power Generation

Among power generation byproducts, coal ash is a primary byproduct, accounting for approximately 10% of coal consumption. It is categorized into bottom ash and fly ash. Bottom ash is first landfilled at waste disposal sites and later repurposed as embankment material or cement raw material. Fly ash undergoes refinement at processing plants and is sold as an additive for ready-mix concrete. Additionally, desulfurization gypsum, a byproduct generated during the removal of sulfur oxides (SOx), a major air pollutant, is entirely utilized as raw material for gypsum board. Furthermore, sulfuric acid, a byproduct from Korea's only Integrated Gasification Combined Cycle (IGCC) power plant, is recycled as a raw material for fertilizer and chemical manufacturing.



Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Performance

Implementation of a Resource-Circulating Power Plant

Expansion of Byproduct Recycling in Power Generation

2023 Power Generation Byproduct Recycling Status			
Category	Generation (thousand tons)	Recycling Volume (thousand tons)	Recycling Rate (%)
Coal Ash	1,091	1,009	92
Desulfurized Gypsum	227	227	100
Sulfuric Acid	2.6	2.6	100

Technology Development and Commercialization for High-Value Recycling of Power Generation Byproducts

KOWEPO is actively promoting various research initiatives in collaboration with industry, academia, and research institutions to expand the high-value recycling of power generation byproducts. Through these efforts, the company is developing new technologies and continuously expanding recycling applications. The developed technologies are transferred to small and medium-sized enterprises (SMEs) and in-house ventures, supporting their commercialization and contributing to sustainable industrial growth.

Research Project Performance		
Collaborating Institution	Development Details	Duration
Korea Institute of Ocean Science & Technology	Development of Marine Structures Using Recycled Coal Ash for the Green New Deal on Resource Circulation	January 2021 – December 2022
Korea National University of Transportation	Construction Materials (Fine Aggregate) Using Coal Gasification Molten Slag Development and Commercialization	September 2017 – September 2019
Korea Institute of Geoscience and Mineral Resources	Artificial Basalt Using Landfilled Ash (Building Materials, Stepping Stones, etc.) Development of Manufacturing Technology	July 2017 – July 2018
Sambo Engineering	Development of Mineral Fiber Manufacturing Technology Using Brown Gas	November 2016 – February 2018
HJ Enterprise – Hanbat National University	Development of Interior Building Boards Using Coal Ash	May 2016 – May 2017
Kunsan National University	Development of Utilization Technology for Landfilled Ash as Road Excavation Backfill Material	August 2015 – August 2018
Chungnam Province – F1 Tech – KOWEPO	Development of Coal Ash-Based Filler for Asphalt Pavement	August 2015 – July 2017
Institute for Advanced Engineering	Development of Geopolymer Production Technology Using Coal Gasification Molten Slag	June 2015 – May 2018

Development of Coal Ash-Based Wave Dissipation Blocks

With the increasing intensity of typhoons due to climate change, demand for high-performance wave dissipation blocks* at ports and coastal areas is rising. However, most high-performance wave dissipation block manufacturing technologies are owned by Japan, requiring high royalty payments for production. To achieve technological independence in high-performance wave dissipation block manufacturing while promoting the recycling of power generation byproducts, KOWEPO collaborated with the Korea Institute of Ocean Science & Technology to develop marine structures, including wave dissipation blocks and artificial reefs, using coal ash as aggregate. The newly developed Korean Resource Circulation Wave Dissipation Block (K-Block) successfully demonstrated its commercial production feasibility and was subsequently transferred to small and medium-sized enterprises (SMEs) for commercialization.

* Wave dissipation blocks are structures installed along coastal frontlines to protect harbors and other infrastructures from high waves. The widely used tetrapods are large but have a low stability coefficient, leading to their replacement with high-performance blocks.

Product Performance Assurance

30-ton Tetrapod (TTP)

Stability Coefficient: 6-8



→

20-ton K-Block

Stability Coefficient: 12 or higher



The 20-ton K-Block can replace the 30-ton Tetrapod (TTP)



↑ Coal Ash Recycling Sofa Block (K-Block) Production Demonstration

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

- Governance
- Advancing Ethical Management
- Risk Management

Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Performance

Enhancing Biodiversity and Restoring Ecological Health

KOWEPO is minimizing the impact of waste heat discharge on marine ecosystems by utilizing waste heat generated during power generation. At Pyeongtaek Thermal Power Complex Division, waste heat is repurposed as a heat source for LNG vaporization in collaboration with Korea Gas Corporation, effectively reducing its environmental impact. Additionally, KOWEPO is actively engaged in a project to reintroduce the endangered species, Ranunculus katusensis (Mae-hwa-mareum), into local ecosystems. This plant, which naturally thrives in coastal rice paddies along the West Coast, has been designated an endangered wild plant due to habitat destruction caused by road construction and land development. Through its Endangered Species Conservation Project, KOWEPO aims to preserve biodiversity and maintain regional ecological stability.

↓ Planting Event for Endangered Wild Plant (Water Buttercup)



Enhancing Industrial Safety and Health

Framework

Safety Management Framework

KOWEPO has established and is implementing its 'Safety Culture 2035' strategic framework. This framework aims to enhance the company-wide safety culture by building a sustainable safety monitoring system and strengthening its change response and long-term forecasting capabilities. Under the vision of 'Creating KOWEPO's Future through Collaborative Safety Management,' the company has established four strategic directions: Development of Monitoring Tools, Strengthening Adaptive Response, Establishing Organizational Learning, and Building Long-Term Forecasting Systems. These directions have been further specified into 12 detailed objectives and corresponding action plans. Additionally, the 'Safety and Health Management Policy' has been publicly announced and shared with all employees and stakeholders.

Safety and Health Management Policy

Safety Culture 2035 Strategic Framework

Vision

Safety Together, Create Future
(Creating KOWEPO's Future through Collaborative Safety Management)

CEO Policy

Creating a workplace that prioritizes life and safety, grounded in respect for humanity

Goals

Achieving Zero Industrial Accident Rate
(Attaining a zero-accident workplace through the establishment of an accident prevention system and a systematic safety management framework)

KPI

2023 - 2027 WP Safety Culture Index: 84.5 Leading Safety Company in Korea	2028 - 2030 WP Safety Culture Index: 86.0 Leading Safety Company in Asia	2031 - 2035 WP Safety Culture Index: 88.5 Leading Safety Company in the World
--	---	--

Strategic Directions

Development of Monitoring Tools [Monitoring]	+ Strengthening Adaptive Response [Response]	+ Establishing Organizational Learning [Learn]	+ Building Long-Term Forecasting Systems [Anticipation]
--	--	--	---

Action Plans

- | | | | |
|---|--|---|---|
| <ol style="list-style-type: none"> Establishing a Quantitative Safety Culture Assessment System Conducting Self-Diagnosis of the Safety and Health Management System Implementing and Institutionalizing WP's Safety Rating System for Partner Companies | <ol style="list-style-type: none"> Redefining Roles and Responsibilities (R&R) within the Safety Organization Developing In-House Safety Experts Comprehensive Revision of the Safety and Health Manual | <ol style="list-style-type: none"> Developing a Safety Knowledge Measurement System Expanding the Development of Safety Learning Content Enhancing the Activation of Safety Learning Organizations | <ol style="list-style-type: none"> Establishing an Integrated Safety Culture Platform Defining a Long-Term Forecasting Process Formulating WP Safety and Health Guidelines |
|---|--|---|---|

Enhancing Industrial Safety and Health

Performance

Enhancing Facility Safety through the Implementation of a Smart Safety Management System

KOWEPO is committed to preventing facility-related safety issues, ensuring that all employees can work in a safe environment. To achieve this, in 2023, KOWEPO established and implemented a smart safety management system incorporating AI-based safety video analysis, remote monitoring of hazardous gases in confined spaces, and real-time heavy equipment location tracking. As a result of these enhanced safety efforts, KOWEPO has achieved zero serious accidents for five consecutive years and maintained a fatality rate (per 10,000 workers) of 0% for five consecutive years. Additionally, the company has been awarded the Global Standard Safety Management Award for five consecutive years.

Implementation Status of the Smart Safety Management System		
System Name	Description	Performance
AI-Based Safety Video Analysis System	<ul style="list-style-type: none"> Monitoring on-site personnel using a mobile CCTV system AI deep learning technology analyzes CCTV footage to detect unsafe worker behaviors and continuously monitor abnormal situations 	<ul style="list-style-type: none"> Minimization of human surveillance personnel Enables immediate response to safety incidents
Remote Monitoring of Hazardous Gases in Confined Spaces	<ul style="list-style-type: none"> Utilizing KOWEPO's dedicated application to remotely monitor hazardous gases in confined spaces Enabling cross-inspection and real-time situation sharing among multiple personnel 	<ul style="list-style-type: none"> Enhancing convenience through application-based remote monitoring Expanding hazard prevention with multi-layered monitoring
Real-Time Heavy Equipment Location Tracking System	<ul style="list-style-type: none"> Integrated management of real-time heavy equipment location data through an IoT platform-based control system 	<ul style="list-style-type: none"> Minimization of on-site personnel such as signallers and guides during heavy equipment operations to prevent safety accidents in advance

Strengthening Safety Management Expertise

KOWEPO is committed to fostering a skilled workforce capable of identifying and resolving risk factors by actively promoting its in-house Risk Assessment Expert System. To this end, KOWEPO supports annual in-house expert training programs (basic and advanced levels), and the number of in-house experts has steadily increased from 48 in 2022 to 79 in 2023, and further to 175 in 2024. Notably, these experts identified and rectified a total of 105 non-conformities during the self-assessment of the regular risk assessments at business sites in 2024, thereby contributing to the improvement of on-site risk management standards.

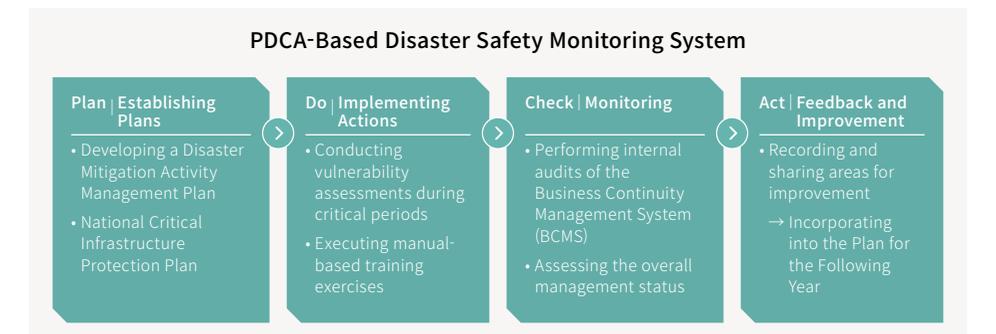
Self-Regulated Safety Prevention System

In alignment with the Ministry of Employment and Labor's Serious Accident Reduction Roadmap, KOWEPO is dedicated to establishing a self-regulating prevention system centered on risk assessment to prevent serious industrial accidents. Each year in the first half, KOWEPO conducts regular risk assessments involving all employees, including those from partner companies, to identify workplace hazards and risks and implement improvement activities to mitigate them. Furthermore, all work within KOWEPO's sites undergoes pre-work ad-hoc risk assessments and a work permit system to ensure safety beforehand. Notably, the 750 types of standard risk assessment models developed since 2023 have significantly contributed to on-site risk management.

Enhancing Disaster Safety Management

Establishing a Disaster Safety Management System

As climate change intensifies, the physical risks faced by businesses are becoming increasingly severe. In response, KOWEPO has established a disaster safety management framework based on an analysis of disaster case studies and the specific characteristics of its operations. The disaster safety management framework aims to minimize human and property damage by establishing an on-site operational disaster management system. Focusing on three strategic directions – enhancing adaptability to changing disaster environments, expanding a robust disaster preparedness safety network, and implementing disaster prevention measures that are tangible to the public – this framework includes six detailed action plans. Additionally, a PDCA (Plan-Do-Check-Act) monitoring system serves as the foundation for managing and executing a structured implementation process.



Enhancing Industrial Safety and Health

Performance

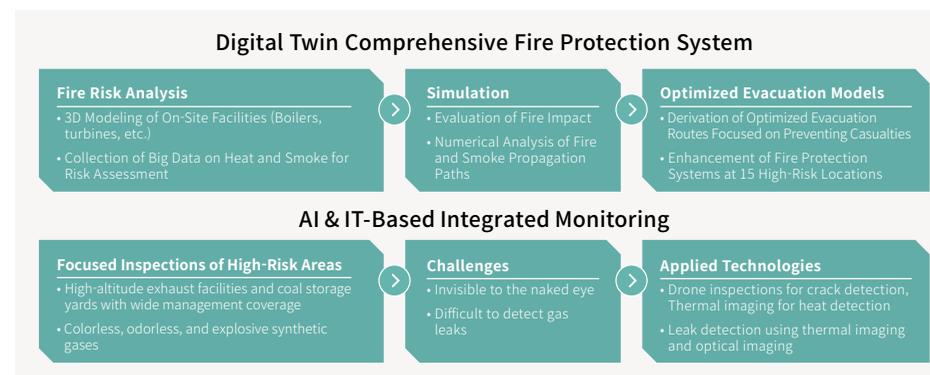
Enhancing Disaster Safety Management

Proactive Disaster Prevention Measures

KOWEPO is committed to preparing for unforeseen disasters and ensuring a swift response when they occur. To address climate-related risks such as typhoons and heavy rainfall, the company has revised its on-site response action manual for the power sector and adjusted its internal crisis alert levels to be more stringent than those of the Korea Meteorological Administration. Additionally, offline manual training is conducted for each department, with training materials also developed into online content for continuous dissemination. This approach ensures that employees internalize the procedures and can effectively implement them in the field. To prevent accidents in energy storage systems (ESS), where fires have become increasingly frequent, KOWEPO has also introduced a dedicated fire management guideline and is implementing specific countermeasures to enhance safety.

Enhancing Disaster Preparedness through IoT Safety Management Systems

KOWEPO has established a systematic disaster preparedness framework by leveraging IoT technology. In response to the increasing frequency of natural disasters and fire incidents, the company has implemented a Digital Twin Comprehensive Fire Protection System to manage fire risks in a phased approach. Additionally, an AI and IT-based integrated monitoring system has been introduced, alongside drones equipped with thermal imaging cameras to remotely inspect fire-prone areas that are difficult to access. As a result of these initiatives, KOWEPO has achieved the highest rating for two consecutive years in the government's three major disaster management evaluations (Central, Safety Korea Training, and National Critical Infrastructure). Furthermore, the company has been recognized as an Outstanding Disaster Reduction Enterprise for five consecutive years in 2023. KOWEPO has also established a business continuity system to prepare for unexpected incidents, maintaining ISO 22301 (Business Continuity Management System) certification for 10 consecutive years.



Partner Company Safety Management

Hosting the 'Safety Innovation Council' with Partner Companies

Since 2021, KOWEPO has been holding the 'Safety Innovation Council' every quarter, bringing together the CEO of KOWEPO, executives from partner companies, worker representatives, and safety management officers to discuss safety issues and innovative measures. In the first half of 2024, a total of 75 participants from KOWEPO and 14 partner companies attended the council meeting. The session included sharing safety management updates, discussing the WP-Safety Rating System evaluation plan for partner companies, presenting safety-related agendas, and conducting a Q&A session. At the subsequent Safety and Quality Coexistence Festival, both outstanding partner companies and partner firms and workers who demonstrated excellence in quality initiatives were recognized and awarded. Through these engagement activities, the CEO directly identifies and addresses on-site issues faced by partner company workers, fostering a collaborative approach to workplace safety and quality improvement.

Implementation and Management of the WP-Safety Management Rating System for Partner Companies

KOWEPO is committed to fostering a shared sense of safety awareness and encouraging active participation in safety enhancement by integrating partner company evaluations with an employee compensation system. Since 2021, KOWEPO has implemented the WP-Safety Management Rating System for resident partner companies, assessing their safety management frameworks and supporting the development and execution of improvement plans based on their ratings. Over three years of implementing the WP-Safety Rating System since 2021, KOWEPO has analyzed accumulated data to identify and enhance areas for improvement in the evaluation framework. Based on these refinements, in 2023, the company conducted 27 one-on-one safety consultations tailored to each partner company's safety rating. Additionally, KOWEPO has launched a pilot consulting program for small and medium-sized partner companies with fewer than 50 employees, which were not included in the WP-Safety Rating System due to insufficient internal safety management capacity. As part of this initiative, five companies were selected through a participant evaluation process. The consulting program provided risk assessment expertise, on-site improvement support, and assistance in establishing independent safety management capabilities, helping small, non-resident companies strengthen their own safety management frameworks.

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Appendix



Enhancing Industrial Safety and Health

Performance

Partner Company Safety Management

Strengthening the Responsibility of Project Owners in Construction Sites

KOWEPO is advancing the construction of new power plants to ensure a stable power supply and expand the national distribution of renewable energy. However, due to the nature of construction projects, there is an inherent risk of safety accidents involving supplier employees. To mitigate these risks, KOWEPO is implementing various measures. The company conducts regular safety inspections and risk assessments utilizing safety experts and eliminates workplace hazards through unannounced safety inspections led by the headquarters. In particular, for the Gumi Natural Gas Power Plant, scheduled for completion in 2025, KOWEPO has conducted a comprehensive analysis of potential accidents that may occur during the design, construction, and operation phases. As a result, the company has improved 51 safety design conditions related to falls and trips and implemented 121 risk mitigation measures. Moving forward, KOWEPO plans to publish the ‘Project Owner’s Safety and Health Management Manual’ to systematically manage the responsibilities of project owners. Additionally, the company will establish a short- and mid-term roadmap for construction safety and health training completion, enhancing the professional competency of personnel responsible for construction safety management.

Expanding Safety Culture and Providing Psychological Support

KOWEPO has developed online learning content on safety regulations for temporary workers in high-risk areas of power plants. Additionally, the company has produced animated content covering topics such as disaster prevention and safety exercises, helping workers learn and internalize essential safety practices. Furthermore, KOWEPO has analyzed high-risk periods for serious accidents and, based on these findings, implemented the 3·3·3 Safety Campaign to prevent serious accidents. This initiative strengthens long-term risk forecasting systems and fosters a stronger internal safety culture.



↑ Specifics of the 3·3·3 Campaign

In addition, KOWEPO supports workers in alleviating job-related stress through customized in-house counseling services (‘Mind Talk Talk’ EAP) and occupational health psychological care programs. To improve awareness and increase participation in the Employee Assistance Program (EAP), KOWEPO conducted a promotional campaign across all business sites. As a result, in 2023, the number of workers classified as high-risk for work-related stress decreased by 7.6 percentage points compared to 2022, while the EAP satisfaction score reached 4.9 out of 5, demonstrating its effectiveness.

Enhancing Employee Value and Engagement

Framework

Talent Management Strategy

KOWEPO is committed to comprehensive talent management, focusing on strengthening employee expertise and enhancing well-being through initiatives in recruitment, human resources, and work-life balance support. To achieve this, the company selects individuals with global competencies, a spirit of challenge, and strong organizational capabilities through a fair and transparent process. Additionally, it provides employee capacity-building programs to develop expertise in energy transition and new business development. To help employees maintain a work-life balance, KOWEPO operates various welfare programs while actively incorporating employee feedback to foster a people-centered corporate culture. At the same time, the company strengthens labor-management communication to safeguard employee rights.

Risk Management

Labor-Management Conflict Management System

KOWEPO has improved its labor-management communication channels and established an internal system for structured conflict management to prevent disputes and enhance mutual understanding. As a practical resolution channel, the company operates the ‘Labor-Management Joint TF for Enhancing Institutional Fairness’, which has identified 18 improvement initiatives and corresponding solutions across three key areas: payroll, HR and welfare, and labor relations. To strengthen communication, two interim briefing sessions were held between labor and management. Additionally, KOWEPO has implemented a four-stage conflict management process consisting of conflict identification, risk assessment, conflict resolution, and monitoring, ensuring a systematic approach to labor-management relations.

Target Management

Employment Goals and Workforce Development

KOWEPO manages relevant indicators to expand employment and enhance job diversity. To create quality jobs, KOWEPO has set a target of creating approximately 17,000 direct jobs by 2035. Furthermore, to provide job opportunities and ensure equal opportunities, the company manages targets specifically for: hiring young unemployed individuals, mandatory employment of persons with disabilities, preferential hiring of veterans, and compliance with guidelines for the protection of outsourced workers. In addition, KOWEPO has improved its human resource development system by analyzing the management environment and employee needs. To cultivate adaptive experts and establish a digital-based work environment, KOWEPO aims to actively develop professionals with the highest level of technical expertise and quality assurance through expanded opportunities for professional development and the development of educational programs.

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

- Enhancing Industrial Safety and Health

- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

- Governance
- Advancing Ethical Management
- Risk Management

Enhancing Employee Value and Engagement

Performance

Recruitment

Expansion of Employment Programs and Creation of Socially Equitable Jobs

KOWEPO prioritizes workforce diversity and social equity by actively recruiting women, vulnerable groups, national veterans, young professionals, and high school graduates while also strengthening its regional talent recruitment system. In 2023, the company exceeded both legal requirements and internal targets by hiring 27.8% women, 5.6% persons with disabilities, 11% national veterans, and 55.6% regional talent among its total full-time hires.

Fair and Transparent Recruitment Process

KOWEPO is strengthening a job seeker-centric recruitment system to enhance fairness, transparency, and efficiency in hiring. To improve candidate convenience, the company has expanded pre-recruitment information, including job fairs and updates on recruitment policy changes. Additionally, KOWEPO has adjusted document submission deadlines and costs to reduce the burden on applicants. KOWEPO provides detailed feedback reports to final interview candidates, helping them understand their interview results and improve their job-seeking skills. Additionally, the company has refined the written test process by aligning it with job descriptions, ensuring that interviews focus on job-specific competencies to enhance both talent matching and evaluation differentiation. To further ensure transparency in recruitment, KOWEPO has introduced an interview observation program for interested participants among experiential interns. Moreover, the company has established a Recruitment Review Committee, where external members make up the majority, reinforcing fair hiring practices. As a result of these initiatives, KOWEPO recorded zero violations in regular employment practices and zero cases of hiring irregularities in the monthly blind recruitment monitoring conducted by the Ministry of Employment and Labor. Additionally, the blind recruitment satisfaction score among new employees increased from 93.1 in 2022 to 96.2 in 2023.

Evaluation and Compensation

Since its establishment, KOWEPO has continuously incorporated government policies and external environmental changes to develop and operate a rational compensation system. In 2022, the company introduced a job-based pay system through a labor-management agreement and has since been actively working to strengthen a job-centered compensation framework. KOWEPO is advancing wage negotiations by expanding both job-based and performance-based pay, reinforcing a meritocratic and performance-driven culture. In 2023, the company

enhanced employee acceptance of these changes through labor-management workshops, job evaluation satisfaction surveys, and the Fair Compensation Task Force (TF). As a result, KOWEPO successfully reached a labor-management wage agreement to further solidify its job-centered compensation system. As a result, the proportion of job-based pay within the base salary for all employees increased from 22.6% in 2022 to 24.3% in 2023. Additionally, KOWEPO has contributed to the expansion of job-centered compensation systems by presenting best practices in job-based pay at government-led forums, publishing case studies on compensation system reforms, and being selected as a benchmarking model for other public institutions to share its expertise and know-how.

Labor-Management Relations

Establishment and Operation of a Labor-Management Consultation System

KOWEPO has developed a labor-management development strategy and framework to foster a culture of innovation, change, and mutual growth based on legal principles and fairness. KOWEPO has conducted legally mandated negotiations through official labor-management bodies such as the Labor-Management Council, Industrial Safety and Health Committee, Grievance Handling Committee, and Wage & Collective Bargaining Negotiations. In addition to these formal negotiations, the company has proactively established joint labor-management task forces, including the Working Conditions Improvement TF, Workforce Transition TF for Energy Transition, and Labor-Management-Safety TF, to identify and implement various improvement initiatives. As a result, KOWEPO has successfully achieved 100% compliance with government innovation policy requirements, including addressing labor inspections by the Ministry of Employment and Labor.

KOWEPO has also advanced joint labor-management ESG initiatives, developing and implementing action plans on key ESG issues such as awareness improvement, environmental protection, partner company support, safety enhancement, employee participation in management, and human rights respect. These efforts have provided an opportunity for labor and management to collaborate in establishing a company-wide ESG culture. Recognized for its new labor-management culture strategy and implementation, KOWEPO has been certified as an Excellent Labor-Management Institution for two consecutive years.

Enhancing Employee Value and Engagement

Performance

Labor-Management Relations

Strengthening Labor-Management Communication Channels

KOWEPO has undertaken initiatives to improve communication channels for more effective labor-management dialogue. By analyzing existing communication channels, the company identified areas for improvement across participation, problem-solving, and prevention. Actively incorporating feedback, KOWEPO has enhanced the quality of communication in a way that employees can tangibly experience. In 2023, KOWEPO operated WP-POST, an anonymous communication channel utilizing Google Padlet, uncovering 223 cases of internal unfair practices. Additionally, the company supported a TO-BE consulting group led by younger employees to identify 18 improvement tasks across four key areas, including misuse of internal systems and unfair workplace practices. As a result, the employee communication index in the 2023 staff survey improved from 4.25 to 4.31, demonstrating enhanced labor-management communication.

Improving Working Conditions Through Cooperation-Based Collective Agreements

KOWEPO is committed to enhancing employees' quality of life by pursuing balanced revisions to collective agreements that uphold legal and ethical principles. To this end, the company has rationally addressed key labor issues, such as the need to review and revise collective agreement provisions in response to strengthened external audits. Additionally, improvements have been made in safety, work-life balance, and tailored psychological care, enhancing overall working conditions. These labor-management collaboration efforts led to KOWEPO being awarded the 2023 Public Institution Labor-Management Innovation Grand Prize.

Key Issues	Description	Performance
Review and Revision of Collective Agreement Provisions in Response to Strengthened External Inspections	<ul style="list-style-type: none"> Wage Increase of 1.7% in Compliance with Government-Approved Rate Revision of Wage Standards for Occupational Injury Leave in Accordance with the Industrial Accident Compensation Insurance Act Adjustment of Long-Term Leave Period to Two Years Change in Performance-Based Bonus Calculation Month to 1/12 of the Annual Average Base Salary Modification of Wage Standards for Position Suspension to 30-80% of Base Salary 	Completion of a Flawless Collective Agreement in Compliance with Government Guidelines and Legal Requirements
Increasing Interest in Work-Life Balance	<ul style="list-style-type: none"> Paid Maternity Protection Time of Two Hours Per Month Extension of Multiple Birth Maternity Leave from 10 to 15 Days Adjustment of Childcare Leave Criteria from Three Days for Three Children to Two Children 	System Enhancements to Improve Satisfaction in This Area
Need for Internal Improvements Due to Indiscriminate Use of Sick Leave	<ul style="list-style-type: none"> Clarification of Reasons When Applying for Sick Leave Establishment of Clear Usage Standards for Union Activities by Full-Time Employee Representatives 	Organizational Culture Enhancement Through System Improvements Based on Communication via Formal and Informal Channels, Such as Negotiations and Meetings

Training

Operation of Skill-Based Training Programs

To respond to the rapidly changing business environment driven by energy transition and digitalization, KOWEPO is fostering adaptive experts who demonstrate high receptivity to their surroundings and a low resistance to new technologies. To cultivate adaptive experts, KOWEPO has enhanced its skill-based expert development system, redefining 54 technical competencies across eight fields. Additionally, existing training programs have been restructured into modular competency-building programs, resulting in 231 skill development courses. This approach enables employees to rapidly and flexibly develop expertise and seamlessly transition roles in response to evolving business environments. In 2023, a total of 66 employees were reassigned to new power generation projects, including alternative and hybrid power plants, while 6 employees transitioned to hydrogen power and other future core businesses. Additionally, 7 employees were redeployed to investment management and business administration improvements after completing the training programs.

Development and Operation of Employee-Centered Training Programs

KOWEPO actively gathers employee feedback on training methods and subject areas to enhance its educational programs. Through employee surveys, the company identified key needs, including building a digital-friendly infrastructure, providing in-person onboarding for employees hired during the COVID-19 period, and strengthening hands-on simulation training. These insights were incorporated into the training programs. As a result, overall training satisfaction in 2023 reached 90.5 points, marking a 2.7-point increase from the previous year, while the training completion rate rose to 97.5%, a 2.4 percentage point increase year-over-year.

Expansion of Digital Transformation Training

KOWEPO is committed to enhancing work efficiency and productivity by fostering a digitally driven work environment. To this end, the company has selected 90 digital innovators who are actively developing solutions for digital workplace transformation. Additionally, KOWEPO supports specialized seminars, research projects, and other new technology innovation initiatives to facilitate the expansion of digital workflows. To further incentivize digital transformation, KOWEPO has established a reward system, including innovation grade certification for high performers, mileage-based incentives, qualification registration, and CEO-awarded commendations. Moreover, for general employees, the company has implemented a virtual reality-based facility management training platform, enabling seamless adaptation to digital transformation in the business environment. Training programs on digital technologies, such as ChatGPT utilization for operational efficiency, are also being provided.

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health

→ Enhancing Employee Value and Engagement

- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Appendix



Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Appendix



Enhancing Employee Value and Engagement

Performance

Training

Female Talent Development Training for Managerial Diversity

KOWEPO is committed to cultivating female managers as part of its efforts to enhance workplace diversity. To achieve this, the company operates female workforce development programs and work-life balance culture initiatives. In 2023, a total of seven employees completed the Executive Leadership Program for Women and the Master’s Program for Job Competency Enhancement. Additionally, 47 employees participated in leadership training by job grade, while 12 employees took part in cross-rank leadership training, demonstrating KOWEPO’s dedication to providing diverse training programs for female managers. As a result of continuous efforts, the proportion of newly promoted female mid-level managers increased from 7.4% in 2022 to 11.4% in 2023. KOWEPO will continue to systematically expand its efforts to enhance managerial diversity in the future.

Employee Benefits

Parental Support

KOWEPO operates a support system for each stage of the parenting cycle, covering the entire period from pregnancy and infancy to childhood development. The company has expanded the number of infertility leave days available during pregnancy and introduced paid maternity protection time to ensure that pregnant employees can conveniently attend medical appointments. During the childcare period, KOWEPO has increased the number of paternity leave days and provides employees with up to two hours of daily childcare time for those with children under the age of eight. During the child development stage, the company has expanded childcare leave entitlements and launched a fatherhood support campaign to foster a more parent-friendly work environment. Recognizing these efforts, KOWEPO has been certified as a Family-Friendly Company by the Ministry of Gender Equality and Family for 12 consecutive years.

Enhanced Leave System

KOWEPO strives to minimize the burden associated with taking leave, ensuring that employees can enjoy their time off more freely and without concerns. The company encourages employees to take at least five consecutive days of leave and promotes the use of bridge holidays. To facilitate easier advance use of the following year’s leave, KOWEPO has replaced the previous manual entry system with a one-click system. Additionally, the company has introduced new policies to expand the use and accrual of hourly compensatory leave.

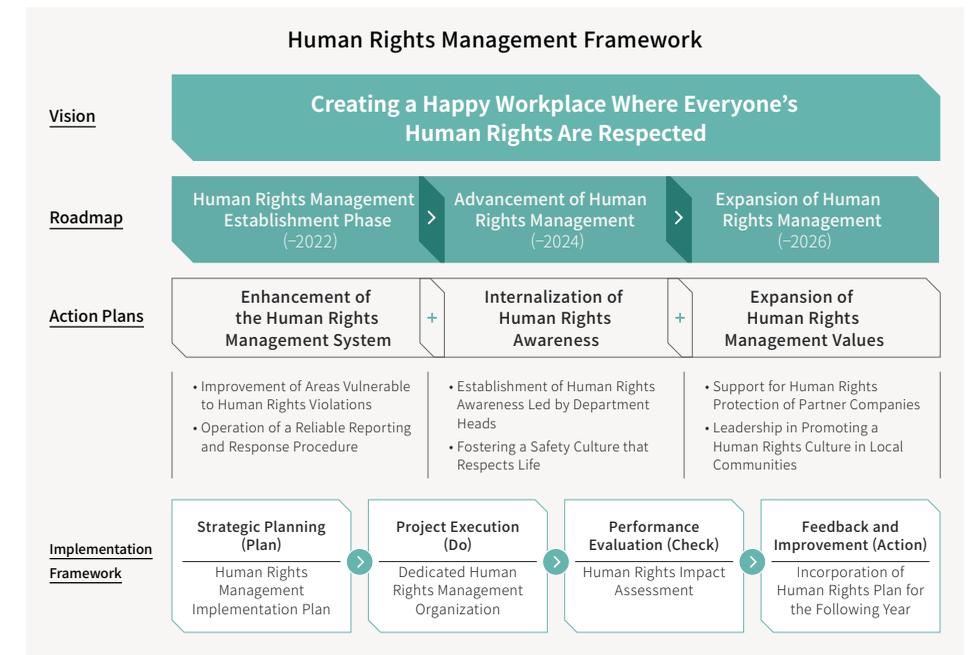
Promoting a Culture of Human Rights Respect

Framework

Human Rights Management Framework

KOWEPO has established and implemented a human rights management framework to prevent potential human rights issues arising from its business activities, promote diversity, and uphold human dignity and value. In line with this commitment, KOWEPO has publicly announced its Human Rights Management Charter based on international and domestic human rights management guidelines, including the UN Human Rights Charter and Human Rights Management Guidelines. Additionally, detailed human rights management provisions are outlined in the Human Rights Management Guidelines, which have been disclosed on the company’s website for all stakeholders to access. Furthermore, from a long-term perspective, KOWEPO is actively engaging in corporate-level human rights management initiatives to integrate human rights principles across its partner companies and local communities, fostering a shared culture of respect for human rights.

- Human Rights Management Charter
- Human Rights Management Guidelines

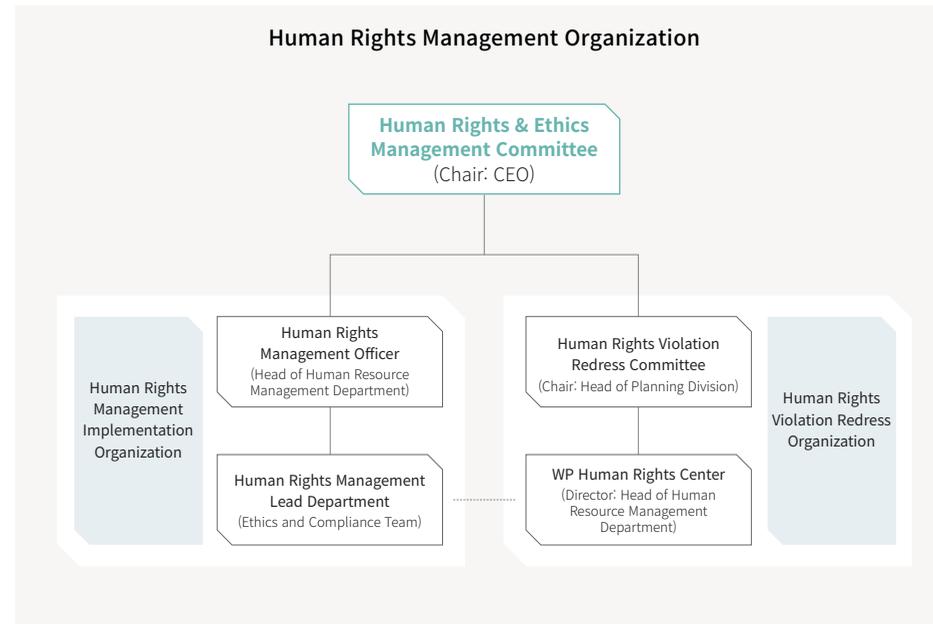


Promoting a Culture of Human Rights Respect

Management Organization

Human Rights Management Organization

KOWEPO has established a dedicated team to ensure the effective management, implementation, and remediation of human rights management. At the core of this structure is the Human Rights & Ethics Management Committee, chaired by the CEO. The Human Rights Management Officer (Head of Human Resource Management Department) and the Human Rights Management Lead Department (Ethics and Compliance Team) oversee the execution of human rights initiatives. For human rights violation remediation, KOWEPO operates the WP Human Rights Center and the Human Rights Violation Redress Committee. The WP Human Rights Center serves as the primary body for counseling, reporting, investigation, and protection of victims and whistleblowers in cases of human rights violations. It was established to safeguard the human rights of all stakeholders who may be directly or indirectly affected by the company's business activities. Meanwhile, the Human Rights Violation Redress Committee is responsible for implementing protective measures for victims, disclosing case outcomes internally and externally, and formulating preventive measures to mitigate secondary harm and prevent recurrence.



Risk Management

Human Rights Impact Assessment

KOWEPO conducts Human Rights Impact Assessments to identify and manage potential human rights risks in its institutional operations and key business activities. In institutional operations, the company reviewed 12 key areas and 168 improvement items, identifying and addressing human rights risks related to cyber rights and maternity protection. For key business activities, KOWEPO assessed three major areas and 37 items, detecting risks associated with protection of life, sexual harassment, and sexual violence. Based on these findings, the company implemented improvements to proactively prevent potential human rights violations in business operations.

Human Rights Impact Assessment Procedure and Methodology



Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Appendix



Promoting a Culture of Human Rights Respect

Performance

Operation of Human Rights Reporting and Response Channels

KOWEPO identifies human rights violations through internal and external reporting channels and seeks fundamental solutions to address them. The company has established multiple reporting avenues, including on-site grievance counselors, the headquarters' Human Rights Center, an independent legal counsel (Safe Lawyer), and external reporting agencies, ensuring that victims of human rights violations can file reports safely. Upon receiving a report, KOWEPO conducts a thorough investigation to ascertain the facts and provides necessary support to help victims quickly and securely escape harmful situations. As a result, in 2023, KOWEPO achieved a 100% resolution rate for cases reported through communication channels. Perpetrators subject to disciplinary action were reassigned, including removal from their positions and relocation to different regions, ensuring appropriate separation measures were implemented.

Enhancing Human Rights Awareness Among Managers

Fostering a corporate culture that respects human rights requires strong commitment and leadership from executives and managers. To reinforce this, KOWEPO's CEO issued a formal letter to department heads emphasizing the eradication of workplace harassment and conducted special lectures for managerial staff. As part of efforts to enhance human rights awareness among managers, the company implemented initial response training for human rights violations and sexual violence prevention education. Additionally, KOWEPO published a Roles and Responsibilities Manual for Department Heads, providing guidelines on vision-setting, communication strategies, and department management with a human rights perspective. Furthermore, the Ethics and Audit Departments conduct regular monitoring of human rights violations, ensuring independent third-party oversight.

Implementation of Human Rights Violation Prevention Training

KOWEPO conducts a wide range of training programs to prevent human rights violations, including training on the prevention of the four major types of violence, disability awareness education, child abuse prevention training, sexual harassment and sexual violence prevention training for senior executives, and training for sexual harassment grievance counselors. As a result, the training on the prevention of the four major types of violence, disability awareness education, and child abuse prevention training, which are conducted for all employees, achieved a 94% completion rate. Meanwhile, the sexual harassment and sexual violence prevention training for senior executives recorded a 100% completion rate.

Efforts to Establish a Human Rights Culture Among Employees

KOWEPO is committed to enhancing human rights awareness among employees and fostering a more equitable and fair organizational culture. To promote a culture of respect for human rights, the company produces and broadcasts various content on its internal video platform, including webtoons on human rights violations, a human rights-themed music video, and workplace sexual harassment prevention broadcasts. These initiatives encourage employees to remain engaged with human rights issues, contributing to the continuous expansion of a human rights-respecting culture.

Fostering a Human Rights-Respecting Ecosystem

KOWEPO is committed to improving human rights standards not only within the company but also across its business activities, including partner companies and local communities. Through the WP Human Rights Seminar, the company promotes the dissemination of human rights values among partner companies and local communities. Additionally, KOWEPO supports the establishment of a human rights culture by providing ESG management consulting to partner companies. Furthermore, the company strives to enhance human rights across society by assisting vulnerable groups who are at risk of human rights violations.

Human Rights Culture Expansion Program for Partner Companies and Vulnerable Groups

Target	Current Status	Collaborating Institutions	Implementation Details
Partner Companies	Lack of Internal Resources and Resistance to Adoption for Human Rights Culture Establishment	-	Support for ESG management consulting provided to 14 partner companies to foster a human rights culture
Local Residents	Lack of specialists limits timely and appropriate medical treatment	Public medical institutions such as Taeon Medical Center and Seosan Medical Center	Support for expanding the number of resident doctors by five to safeguard the right to treatment
Low-Income Households	Energy poverty restricts access to basic energy rights	Local governments, including Chungcheongnam-do Provincial Office and Taeon County Office	Support for 100 low-income households through insulation improvements and heating system replacements
Persons with Disabilities	Limited community awareness of disability rights	Taeon County Disability Welfare Center, Disability Association	Support for awareness-raising initiatives, such as Disability Day and the Para Sports Competition
Seniors	Limited employment opportunities	Senior welfare centers, social security councils	Creation of 32 senior jobs through a resource recycling initiative

Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect

→ **Supply Chain Management and Mutual Growth**

- Revitalizing Local Communities
- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

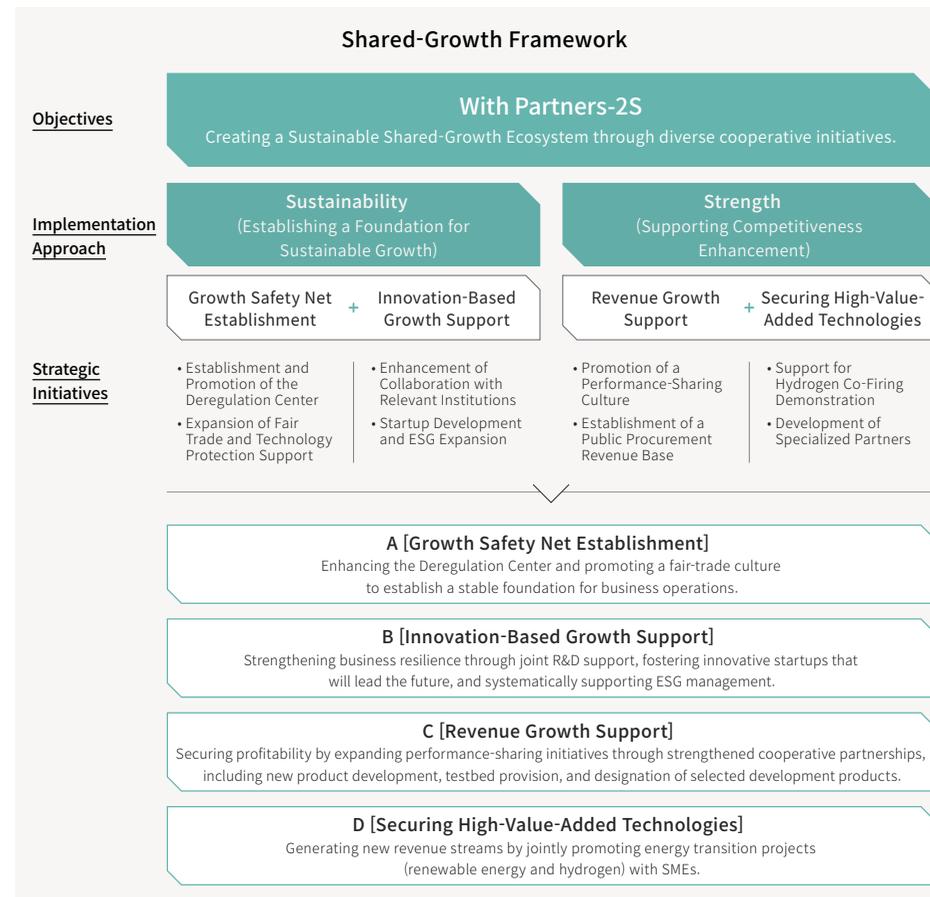
Appendix

Supply Chain Management and Mutual Growth

Framework

Shared-Growth Strategic Framework

KOWEPO has established a Shared Growth Strategy Framework to create a business ecosystem where all partner companies within the supply chain grow together. Under the objective of ‘Creating a Sustainable Shared-Growth Ecosystem through diverse cooperative initiatives,’ KOWEPO has defined two strategic directions: establishing a foundation for sustainable growth and supporting competitiveness enhancement. Under these directions, the company formulated and implemented strategic initiatives for 2023.



Management Organization

Shared Growth Management Organization

KOWEPO operates the Shared Growth & Coexistence Office as its dedicated organization for managing shared growth initiatives. The Shared Growth & Coexistence Office is deployed at both the headquarters and business sites. At business sites, it consists of one deputy general manager and one staff member. This office leads various support programs to foster resilient SMEs, including enhancing ESG management capabilities, strengthening technological expertise, expanding overseas market opportunities, achieving carbon neutrality in facilities, and supporting exhibitions and market development expenses. It is also responsible for establishing comprehensive strategies and action plans related to these initiatives. Additionally, the office is engaged in purchasing and supporting SME-produced innovative products.

Risk Management

Supply Chain Risk Assessment

KOWEPO conducts ESG assessments to evaluate the sustainability of partner companies and manage potential risks. Partner companies perform online self-assessments based on industry-specific evaluation criteria, with on-site inspections and interviews conducted when necessary. Based on the assessment results, KOWEPO identifies key management areas requiring improvement and provides implementation guidelines by formulating targeted improvement tasks. These tasks are categorized into short-term and long-term initiatives based on their feasibility and significance, ensuring continuous improvements that enhance ESG management practices. In 2023, ESG assessments and support programs were conducted for 11 partner companies, with plans to expand the initiative to 19 companies going forward.

Supply Chain Management and Mutual Growth

Target Management

Maintaining the Highest Rating in the Shared Growth Assessment

KOWEPO has identified trust-building through shared growth as a core business value and actively manages the Shared Growth Assessment Index administered by the Ministry of SMEs and Startups to evaluate its implementation efforts. In the 2022 assessment, KOWEPO achieved an ‘Excellent’ rating, followed by the highest ‘Outstanding’ rating in 2023. The company continues to strive for not only maintaining this excellence, but also realizing the substantive value of shared growth.

Performance

Support for Domestic and International Market Expansion of SMEs and Mid-Sized Enterprises

KOWEPO supports SMEs and mid-sized enterprises with strong technological capabilities in expanding into overseas markets through various sales channels. To assist companies facing challenges in entering global markets, KOWEPO has leveraged its collaborative network to expand international sales opportunities and provided practical support through export consultation meetings and financial assistance agreements. As a result, companies participating in the 2023 overseas market expansion program achieved a total revenue of KRW 5.97 billion.

Localization of Overseas Power Equipment Through SME Collaboration

KOWEPO has successfully replaced imported power equipment used in its facilities with domestically manufactured products from SMEs, achieving both support for local businesses and cost savings. Through a one-on-one matching system, KOWEPO employees worked directly with participating companies to identify suitable items, thoroughly reviewing operating conditions, equipment design, and patent rights to develop localized products. The newly developed products underwent demonstration tests to ensure safety and reliability before being introduced into the market, with additional support provided to facilitate their stable market adoption. In 2023, KOWEPO introduced seven prototype products on-site, resulting in an average cost reduction of 55.3% compared to imported alternatives.

Support for Enhancing SMEs’ Technological Capabilities

KOWEPO has facilitated the transfer of its intellectual property (IP) rights to SMEs, both free of charge and through paid agreements, to help strengthen their technological capabilities. As part of its Free Technology Sharing Program, KOWEPO internally reviewed and selected 61 unused patents that it solely owned but had not utilized. These patents were transferred to SMEs that needed them, supporting their commercialization efforts. Additionally, through paid technology transfers, KOWEPO identified companies with demand for key patented technologies and transferred 495 domestic patents and 26 international patents under a fee-based model. Among these, 34 patents were successfully commercialized, generating an estimated economic value of KRW 3 billion.

ESG Management Support for Partner Companies

KOWEPO provides ongoing ESG support programs for its SME partners, including ESG capability-building training and consulting services. In 2023, KOWEPO implemented an energy efficiency initiative for SMEs in the root industry, conducting factory automation diagnostics and system upgrades. As a result, the initiative led to a reduction in defect rates and energy consumption, generating financial benefits of KRW 490 million and achieving a 137% improvement rate across key performance indicators, such as process optimization and power savings. Additionally, KOWEPO conducted comprehensive ESG diagnostics and consulting across environmental, social, and governance areas, supporting 11 companies in obtaining safety and health management certifications and information security accreditations. Through these efforts, KOWEPO helped raise the average ESG rating of its partner companies by one level in evaluations conducted by NICE Information Service.

Support for Resolving Business Challenges of Partner Companies

KOWEPO actively implements various initiatives to address the operational challenges of partner companies and ease regulatory burdens. As part of its regulatory improvement efforts, KOWEPO operates a Regulatory Improvement Council to identify and resolve difficulties faced by partner companies. Additionally, to uncover excessive regulatory constraints, KOWEPO organized a Regulatory Improvement Competition for partner companies. To directly address concerns raised by SMEs, KOWEPO launched the On-Site Deregulation Center, conducting CEO field management sessions for six companies and visiting 25 companies for direct consultations with CEOs. Through these efforts, 29 regulatory and operational issues were identified and resolved. Notably, the On-Site Deregulation Center led to a sevenfold increase in issue resolution cases.

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect

- Revitalizing Local Communities
- Strengthening Information Security

- Governance
- Advancing Ethical Management
- Risk Management

Supply Chain Management and Mutual Growth

Performance

Enhancing the Welfare of Partner Companies

KOWEPO is committed to reducing the workplace satisfaction gap between large corporations and SMEs while supporting partner companies in establishing a welfare environment and workforce capabilities that align with global business standards. To fulfill its social responsibility toward partner companies, KOWEPO collaborates with government agencies to co-fund vacation subsidies for SME employees. Additionally, it expands training opportunities to promote organizational growth and strengthen competitiveness.

2023 Partner Company Welfare Support Overview

Category	Description	Performance
Employee Benefits	<ul style="list-style-type: none"> KOWEPO and the government each contributed KRW 100,000 per employee to encourage a healthy vacation culture 	<ul style="list-style-type: none"> 47 employees from 12 companies received a total of KRW 4.7 million in vacation subsidies
	<ul style="list-style-type: none"> Awarded the 'Change Maker' Shared Growth Brand to five companies, with a total prize of KRW 50 million 	<ul style="list-style-type: none"> A partner company received the Minister of Health and Welfare Award for outstanding performance
	<ul style="list-style-type: none"> Partner company employees received KRW 200,000 in welfare points for purchases on the Shared Growth Mall 	<ul style="list-style-type: none"> 136 employees from 14 companies utilized KRW 27.2 million in welfare benefits
Capacity Building	<ul style="list-style-type: none"> Supported the 'Tomorrow Savings Pension Program' to encourage the long-term retention of skilled employees 	<ul style="list-style-type: none"> 43 employees from 33 companies received a monthly stipend of KRW 150,000
	<ul style="list-style-type: none"> Financial support for long-term retention of key talent(Enhancing adaptability to the global business environment and developing advanced leadership skills) Strengthening collaboration networks through support for overseas market expansion and exchange activities(Providing information on KOWEPO's overseas projects, KOICA procurement details, and business opportunities) 	<ul style="list-style-type: none"> 150% increase in training participation compared to the previous year 126% increase in the number of participating enterprises in the advisory council compared to the previous year

Support for Social Economy Enterprises

KOWEPO provides tailored support for both emerging and established social economy enterprises to foster the growth of the social economy. For emerging social economy enterprises, KOWEPO hosted the 3rd Impact IR Investment Competition in 2023, facilitating business startups and investment attraction. Additionally, the company enhanced the Social Batton platform, a program designed to share management expertise between early-stage and established social economy enterprises. This upgrade shifted the program from a one-way knowledge transfer model to an interactive platform, enabling continuous communication between senior and junior enterprises on business idea development and management strategies. For established social economy enterprises, KOWEPO supported new business development through public contests, facilitated joint product development, launched a Chuseok product showcase, and operated an online supporter program to expand market access. Furthermore, initiatives such as tourism product development, website construction, and promotional marketing helped revive businesses affected by the post-pandemic economic slowdown. As a result, participating social economy enterprises saw a 40.8% year-over-year increase in revenue, rising from KRW 980 million in 2022 to KRW 1.38 billion in 2023.

Procurement of Innovative Products

KOWEPO signed a business agreement with Laos PNPC to support the growth of SMEs and mid-sized enterprises with innovative products through demonstration projects. PNPC, a special-purpose company operating a hydropower plant in Laos, has been managed by KOWEPO's local subsidiary (KLIC) for 27 years. Through this agreement, SMEs and mid-sized enterprises selected for the Public Procurement Service's Innovative Product Pilot Purchase Program were given the opportunity to supply, install, and test-run their products at PNPC. Furthermore, KOWEPO provided support for transportation costs, customs clearance fees, and shared information on power generation facilities, fostering the self-sufficiency of SMEs and mid-sized enterprises in overseas markets.

Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth

→ Revitalizing Local Communities

- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

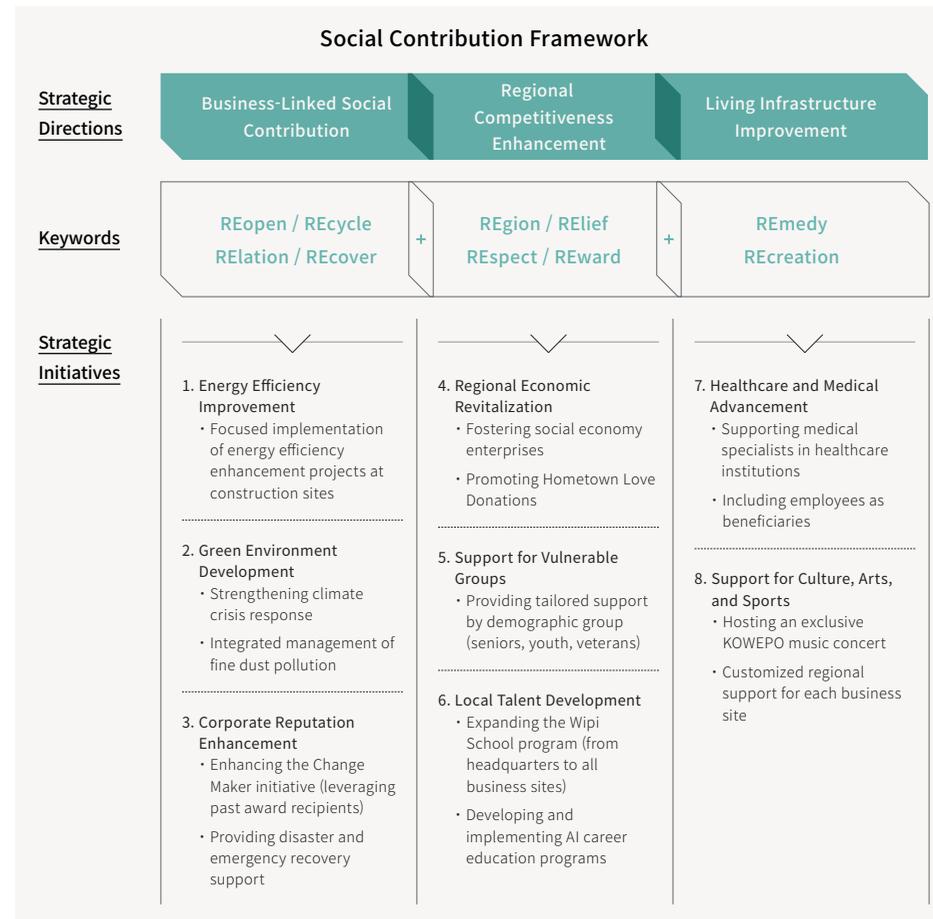
Appendix

Revitalizing Local Communities

Framework

Social Contribution Framework

As an integral member of the local communities in which it operates, KOWEPO is committed to balanced regional development and contributing to stable energy supply. To achieve this, KOWEPO has established three strategic directions for its social contribution efforts: business-linked social contribution, regional competitiveness enhancement, and living infrastructure improvement. To implement these strategies effectively, the company has formulated eight strategic initiatives, which are actively being carried out.



Management Organization

Social Contribution Organization

KOWEPO actively listens to diverse community perspectives and enhances its social contribution policies through the Corporate Social Responsibility (CSR) Committee. Regular committee meetings are held to review progress and share future plans for social contribution initiatives. Based on discussions during these meetings, areas for improvement are identified to further enhance and advance the company's social contribution efforts. Additionally, since 2004, KOWEPO has been operating the KOWEPO Volunteer Group, continuously engaging in volunteer activities alongside its social contribution initiatives.



Target Management

Social Contribution Targets

KOWEPO has established and shared its social contribution targets, focusing on Green Energy & Environmental Development, Regional Competitiveness Enhancement, and Living Infrastructure Improvement. To achieve its Green Energy & Environmental Development targets, the company regularly monitors energy savings. For Regional Competitiveness Enhancement, it manages data on local job creation to assess progress toward its goals. Additionally, to fulfill the Living Infrastructure Improvement targets, KOWEPO has outlined specific plans such as enhancing community welfare and strengthening local engagement efforts, implementing them in a phased approach.

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth

- Strengthening Information Security

- Governance
- Advancing Ethical Management
- Risk Management

Revitalizing Local Communities

Performance

Social Contribution Project Evaluation Process

KOWEPO implements a Social Contribution Project Evaluation Process to identify and execute initiatives that align with the company's values and objectives. Following this process, the company establishes selection criteria for both new and ongoing social contribution projects and compiles a project pool that meets these standards. Subsequently, the External Cooperation Cooperate Relations Office, the External Cooperation Committee, and the Corporate Social Responsibility (CSR) Committee convene to assess the feasibility, execution capabilities, and public value of the selected projects. Through this multi-stage evaluation, the company determines the initiatives to be implemented for the given year. By following this structured approach, KOWEPO ensures the effectiveness of its social contribution activities, striving to generate meaningful benefits for both the company and society.

Green Energy & Environmental Development Initiatives

KOWEPO leverages its business expertise to address community challenges by implementing support programs for energy-vulnerable groups. In 2023, KOWEPO collaborated with local governments near its power plants, including Taean County, Gongju City, and Gumi City, to upgrade outdated energy facilities. This initiative provided high-efficiency LED lighting and heating/cooling systems to 97 low-income households, 59 welfare facilities, and 34 senior centers. Additionally, KOWEPO installed cool roofs and energy-efficient windows in three households and one welfare facility in Taean County to enhance heating and cooling efficiency, helping reduce energy costs for the local community. Furthermore, the company provided electrical appliances and inspected and replaced wiring for 52 households affected by flooding in Gongju City, contributing to fire prevention and household safety. These efforts led to a 13% reduction in electricity costs for welfare facilities in Taean County. Additionally, in Gongju, a newly planned power plant site, the initiative enhanced community acceptance, resulting in a six-month reduction in the environmental impact assessment approval process, generating positive outcomes.

Regional Competitiveness Enhancement Customized Job Creation by Age Group

KOWEPO implemented age-specific job creation initiatives by incorporating community feedback. For young adults, the company operated a business commercialization support program for startups, assisting 15 enterprises, which led to the creation of 58 jobs. For middle-aged workers, KOWEPO provided support for establishing social enterprises and employment linkage services for safety supervisors and partner companies, resulting in the hiring of 23 employees by partner firms.

For seniors, initiatives such as paper carton recycling projects and improving working conditions for battery recycling led to the creation of 32 senior jobs, alongside a 25% monthly wage increase. In recognition of these contributions, KOWEPO was awarded the Minister of Health and Welfare Award in 2023 for its achievements in senior job creation in the social service sector.



↑ KOWEPO Senior Job Creation Project Mid-Term Report Meeting Held

Operation of the Employment Support Council for Local Governments, Schools, and Enterprises

To address the employment challenges faced by local talent due to declining job opportunities, KOWEPO operates an Employment Support Council in collaboration with industry, academia, and local governments. The council, which includes 10 organizations such as Taean County Office, KOWEPO, and the Regional Employment Center, facilitates recruitment briefings, job introductions, and on-site visits hosted by KOWEPO. As a result, 13 high school graduates successfully secured employment with local companies. Moving forward, KOWEPO plans to expand job activation programs through continued industry-academia-government collaboration.

Seobu Gong-gam Wipi School

Seobu Gong-gam Wipi School is a social contribution initiative aimed at bridging the educational gap for youth in the Taean region while fostering future talent for KOWEPO and local businesses. At Wipi School, university student mentors provide academic guidance, customized special lectures, and career counseling to elementary, middle, and high school students. Since launching its first cohort in 2017, Wipi School has continued for an extended duration, recently completing its 14th cohort in 2024.

Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth

→ Revitalizing Local Communities

- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Appendix

Revitalizing Local Communities

Performance

Improvement of Local Living Infrastructure

Support Programs for Vulnerable Groups

KOWEPO is committed to addressing the challenges faced by vulnerable groups within the local community. To enhance crime prevention measures around schools, KOWEPO implemented the Taeon Tunnel Environment Improvement Project, improving the pedestrian environment for over 1,000 elementary and middle school students in the area. Additionally, to support at-risk youth, the company operated a growth support program for 58 participants, providing both financial and non-financial assistance. Furthermore, KOWEPO expanded support for vulnerable groups, including persons with disabilities, seniors, and national veterans, ensuring that all members of the community have access to healthcare, cultural experiences, and safety-related welfare services. In recognition of these contributions, KOWEPO has been designated as a ‘Community Contribution Recognized Enterprise’ for five consecutive years. Additionally, it became the first public enterprise to receive the Minister of Health and Welfare Award.

Expansion of Facility Access and Equipment Sharing

KOWEPO promotes community convenience by sharing its facilities and equipment with local residents. The company has opened various facilities, including the headquarters convention hall, Taeon Power Plant meeting rooms, Pyeongtaek Power Plant safety experience center, and Taeon staff housing indoor gymnasium, for cultural events and educational activities within the community. Additionally, fire trucks and water tankers stationed at the Taeon Thermal Power Complex Division have been utilized for fire suppression efforts in the Taeon region. As a result of these initiatives, KOWEPO was recognized as an ‘ESG Practice Enterprise for Rural Communities’ for two consecutive years by the Large and Small Business, Agriculture, and Fisheries Cooperation Foundation and was awarded the Minister of Trade, Industry, and Energy Award.

Regional Disaster Management

KOWEPO is dedicated to minimizing disaster risks in the regions where its operations are located. During the 2023 Typhoon Khanun, CEO-led proactive measures ensured that no disaster-related damage or power plant shutdowns occurred. Additionally, the company provided volunteer support and recovery assistance for vulnerable groups affected by flooding. KOWEPO has also strengthened fire safety systems by establishing a Comprehensive Disaster Prevention Center at its power plants and continues to focus on disaster recovery and prevention efforts. As a result of these initiatives, the Seobu Fire Brigade received a commendation for excellence in fire response support, and KOWEPO was awarded first place at the Chungcheongnam-do Fire Drill Competition.

Community Disaster Relief Activities

Category	Description	Support Amount
Natural Disaster	• Replacement of aging boilers in village community facilities and installation of cool roof (thermal insulation paint)	KRW 100 million
	• Energy cost support for low-income households and small businesses, covering heating and cooling expenses	KRW 100 million
	• Volunteer efforts and air-conditioning/heating system replacements for flood recovery in Gongju	KRW 50 million
Social Disaster	• Support for wildfire recovery in special disaster zones (Hongseong, Chungnam & Gangneung, Gangwon)	KRW 200 million
	• Provision of voice-activated fire extinguishers and detectors for vulnerable groups, including seniors and persons with disabilities	KRW 20 million
Living Safety	• Support with automatic fire extinguishers for elderly households using wood-burning boilers in rural areas	KRW 6 million
	• Establishment and operation of an air quality monitoring network to provide policy recommendations and public health information on fine dust pollution	KRW 420 million
	• Deployment of water-spraying trucks during the seasonal fine dust control period to reduce road dust pollution	KRW 120 million
	• Free rental of automated tarp covers for dump trucks transporting power plant byproduct ash to prevent dust dispersion	KRW 40 million

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities

- Governance
- Advancing Ethical Management
- Risk Management

Revitalizing Local Communities

Performance

Job Creation Achievements

KOWEPO collaborates with the private sector to drive job creation initiatives. KOWEPO has created 250 eco-friendly and safety-related jobs across 14 low-carbon and energy new business sectors, including fine dust reduction projects and resource circulation technology development. Additionally, through technology expansion in the power generation sector, such as new R&D initiatives and the development of smart energy platforms, KOWEPO has generated 194 jobs across six business sectors. Furthermore, KOWEPO has fostered an innovation-driven startup ecosystem by promoting new business creation and job creation platforms, leading to the implementation of two projects and the creation of 45 jobs. Additionally, the company has generated 165 jobs in supporting the self-sufficiency of vulnerable groups and advancing regional balance and fair transition initiatives. As a result, in 2023, KOWEPO exceeded its job creation target of 570 jobs by 14.7%, achieving a total of 654 jobs.

Employee Volunteer and Donation Activities

KOWEPO employees actively engage in volunteering and donation initiatives to support the local community. In collaboration with the KOWEPO Labor Union and eight partner companies, employees organized a Chuseok volunteer event, preparing and delivering side dishes and daily necessities to 100 vulnerable households in Taean County. Since the launch of the 'Sharing Side Dishes with Love' initiative in 2021, KOWEPO has continued its long-term commitment to community support through sustained sharing efforts. Furthermore, KOWEPO employees actively participate in voluntary donation programs to support those in need. They contribute through the 'Love Salary Rounding Fund,' which deducts amounts less than KRW 1,000 from their monthly salaries, and the 'Seobu Nanumi Account,' where employees voluntarily donate KRW 1,000 per month. These volunteer and donation activities reflect one of the core values shared by KOWEPO employees.



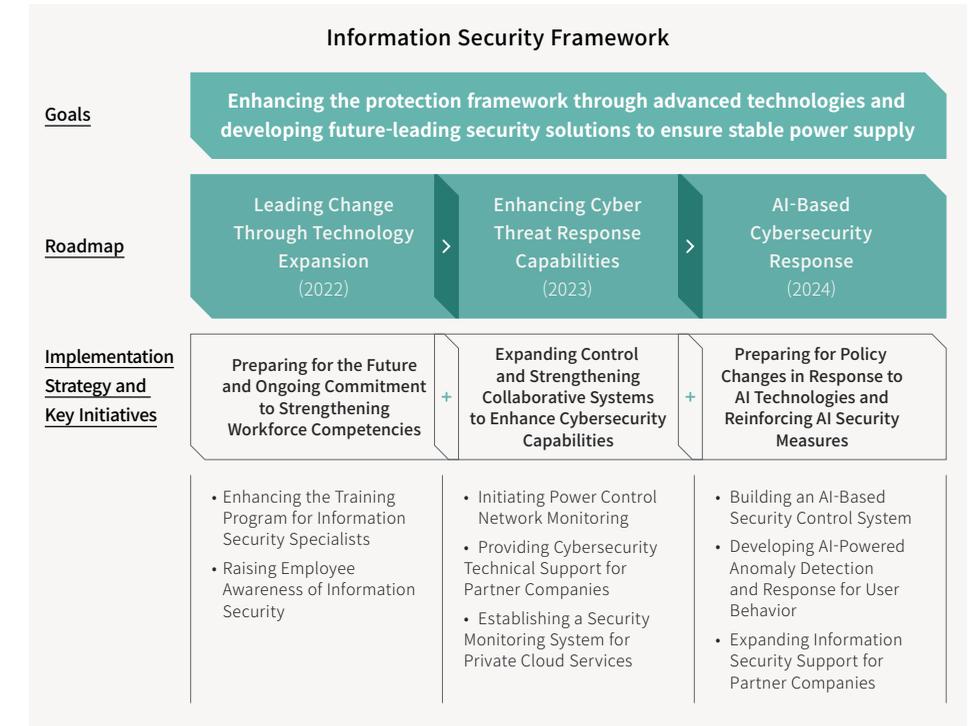
↑ Support for KOWEPO's 'Sharing Side Dishes with Love' Project

Strengthening Information Security

Framework

Information Security Framework

KOWEPO has established and operates a comprehensive information security framework to proactively counter cyber threats that could disrupt stable power grid operations. Through its Cyber Safety Center, KOWEPO actively responds to cyber threats such as hacking and continuously strengthens its response strategies to achieve zero cybersecurity incidents. Moreover, KOWEPO contributes to enhancing cybersecurity resilience across society by sharing its best practices—which are currently operating successfully—with other institutions and private sector organizations.



Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities

→ Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Strengthening Information Security

Management Organization

Information Security Management Organization

To protect internal assets and customer information from numerous security threats, including hacking and data leaks, KOWEPO has established a robust information security management system. The Chief Information Security Officer (CISO) is responsible for making key decisions and overseeing all security policies, while the Information Security Office handles operational security tasks and implementation.

Risk Management

International Information Security Certification

KOWEPO has obtained ISO 27001 (Information Security Management System) certification for its headquarters and four business sites: Taeon, Pyeongtaek, Seo-Incheon and Gunsan. ISO 27001 is an international standard for the establishment, implementation, maintenance, and improvement of an information security management system. KOWEPO maintains confidentiality, integrity, and availability of information by implementing an information security system aligned with international standards, effectively managing information security risks. Additionally, the company has obtained ISMS-P (Information Security Management System & Personal Information Protection System) certification, Korea's highest-level security management framework, to further enhance its preparedness against information security risks. Moving forward, KOWEPO plans to expand and renew its ISO 27001:2022 certification across all business sites by 2025, further strengthening its personal information protection scope and capabilities.

Target Management

Zero Cybersecurity Incidents

Since its establishment, KOWEPO has maintained zero cybersecurity incidents for 23 consecutive years since 2001. The company continues to set zero security incidents as a core objective, implementing systematic preventive measures to safeguard against cybersecurity threats.

Performance

Strengthening Information Security Capabilities

KOWEPO leverages advanced technologies to maintain a robust information security framework. With the diversification of work environments, including remote work, and the increasing frequency of cyberattacks, the company has strengthened its security process across four key

areas: monitoring, prevention, response, and recovery. Additionally, protective infrastructure has been enhanced to enable the immediate containment of cyber threats upon detection. Furthermore, KOWEPO expanded and relocated its Cyber Safety Center, increasing the integrated security monitoring system from 9 to 16 screens to enhance real-time surveillance. To counter AI-driven cyberattacks, the company integrated protective infrastructure for threat intelligence analysis, minimizing blind spots in security monitoring. Additionally, KOWEPO established a Comprehensive Cyber Crisis Response Control Room and an Incident Analysis Laboratory, further strengthening its cybersecurity response capabilities. As a result of these efforts, KOWEPO has maintained the highest rating in the Personal Information Protection Level Assessment conducted by the Personal Information Protection Commission for eight consecutive years. Notably, in the 2023 assessment, KOWEPO achieved an S-grade, a distinction awarded to only 1.9% of 800 public institutions, demonstrating the excellence of its personal information protection framework.

Expansion of Personal Information Protection Training

KOWEPO conducts information security training to enhance employees' practical cybersecurity skills and raise awareness of personal information protection. To prevent data breaches in outsourced personal information processing, the company provides training for employees handling consignment processing, conducts on-site inspections of subcontractors, and offers management training for subcontractor administrators. Additionally, company-wide awareness training on personal information protection has been implemented for all employees. KOWEPO ensures 100% participation in personal information protection training by supplementing large-scale training sessions with additional courses for all employees.

Enhancing Information Security and Personal Data Protection Collaboration

KOWEPO actively shares its information security and personal data protection initiatives with other institutions and society at large to strengthen cybersecurity across industries. In June 2024, KOWEPO signed a collaboration agreement with Taeon County, where its power generation facilities are located, to enhance cybersecurity. This partnership includes network vulnerability assessments and phishing email response training to fortify local government IT security. Additionally, KOWEPO signed a partnership agreement with Korea Midland Power (KOMIPO) to enhance personal information protection standards. This collaboration involves mutual verification of data protection practices and joint inspections of subcontractors, facilitating the exchange of technologies and expertise between the two companies. Furthermore, KOWEPO hosted a 'Nationwide Information Security and Personal Data Protection Awareness Campaign' at Mallipo Beach in Taeon, sharing practical cybersecurity guidelines to help prevent personal data breaches in everyday life.

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

- Advancing Ethical Management
- Risk Management

Governance

Framework

Transparent and Fair Governance

KOWEPO operates a transparent and fair governance system to ensure safe power supply and drive sustainable innovation. Through the Board of Directors equipped with independence, expertise, and diversity, the company closely oversees executive management and strives to provide effective managerial support.

KOWEPO Board of Directors Regulations

BOD Diversity

KOWEPO strives to build the Board of Directors with diverse backgrounds, including expertise, experience, gender, and regional representation. The company has appointed directors from various professional fields, such as accounting, technology and safety, and corporate management. Additionally, one of the non-executive directors is a woman, reinforcing gender diversity. Furthermore, the Executive Nomination Committee operates a gender-balanced nomination system to ensure gender diversity is considered in the director selection process. These initiatives are transparently disclosed on the company's website for stakeholder accessibility.

BOD Expertise

KOWEPO operates various programs to enhance the expertise of its Board of Directors. To support non-executive directors in effectively performing their duties, the company provides training on power generation operations and site visits. Additionally, the online Board Information System (E-BOD) has been implemented to reduce the asymmetry of internal information between executive and non-executive directors. Furthermore, KOWEPO has developed Board Operation Guidelines to standardize board procedures and provides non-executive directors with materials on corporate affairs and trends in the power industry. These efforts ensure that board operations remain focused on the company's core issues.

BOD Independence

In accordance with Article 21 of the Act on the Operation of Public Institutions and Article 4 of the Board Regulations, the Chairperson of the Board is appointed from among the non-executive directors. Additionally, all board members, including the Chairperson, are selected by independent bodies such as the Executive Nomination Committee and the General Meeting of Shareholders, separate from the management team. This selection process is conducted fairly under the KOWEPO Executive Nomination Committee Regulations. The KOWEPO board consists of five non-executive directors and four executive directors. To strengthen the board's independence and ensure objective oversight of management, more than half of its members are non-executive directors.

KOWEPO Executive Nomination Committee Operating Regulations

KOWEPO Co., Ltd. Executive Status

As of December 31, 2024

Name	Gender	Position	Registered Executive Status	Responsibilities	Key Experience	Term of Office
Lee Jung Bok	Male	President & CEO	Executive Director	Overall Business Management	<ul style="list-style-type: none"> Executive Vice President, Korea Electric Power Corporation Acting President, Korea Electric Power Corporation 	September 30, 2024 - As of the reference date
Song Jae Sub	Male	Executive Auditor	Executive Director	Business and Accounting Audit	<ul style="list-style-type: none"> Advisor, Dambak Law Firm Head of Planning Division, KOWEPO 	November 4, 2024 - As of the reference date
Seo Kyu Seog	Male	Executive Vice President of Business Division	Executive Director	Overall Management of Business Division	<ul style="list-style-type: none"> Director of HR Innovation, Korea Electric Power Corporation Director of Shared Growth & Cooperation, Korea Electric Power Corporation 	November 7, 2023 - As of the reference date
Ohm Kyong Il	Male	Executive Vice President of Engineering Safety Division	Executive Director	Overall Management of Engineering Safety Division	<ul style="list-style-type: none"> Head of Planning and Management Division, KOWEPO Head of Taean Thermal Power Complex Division, KOWEPO 	December 9, 2022 - As of the reference date
Oh Eun Kyung	Female	Non-Executive Director Non-Executive Auditor	Non-Executive Director	Overall Business Operations	<ul style="list-style-type: none"> Professor, General Education College, Dongduk Women's University Director, Institute for Eurasian Turkic Studies, Dongduk Women's University 	January 21, 2022 - As of the reference date
Kwon Oh In	Male	Non-Executive Director	Non-Executive Director	Overall Business Operations	<ul style="list-style-type: none"> Director of Legislative Affairs, Chungnam Provincial Council Deputy Mayor, Gyeryong City 	April 24, 2023 - As of the reference date
Baek Bong Lyeal	Male	Non-Executive Director	Non-Executive Director	Overall Business Operations	<ul style="list-style-type: none"> Senior Officer, National Intelligence Service 	April 24, 2023 - As of the reference date
Park Kae Seong	Male	Non-Executive Director Non-Executive Auditor	Non-Executive Director	Overall Business Operations	<ul style="list-style-type: none"> CEO, Garip Accounting Corporation CEO, Elio & Company 	April 24, 2023 - As of the reference date
Cho Pan Hwan	Male	Non-Executive Director Employee Representative Director	Other Non-Executive Director	Overall Business Operations	<ul style="list-style-type: none"> Director of Planning Department, KOWEPO Labor Union Senior Vice Chairman, KOWEPO Labor Union 	July 2, 2024 - As of the reference date

Governance

Framework

Director Appointment Process		
Position	Procedure	Term of Office
President & CEO	<ol style="list-style-type: none"> ① Recruitment (Open recruitment or combined recruitment & recommendation) ② Recommendation by the Executive Nomination Committee ③ Deliberation and resolution by the Public Institution Management Committee of the Ministry of Economy and Finance ④ Resolution at the General Meeting of Shareholders ⑤ Nomination by the head of the relevant supervisory authority ⑥ Appointment by the President 	3 years
Executive Auditor	<ol style="list-style-type: none"> ① Recruitment (Open recruitment, recommendation, or combined recruitment & recommendation) ② Recommendation by the Executive Nomination Committee ③ Deliberation and resolution by the Public Institution Management Committee of the Ministry of Economy and Finance ④ Resolution at the General Meeting of Shareholders ⑤ Nomination by the Minister of Economy and Finance ⑥ Appointment by the President 	2 years
Executive Director (Excluding President and Executive Auditor)	<ol style="list-style-type: none"> ① Resolution at the General Meeting of Shareholders ② Appointment by the President & CEO 	2 years
Non-Executive Director	<ol style="list-style-type: none"> ① Recruitment (Open recruitment, recommendation, or combined recruitment & recommendation) ② Recommendation by the Executive Nomination Committee ③ Deliberation and resolution by the Public Institution Management Committee of the Ministry of Economy and Finance ④ Resolution at the General Meeting of Shareholders ⑤ Appointment by the Minister of Economy and Finance 	2 years

Implementation of the Employee Attendance System

In 2020, KOWEPO introduced the Employee Representative Board Attendance System, allowing either the Chairperson of the Representative Labor Union or a designated employee recommended by the Chairperson to attend Board of Directors meetings. This initiative goes beyond mere participation by sharing agenda items in advance and granting speaking rights during board meetings, ensuring that employee perspectives are actively reflected. Through this approach, KOWEPO strives to foster an open board culture and strengthen labor-management partnership.

Performance

Board of Directors Operations

The Board of Directors operates through regular and special meetings. Regular meetings are held on the fourth Thursday of each month as a standard practice, while special meetings are convened as needed for urgent matters. Meetings are called by the Chairperson of the Board of Directors or upon the request of at least one-third of the directors in office. The meetings are presided over by the Chairperson, who is selected from among the senior non-executive directors. KOWEPO continuously enhances the transparency and effectiveness of Board of Directors operations by incorporating feedback from operational improvement surveys and management evaluation findings.

Transparent Board of Directors Operations

KOWEPO strengthens the transparency of Board of Directors operations by enhancing performance evaluations and feedback mechanisms while ensuring that these processes are disclosed to internal and external stakeholders. The company analyzes factors such as the number of board meetings, attendance rates, participation in discussions, and stakeholder satisfaction assessments to identify areas for improvement. Performance evaluation results and actual implementation records of improvement measures are transparently disclosed on both internal and external websites. As a result of these efforts, KOWEPO recorded 10 board meetings, a 98% non-executive director participation rate in discussions, and an average board meeting attendance rate of 97% in its 2023 internal performance evaluation. Additionally, the stakeholder satisfaction assessment of board operations achieved a score of 89 points.

Operation of Specialized Subcommittees

KOWEPO has expanded and refined its specialized subcommittees to actively leverage the expertise of non-executive directors. Previously consisting of three specialized subcommittees focused on environment, mutual growth, and audit, the structure was reorganized to include safety and security, financial strategy, and business development, increasing the total number of subcommittees to six. To enhance non-executive director participation, the meeting frequency was changed from a quarterly schedule to an as-needed basis. Additionally, an internal evaluation metric, 'Commitment to Activating Specialized Subcommittees,' was introduced to further utilize the expertise of non-executive directors. As a result, the number of management recommendations made by board members significantly increased from 38 to 63, and the number of recommendations incorporated into business operations rose from 31 to 56.

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Environment

Advancing Environmental Management

Climate Change Response

Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

Enhancing Industrial Safety and Health

Enhancing Employee Value and Engagement

Promoting a Culture of Human Rights Respect

Supply Chain Management and Mutual Growth

Revitalizing Local Communities

Strengthening Information Security

Governance

→ Governance

Advancing Ethical Management

Risk Management

ESG Data

Appendix

Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Appendix



Governance

Performance

Audit Committee

KOWEPO operates an Audit Committee in accordance with Article 20 of the Act on the Operation of Public Institutions. To ensure organizational independence, two out of the three committee members are appointed as non-executive directors, and an internal audit body has been established under the direct authority of the Audit Committee, separate from the executive branch.

ESG Committee

The ESG Committee was established in 2021 and consists of three non-executive directors and two executive directors. It is responsible for advising on ESG management strategies and related business plans, conducting prior reviews of ESG-related board resolutions, and deliberating on key ESG management issues. The committee enhances the company's resilience to external risks and supports the Board of Directors in making decisions that drive sustainable corporate growth.

Key Activities of the ESG Committee

Meeting Date	Agenda Items	Resolutions
April 13, 2023	Report on 2022 ESG Management Performance	Original Proposal Received
June 29, 2023	Report on the Implementation Plan for Energy-Intensive Industry and Building Efficiency Improvement Projects	Original Proposal Received
August 25, 2023	Report on the Status and Plans for Establishing a Mutual Growth Economic Ecosystem Contributing to Social and Public Development	Original Proposal Received
October 24, 2023	Report on WP's Carbon Neutral Management Plan to Achieve the 2030 National Greenhouse Gas Reduction Target	Original Proposal Received
November 23, 2023	Report on the Implementation Status and Future Plans for Enhancing Internal Integrity	Original Proposal Received
April 26, 2024	Report on WP's Strategy for Promoting Hydrogen and Ammonia Power Generation	Original Proposal Received
June 27, 2024	Report on WP's Improvement Plan for Internal Integrity in 2024 (Draft)	Original Proposal Received
August 29, 2024	Report on WP's Rolling Plan for Promoting ESG Management (Draft)	Original Proposal Received

Advancing Ethical Management

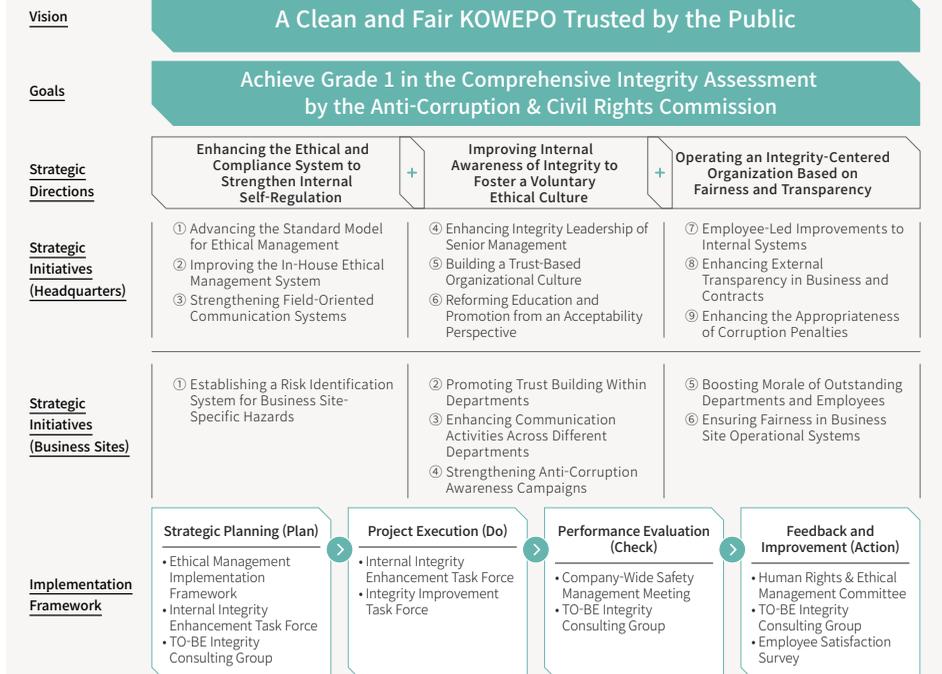
Framework

Integrity and Ethical Management Framework

KOWEPO has established an Integrity and Ethical Management Framework to lead ethical corporate practices and foster trust-based communication with all stakeholders. With the goal of achieving Grade 1 in the Comprehensive Integrity Assessment by the Anti-Corruption and Civil Rights Commission, KOWEPO has defined three key strategic directions: strengthening internal self-regulation, fostering a voluntary ethical culture, and operating a fair and transparent organizational culture. These directions have been further detailed into nine specific action plans. To ensure that the company's ethical management principles are embedded at the business unit level, KOWEPO has introduced six ethical activity guidelines tailored to each site and implemented 25 site-specific action plans. Additionally, to reinforce ethical practices at an individual level, KOWEPO has established an Ethical Code of Conduct and Ethical Charter, which are publicly available on its website.

- Code of Integrity and Ethics for Employees
- KOWEPO Employee Creed
- Employee Creed Implementation Standards

Integrity and Ethical Management Implementation Framework



Advancing Ethical Management

Management Organization

Ethical Management Organization and Framework

KOWEPO’s Board of Directors oversees all aspects of ethical management, including conflict of interest prevention and internal control systems. Internally, ethical management is structured into four functional groups based on roles and responsibilities: deliberation and resolution, dedicated teams, task forces (TF), and counseling/reporting units. Each business site designates ethics officers, responsible personnel, and counselors to ensure employees can seek assistance whenever necessary. Additionally, KOWEPO consults with external bodies such as Integrity Ombudsmen and the Anti-Corruption Citizen Audit Group for expert guidance on ethical management issues. The company also safeguards whistleblowers within the organization, ensuring protection from retaliation and other risks.

Ethical Management Organizational Structure and Roles

Category	Responsible Organization	Key Details
Deliberation & Resolution	Board of Directors	Verification of the annual ethical management initiatives and audit plans/results
	Human Rights & Ethics Management Committee	Deliberation and resolution on the establishment and revision of internal policies related to human rights and ethical management
Dedicated Organization	Ethical Management Office, Audit & Inspection Office	Company-wide oversight of ethical management (preventive management, post-audit, and recurrence prevention)
Task Force (TF) Teams	Integrity Enhancement TF	Development and implementation of effective initiatives with the participation of MZ generation employees
	Labor-Management Joint System Improvement TF	Labor-management consultation on improving unfair practices in HR, labor relations, and welfare policies
Consultation & Reporting	Ethics Center, Human Rights Center	Supervision of ethical and human rights consultation, reporting, and human rights violation redress procedures

Ethical Management Organizational Structure



Risk Management

ISO 37301 Certification

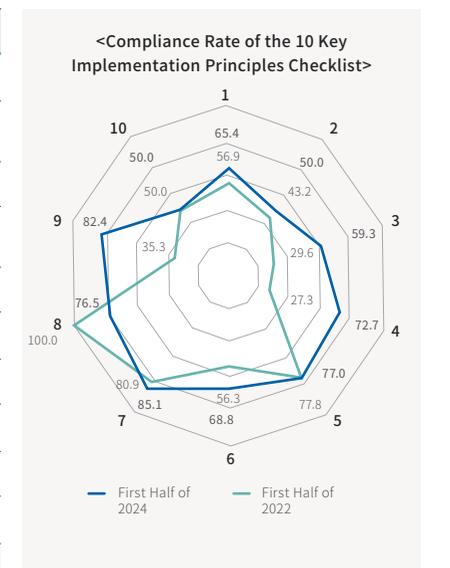
To proactively address ethical management and compliance risks, KOWEPO obtained ISO 37301 (Compliance Management System) certification in August 2023. ISO 37301 is an international standard that evaluates whether a company’s compliance management system meets global standards. Following its acquisition of ISO 37001 (Anti-Bribery Management System) from 2017 to 2022, KOWEPO newly obtained ISO 37301 in 2023, further enhancing its ability to manage potential compliance risks at a global level.

Target Management

Assessment of Comprehensive Integrity Evaluation and Implementation Rate of the Standard Model

KOWEPO manages relevant evaluation indicators to assess the level of ethical management. Since 2021, the company has set the achievement of Grade 1 in the Comprehensive Integrity Evaluation by the Anti-Corruption and Civil Rights Commission of Korea as a key objective. To achieve this, KOWEPO conducts an annual diagnostic assessment based on evaluation results and implements tailored corrective measures. Additionally, as part of internal assessments, the company has adopted an Ethical Management Standard Model consisting of 300 checklist items to conduct self-evaluations and improve the implementation of ethical management practices.

10 Key Implementation Principles of the Ethical Management Standard Model	Items	Check list
1. Establishing Ethical Awareness: Building an ethical management system led by top management	17	52
2. Developing a Management Framework: Enhancing appropriate delegation of authority and supervisory responsibility	16	44
3. Identifying Ethical Risks: Identifying risk factors and quantifying risk levels	9	27
4. Responding to Environmental Changes: Being sensitive to external changes and ensuring stability amid leadership transitions	6	11
5. Establishing Control Activities: Designing appropriate countermeasures for each ethical risk	20	61
6. Selecting Control Procedures: Choosing control activities and conducting periodic effectiveness evaluations	7	16
7. Internal Communication: Establishing a whistleblowing system that guarantees confidentiality	18	47
8. External Communication: Opening communication channels for external stakeholders	6	17
9. Monitoring Ethical Management: Conducting objective and independent monitoring	8	17
10. Improving Ethical Management: Timely resolution of ethical management issues	5	8
Total	112	300



Overview

Sustainable Future Story

ESG Management

ESG Factbook

Environment

Advancing Environmental Management

Climate Change Response

Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

Enhancing Industrial Safety and Health

Enhancing Employee Value and Engagement

Promoting a Culture of Human Rights Respect

Supply Chain Management and Mutual Growth

Revitalizing Local Communities

Strengthening Information Security

Governance

Governance

→ Advancing Ethical Management

Risk Management

ESG Data

Appendix



Advancing Ethical Management

Performance

Improvement in the Comprehensive Integrity Evaluation by the Anti-Corruption and Civil Rights Commission

In 2023, KOWEPO achieved Grade 2 in the Comprehensive Integrity Evaluation by the Anti-Corruption and Civil Rights Commission, marking a two-level improvement from Grade 4 in 2022. The Comprehensive Integrity Score consists of Perceived Integrity and Integrity Efforts, with Perceived Integrity further divided into Internal and External Integrity. In 2022, KOWEPO aimed to improve its low Internal Integrity by establishing the Integrity Enhancement TF, an organization dedicated to ethical management, and implementing company-wide integrity improvement initiatives. Additionally, a TO-BE Integrity Consulting Group, composed of younger employees, was formed within the TF team to encourage the active participation of younger staff in ethical management. These efforts significantly enhanced the Perceived Integrity Score, ultimately leading to the achievement of Grade 2 in the overall evaluation.

Expansion of an Anti-Corruption and Integrity Culture Led by CEO

KOWEPO actively promotes an anti-corruption and integrity culture among employees under the leadership of CEO. The company continuously distributes CEO emails and integrity letters to raise employees' awareness of ethical management. Additionally, a company-wide Safety Management Meeting, attended by the CEO, is held monthly to review improvement initiatives and implementation performance. Furthermore, the CEO directly communicates with employees on ethical management matters and delivers ethics-focused lectures for senior executives, including department heads. These initiatives demonstrate the firm commitment of top management to fostering a strong ethical management culture.

↓ Integrity and Ethics Management Policy Declaration Ceremony Held



Strengthening Ethics Training

KOWEPO has implemented the largest-scale ethics training since its founding, striving to foster a company-wide ethical culture. The company conducted in-person training and on-site visits for employees directly exposed to ethical risks or those who had insufficient ethics training, including department heads, high-risk integrity positions (such as contract management, accounting, and fuel/material procurement, as defined by the 'Integrity Position and Job Management Standards'), and employees who joined during the COVID-19 period. Additionally, mandatory online compliance training was provided to all employees. Simultaneously, KOWEPO utilized online education and participatory learning through an integrity musical performance to enhance employee engagement in ethics training.

2023 Ethics Training Implementation Results

Training Program	Target Participants	Attendees	Completion Rate
Company-Wide Employee Training	2,769	2,651	95.7%
Face-to-Face Training for Senior Executives	50	50	100%
Face-to-Face Training for New and Promoted Employees	138	133	96.4%

↓ Integrity Musical Performed Addressing Internal Corruption



Advancing Ethical Management

Performance

Conflict of Interest Prevention

The Government of the Republic of Korea enforces the Conflict of Interest Prevention Act to prohibit public officials from pursuing private interests during official duties. KOWEPO strictly complies with this law and has been proactively implementing leading conflict of interest prevention initiatives. To eradicate improper profit-seeking activities during public duties and strengthen workplace discipline, the company established the ‘Concurrent Employment Prohibition and Approval Management Standards.’ In addition, KOWEPO conducts preemptive inspections of potential conflicts of interest related to employee recruitment, post-retirement employment, private contracts, and real estate ownership and transactions, significantly reducing the risk of conflicts. Moreover, KOWEPO has cultivated response capabilities by developing and implementing new educational content on the Conflict of Interest Prevention Act across the organization, and by conducting conflict of interest simulation exercises. As a result of these efforts, KOWEPO achieved a score of 99.1 in the conflict of interest prevention category of the 2023 Integrity Evaluation, ranking among the highest-performing public enterprises. To date, the company has maintained a zero-incidence record for corruption related to conflicts of interest.

Initiatives to Eliminate Power Abuse

In accordance with government directives such as the ‘Comprehensive Measures to Eradicate Power Abuse in the Public Sector’ and the ‘Guidelines for Eradicating Power Abuse in Public Institutions,’ KOWEPO has set the goal of ‘Fulfilling Public Institutions’ Social Responsibility by Eliminating Power Abuse and Unfair Practices.’ To achieve this, the company has implemented five key strategies: strengthening preventive measures, enhancing monitoring and reporting, reinforcing penalties and sanctions, supporting victim protection and recovery, and promoting a culture of power abuse eradication. Additionally, KOWEPO is actively advancing 16 key initiatives to enhance integrity, 8 initiatives to foster a sound corporate culture, and 12 initiatives for human rights management, leading the way in realizing ethical and integrity values. As a result of these efforts, the number of disciplinary actions related to power abuse, which stood at three cases in 2019, has been successfully maintained at zero from 2021 to 2023.

Anti-Corruption and Integrity Center

KOWEPO operates an Anti-Corruption and Integrity Center on its official website, enabling not only direct victims but also all stakeholders who witness corporate corruption to report such incidents. A corruption reporting channel is available, allowing anyone to report misconduct through in-person visits, mail, email, the internet, or the company’s internal system. Additionally, a public interest reporting channel has been established to receive reports on existing or potential violations that may harm the public interest. Furthermore, KOWEPO facilitates stakeholder oversight and reporting for ethical management by accepting reports on fraudulent claims involving public funds, budget misuse, passive administration, contract violations, illegal subcontracting, and breaches of the Anti-Graft Act.

Risk Management

Framework

Risk Management System

Management of the Key Risk Indicator (KRI) System

KOWEPO has established and systematically manages enterprise-wide Key Risk Indicators (KRI) to proactively respond to management risks. These indicators are categorized into financial and general risks and comprise five key areas and 29 core risk indicators. Additionally, scenario plans tailored to each risk level are developed and implemented. In particular, financial risks are managed by designating factors that could impact the achievement of mid- to long-term financial goals as key risk indicators.

Key Risk Indicator Management

Financial Risk Management	Category	Key Risk Indicators
Market Risk	Market Risk	Exchange Rate, Interest Rate, Bituminous Coal Unit Cost Reduction Rate
Financial Risk	Stability	Financial Soundness, Target Achievement Rate (Integration of six indicators, including debt ratio)
	Profitability	
	Growth Potential	Revenue (Electricity Sales Revenue, Overseas Business)
Investment Risk	Activity	Total Asset Turnover Ratio
	Profitability	Net Profit Margin (Domestic General/Renewable Energy, Overseas) Investment Project History Management
General Risk Management	Category	Key Risk Indicators
Business Risk	Power Generation Operations	Failure Shutdown Rate, Facility Utilization Rate, Optimal Stock Level of Bituminous Coal
	Renewable Energy Operations	Renewable Energy Generation, Amount of Money Transferred for RPS Provisions
	Disaster & Safety	Disaster Management Rate, Industrial Accident Prevention Effort Index
	Construction	Construction Progress Rate (Domestic, Renewable Energy)
Policy Risk	Employment Policy	Job Creation
	Environmental Policy	Fine Dust Reduction Rate, Greenhouse Gas Emissions Allowances Compliance Rate
	Innovation & Growth	Implementation Rate of Five Core Technology Developments, Information Security Management Level, Performance Management of Digital/Green/Human New Deal Businesses
	Ethical Management	Integrity & Ethics

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

- Governance
- Advancing Ethical Management

Risk Management

Framework

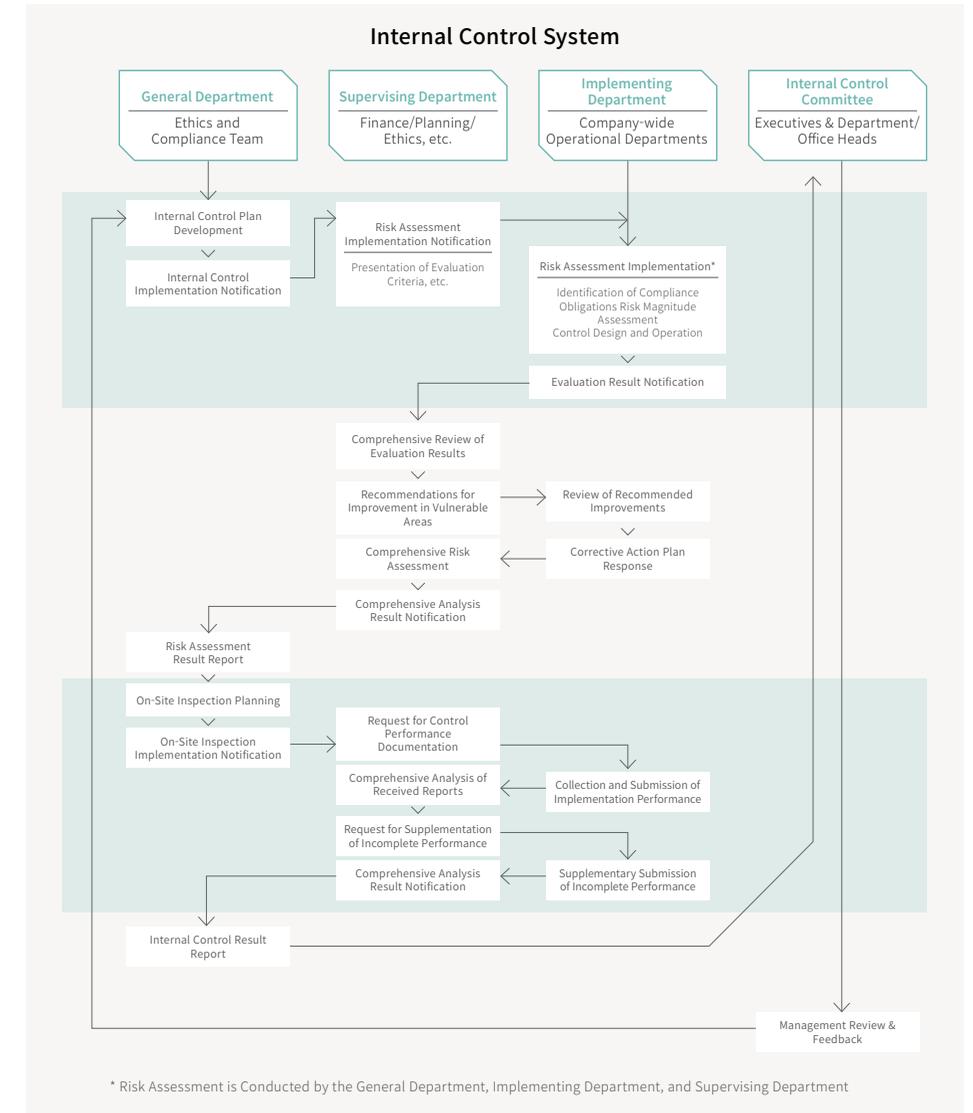
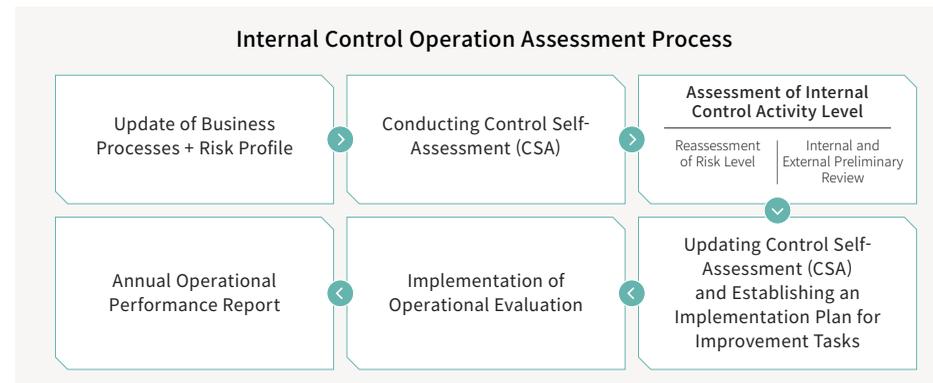
Risk Management System

Management of the Key Risk Indicator (KRI) System

Category	Exchange Rate Level	Scenario
Caution (Yellow)	Exchange rate of the 5-day average crosses the 20-day line	Strengthen market monitoring
Alert (Orange)	Exchange rate rises by more than 1% after the 5-day average crosses the 20-day line	Review preemptive foreign exchange hedging execution
Critical (Red)	Exchange rate rises by more than 3% after the 5-day average crosses the 20-day line	Review and implement additional foreign exchange hedging

Advancement of the Internal Control System

KOWEPO has established an advanced internal control system based on the public sector internal control guidelines. The internal control system categorizes operations into six areas: power generation operations, construction, new business development, renewable energy/overseas, safety, and management support. Risks for each business unit have been identified and structured according to industry classifications. Additionally, to instill the importance of risk management among all employees, KOWEPO has piloted an internal control system and developed customized online training programs tailored to different progress levels, making participation mandatory.



Risk Management

Management Organization

Risk Management Organization

KOWEPO operates a dedicated risk management department and a separate internal control and internal accounting department to comprehensively address potential risks across the organization. The Financial Budget Office oversees overall risk management, while the Enterprise Risk Management Committee, Foreign Exchange Risk Management Committee, and Business Development Review Committee specialize in addressing risks in their respective areas. Meanwhile, the Ethics and Compliance Team is responsible for internal control and internal accounting. To ensure that executives and senior management can oversee risk management within their respective departments, the Internal Control Council and the Internal Control Committee are in operation.

Risk Management Organization		
Category		Role
Risk Management	Enterprise Risk Management Committee	Preliminary review of risk factors in new investment projects and validation of feasibility
	Foreign Exchange Risk Management Committee	Review and resolution of foreign exchange risk management plans, hedge ratio settings, etc.
	Business Development Review Committee	Deliberation on the suitability of domestic and international joint venture projects
Internal Control and Internal Accounting	Internal Control Working Council	Implementation of objective evaluations on overall risk management
	Internal Control Committee	Reassessment of management risks and determination of whether to incorporate change management measures

Risk Management

Foreign Exchange Risk Management

KOWEPO has established and operates foreign exchange risk management measures to address fluctuations in foreign currency bond amounts and accounts payable caused by exchange rate volatility. The company has implemented a foreign exchange transaction system and consults with external foreign exchange experts to enhance risk management strategies. Additionally, KOWEPO convenes the Foreign Exchange Risk Management Committee once per quarter to monitor risk factors and implement appropriate countermeasures.

Enhancement of the Internal Accounting Control System

KOWEPO operates an Internal Accounting Management System in accordance with Article 8 of the Act on External Audit of Stock Companies and has established an internal control system that aligns with the 'Public Sector Internal Control Guidelines' issued by the Board of Audit and Inspection in October 2023. In particular, the financial sector ensures the reliability of externally disclosed financial statements and minimizes financial risks by preventing accounting errors through the Internal Accounting Management System. Additionally, KOWEPO has implemented a smart internal accounting management system to enhance the efficiency of financial risk management while improving the objectivity and reliability of financial information.

Response to Fuel Cost Volatility

KOWEPO primarily uses bituminous coal as its main power generation fuel. Since the supply and demand of bituminous coal are highly influenced by global refining trends and market conditions, proactive measures are necessary to prevent risks in procurement processes, including purchasing and transportation. To address this, KOWEPO continuously monitors the bituminous coal procurement system and strengthens its global network to ensure an immediate response to changes in the coal market. Additionally, KOWEPO develops and manages scenario-based purchasing strategies for the bituminous coal market to proactively identify and mitigate potential risks.

Equity Investment Risk Management

With the increasing development of equity investment-based projects, KOWEPO manages risks associated with potential financial instability of invested companies. To mitigate these risks, KOWEPO has strengthened the verification process for investment projects, enhanced pre-screening procedures, and prioritized investments in highly profitable companies, such as renewable energy firms and overseas enterprises, thereby minimizing risks related to investments in financially unstable businesses.

Response to Environmental Regulatory Policies

KOWEPO proactively identified potential challenges in meeting the Renewable Portfolio Standard (RPS) compliance rate due to the sharp increase in spot market prices of Renewable Energy Certificates (REC). In response, the company took measures to increase its own REC acquisition by ensuring the timely completion of new facilities and optimizing power generation management. Additionally, upon recognizing the rising costs of emission allowances, KOWEPO immediately implemented a phased purchasing strategy and secured additional free allocations to minimize expenses.

Advancing Environmental Management

Climate Change Response

Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Enhancing Industrial Safety and Health

Enhancing Employee Value and Engagement

Promoting a Culture of Human Rights Respect

Supply Chain Management and Mutual Growth

Revitalizing Local Communities

Strengthening Information Security

Governance

Advancing Ethical Management

Risk Management

ESG Data

Environment

Greenhouse Gas(GHG) Emissions

Category		Unit	2021	2022	2023
GHG emissions	Scope 1 (direct emissions)*	tCO ₂ eq	33,198,352	29,970,540	29,059,648
	Scope 2 (indirect emissions)	tCO ₂ eq	159,888	188,693	237,994
	Scope 3 (all other indirect emissions)**	tCO ₂ eq	6,668,715	6,232,383	3,446,586
GHG emissions reduction (reduction from previous year to current year)					
	Reduction amount (Scope 1+2)	tCO ₂ eq	-2,935,648	3,199,007	861,592
GHG emissions intensity***	Scope 1 (direct emissions)	tCO ₂ eq / KRW 100 million	668.0	369.4	420.2
	Scope 2 (indirect emissions)	tCO ₂ eq / KRW 100 million	3.2	2.3	3.4
	Scope 3 (all other indirect emissions)	tCO ₂ eq / KRW 100 million	134.2	76.8	49.8
Implementation performance of the K-ETS	Allocation amount****	10,000 tCO ₂ eq	2,723	2,723	2,723
	Emissions amount*****	10,000 tCO ₂ eq	3,336	3,015	2,930

* 2021 Reporting scope: Headquarters, Taean Thermal Power Complex Division, Pyeongtaek Thermal Power Complex Division, Seoincheon Combined Cycle Power Complex Division, Gunsan Combined Cycle Power Division, Gimpo Combined Heat & Power Division (6 sites)

2022 Reporting scope: Headquarters, Taean Thermal Power Complex Division, Pyeongtaek Thermal Power Complex Division, Seoincheon Combined Cycle Power Complex Division, Gunsan Combined Cycle Power Division, Gimpo Combined Heat & Power Division, Gumi Power Plant Construction Division (7 sites)

2023 Reporting scope: Headquarters, Taean Thermal Power Complex Division, Pyeongtaek Thermal Power Complex Division, Seoincheon Combined Cycle Power Complex Division, Gunsan Combined Cycle Power Division, Gimpo Combined Heat & Power Division, Gumi Power Plant Construction Division, Yeosu Construction Office, Gongju Power Plant Construction Division (9 sites)

** 2021-2023 Reporting scope: 1. Purchased goods and services 2. Capital goods 3. Fuel and energy-related activities 4. Upstream transportation and distribution 5. Waste generated in operations 6. Business travel 7. Employee commuting 9. Downstream transportation and distribution 15. Investments

*** GHG emission intensity: Current year emissions / Revenue (based on separate business report)

**** Emission Trading Scheme (Allocation) Calculation: Based on the government's initial free allocation benchmarks, data revised

***** Emissions submitted to the Ministry of Environment + offset emissions

Energy

Category	Unit	2021	2022	2023
Energy consumption*	TJ	421,259	340,718	363,987

* 2021 Reporting scope: Headquarters, Taean Thermal Power Complex Division, Pyeongtaek Thermal Power Complex Division, Seoincheon Combined Cycle Power Complex Division, Gunsan Combined Cycle Power Division, Gimpo Combined Heat & Power Division (6 sites)

2022 Reporting scope: Headquarters, Taean Thermal Power Complex Division, Pyeongtaek Thermal Power Complex Division, Seoincheon Combined Cycle Power Complex Division, Gunsan Combined Cycle Power Division, Gimpo Combined Heat & Power Division, Gumi Power Plant Construction Division (7 sites)

2023 Reporting scope: Headquarters, Taean Thermal Power Complex Division, Pyeongtaek Thermal Power Complex Division, Seoincheon Combined Cycle Power Complex Division, Gunsan Combined Cycle Power Division, Gimpo Combined Heat & Power Division, Gumi Power Plant Construction Division, Yeosu Construction Office, Gongju Power Plant Construction Division (9 sites)

Air Pollutants

Category	Unit	2021	2022	2023	
Amount of Air Pollutants	Nitrogen Oxides (NOx)	ton	5,607	5,473	4,460
	Sulfur Oxides (SOx)	ton	3,508	3,894	3,983
	Dust	ton	311	329*	342

* Based on the Environmental Information Disclosure System

Water

Category	Unit	2021	2022	2023
Water consumption*	ton	8,965,335	8,642,880	8,506,497
Water recycling	ton	100,022	66,315	120,215

* 2021-2022 Reporting scope: Headquarters, Gunsan Combined Cycle Power Division, Seoincheon Combined Cycle Power Complex Division, Taean Thermal Power Complex Division, Pyeongtaek Thermal Power Complex Division (5 sites)

2023 Reporting scope: Headquarters, Gunsan Combined Cycle Power Division, Seoincheon Combined Cycle Power Complex Division, Taean Thermal Power Complex Division, Pyeongtaek Thermal Power Complex Division, Gimpo Combined Heat & Power Division (6 sites)

ESG Data

Environment

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Appendix

Waste Disposal

	Category	Unit	2021	2022	2023
Amount generated*	Total amount generated	ton	1,534,349	1,256,379	1,630,638
	- General waste	ton	1,456,618	1,246,821	1,403,802
	- Designated waste	ton	1,274	1,015	1,225
	- Construction waste	ton	76,457	8,543	225,586
	- Municipal waste	ton	-	-	11
	- Others	ton	-	-	14
Amount recycled		ton	1,208,150	1,006,422	1,016,416

* Based on the Environmental Information Disclosure System: In 2023, detailed indicators for waste generated (municipal and others) were newly established in the Environmental Information Disclosure System.
 2021 - 2022 Reporting scope: Headquarters, Gunsan Combined Cycle Power Division, Seoincheon Combined Cycle Power Complex Division, Taean Thermal Power Complex Division, Pyeongtaek Thermal Power Complex Division (5 sites)
 2023 Reporting scope: Headquarters, Gunsan Combined Cycle Power Division, Seoincheon Combined Cycle Power Complex Division, Taean Thermal Power Complex Division, Pyeongtaek Thermal Power Complex Division, Gimpo Combined Heat & Power Division (6 sites)

Coal Ash and Desulfurized Gypsum

	Category	Unit	2021	2022	2023
Coal Ash	Amount generated	1,000 ton	1,397	1,221	1,091
	Amount recycled	1,000 ton	1,080	987	1,009
	Recycling rate	%	77.3	80.8	92.5
Desulfurized gypsum	Amount generated	1,000 ton	232	247	227
	Amount recycled	1,000 ton	232	247	227
	Recycling rate	%	100.0	100.0	100.0

Green Investment

	Category	Unit	2021	2022	2023
R&D investment for carbon neutrality		KRW 1 million	2,102	8,450	10,050
Green product purchase		KRW 1 million	3,729	3,858	11,665

Low-Emission Vehicles

	Category	Unit	2021	2022	2023
Ownership of low-emission business vehicles	Total number of vehicles	Units	49	53	52
	- (Type 1) Electric, hydrogen	Units	41	45	45
	- (Type 2) Hybrid	Units	8	8	7
	- (Type 3) Vehicles running on LPG, gasoline, and other fuels, all compliant with low emission standards	Units	0	0	0

Advancing Environmental Management

Climate Change Response

Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Enhancing Industrial Safety and Health

Enhancing Employee Value and Engagement

Promoting a Culture of Human Rights Respect

Supply Chain Management and Mutual Growth

Revitalizing Local Communities

Strengthening Information Security

Governance

Advancing Ethical Management

Risk Management

ESG Data

Social

Employee Status*

Category		Unit	2021	2022	2023	
No. of executives	Total no. of executives	Persons	9	9	9	
	- Standing executives	Persons	4	4	4	
	- Non-standing executives	Persons	5	5	5	
No. of workers	Total no. of workers**	Persons	2,695	2,749	2,726	
	By gender	Male	Persons	2,329	2,354	2,325
		Female	Persons	366	396	402
	By age group	Under 30 years old	Persons	614	613***	520
		Between 30 and 50 years old	Persons	1,465	1,441	1,537
		Over 50 years old	Persons	615	695	669
	By employment type	Regular workers	Persons	2,691	2,735	2,708
		Permanent contract workers	Persons	0	0	0
		Irregular workers	Persons	4	15	19
		- Full-time workers	Persons	3	14	18
- Part-time workers		Persons	1	1	1	
No. of management****	Total no. of management	Persons	713	728	723	
	Senior management	Male	Persons	4	4	4
		Female	Persons	0	0	0
	Mid-level management	Male	Persons	166	170	175
		Female	Persons	9	9	9
	Lower-level management	Male	Persons	493	502	491
Female		Persons	41	43	44	

Category		Unit	2021	2022	2023	
No. of minority executives and employees	Total no. of minority executives and employees	Persons	338	352	352	
	By type	Individuals with disabilities	Persons	95	107	106
		Family of national veteran	Persons	242	245	246
		Foreigners	Persons	0	0	0

* External workforce: 1,068 people (In-house subcontractors: 463, Subsidiary employees: 605)

** Total employees: Based on ALIO, includes regular workers, permanent contract workers, and irregular workers

*** Correction of prior year data due to errors

(2021-2022 data corrected to include irregular workers in the employee count)

**** Senior management: Executives, Middle Managers (Levels 1-2), Junior Managers (Level 3)

ESG Data

Social

Employment Status

	Category	Unit	2021	2022	2023	
Standing executives	No. of newly employed standing executives	Persons	3	1	1	
	No. of newly employed regular workers	Persons	106	98	36	
By gender	Male	Persons	76	69	26	
	Female	Persons	30	29	10	
By age group	Under 30 years old	Persons	88	85	30	
	Between 30 and 50 years old	Persons	17	13	6	
	Over 50 years old	Persons	1	0	0	
Regular workers	Youth (aged under 34)	Persons	98	93	35	
	Individuals with disabilities	Persons	7	3	2	
	Family of national veteran	Persons	14	5	4	
	By type	High school graduates	Persons	14	4	2
		Talented people from non-metropolitan areas	Persons	60	54	20
		Talented people from communities near headquarters	Persons	23	25	9
		No. of newly hired permanent contract workers	Persons	0	0	0
Youth intern	No. of youth intern employment	Persons	186	208	109	
	- Experience type	Persons	186	208	109	
	- Recruit type	Persons	0	0	0	

Turnover & Retirement Status

	Category	Unit	2021	2022	2023	
Turnover & Retirement*	No. of turnovers & retirees	Persons	77	60	66	
	By gender	Male	Persons	74	56	61
		Female	Persons	3	4	5
	By age group	Under 30 years old	Persons	13	10	12
		Between 30 and 50 years old	Persons	11	11	8
		Over 50 years old	Persons	53	39	46
	By position	Managers	Persons	10	8	8
		Non-managers	Persons	67	52	58
	By type	Voluntary turnover & retirement	Persons	33	29	25
		Retirement	Persons	39	28	40
		Dismissal	Persons	0	0	0
		Retirement (due to death)	Persons	0	2	0
		Term expiration (contract workers, executives)	Persons	5	1	1

* Number of turnover & retirement: Includes regular workers who resigned due to voluntary retirement, mandatory retirement, company-initiated resignation, and other reasons

ESG Data

Social

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Appendix



Turnover & Retirement Status

Category		Unit	2021	2022	2023	
Voluntary turnover & retirement**	No. of voluntary turnovers & retirees	Persons	33	29	25	
	By gender	Male	Persons	30	26	22
		Female	Persons	3	3	3
	By age group	Under 30 years old	Persons	13	10	12
		Between 30 and 50 years old	Persons	10	10	8
		Over 50 years old	Persons	10	9	5
	By position	Managers	Persons	5	7	7
		Non-managers	Persons	28	22	18
	Average years of service***	Average	Months	168	170	177
		- Male	Months	176	179	185
- Female		Months	115	118	128	

** Number of turnover & retirement: Employees who voluntarily resigned, excluding retirement, dismissal, expulsion, and contract expiration

*** Average years of service calculation criteria: Changed to average years of service for regular full-time workers as disclosed in ALIO

Parental Leave

Category		Unit	2021	2022	2023	
Maternity leave	No. of employees taking maternity leave (childbirth-related)	Persons	18	22	22	
	No. of employees taking paternity leave (childbirth-related)	Persons	67	63	64	
	No. of employees taking parental leave (for childcare purposes)	Persons	90	104	100	
Parental leave	By gender	Female	Persons	63	66	62
		Male	Persons	27	38	38
	Return-to-work rate after parental leave*	%	78	84	80	
	By gender	Female	%	79	77	76
Male		%	78	95	82	
One-year retention rate after returning from leave**	%	80	79	85		
By gender	Female	%	65	64	77	
	Male	%	89	88	96	

* Return rate after parental leave = (Number of employees who actually returned in the current year / Number of employees scheduled to return in the current year) * 100

** One-year retention rate after returning from leave: Percentage of previous year's returnees employed through December 31st of the current year

ESG Data

Social

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Environment

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

Social

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

Governance

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Appendix



Employee Training

Category		Unit	2021	2022	2023	
Training hours	Total training hours*	Hours	281,259	327,163	307,529	
	Average traing hours per person**	Hours	119	123	127	
	By position	Senior executives (level 1 or 2)	Hours	94	111	115
		Junior executives (level 3)	Hours	114	120	124
		Employees (level 4 or below)	Hours	106	121	123
	By gender	Male	Hours	110	122	125
		Female	Hours	99	110	109
Traning cost	Total training cost***	KRW 1 million	8,229	6,990	6,913	
	Average traing cost per person	KRW 1,000	2,950	2,893	2,853	

* Total training hours: Based on completion standards of the KOWEPO training system (Do-dream)
 ** Average training hours per employee: Total training hours / Number of employees (level 1-5) at the end of the year
 *** Total training expenses = Sum of 7 training-related accounts from the Profit and Loss Statement (P/L)

Work-Life Balance

Category		Unit	2021	2022	2023
Employee support program	Flextime system	Persons	3	0	0
	Flexible work system	Persons	2,134	2,383	2,340

Collective Bargaining

Category		Unit	2021	2022	2023
Union membership status	No. of labor union members	Persons	1,894	1,917	1,896
	Labor union membership rate	%	70	70	70

Health and Safety

Company		Category	Unit	2021	2022	2023
Dedicated safety personnel			Persons	121	126	131
Employee safety training	Training participants		Persons	2,105	2,417	2,682
	Traing hours*		Hours	103,123	119,323	102,658
Safety risk assessment	No. of sites completed risk assessment		Sites	6	6	5
	No. of implemented measures after risk assessment		Cases	93	144	160
	No. of completed improvements after risk assessment		Cases	93	144	160
	No. of current improvements after risk assessment		Cases	0	0	0
Employee	Full-time workers		Persons	2,699	2,753	2,784
	No. of injured employees		Persons	4	3	1
	No. of employees with fatalities		Persons	0	0	0
	Lost Time Injury Frequency Rate (LTIFR)		Cases / 1 million hours	0.618	0.454	0.150
	Industrial accident		Persons	4,680	3,864	1,636
Partner Companies	No. of injured employees		Persons	6	4	9
	No. of employees with fatalities		Persons	0	0	0
	Death rate per ten thousand employees**		% ₀₀	0	0	0
Lost Time Injury Frequency Rate (LTIFR)***		Cases / 1 million hours	0.552	0.431	2.292	

* Data for online and offline safety training (workplace-specific and Do-dream)
 ** Death rate per ten thousand employees = (Number of Fatalities / Number of Wage Workers) * 10,000
 *** Lost workday case rate per 1,000,000 working hours: (Number of Lost Workday Cases / Total Working Hours) * 1,000,000

ESG Data

Social

Innovative Product Procurement

Category	Unit	2021	2022	2023
Purchase of innovative product	KRW 1 million	2,360	5,263	6,857
(Annually new) Designation status of innovative product	Cases	3*	5	0

* Correction of prior year data due to errors

Personal Data Protection

Category	Unit	2021	2022	2023	
Personal data protection training	Training participants	Persons	2,486	2,665	2,585
	Training completion rate	%	96	100	100
No. of personal data leakages and breaches	Cases	0	0	0	
No. of violations of the personal data protection act	Cases	0	0	0	

Mutual Growth

Category	Unit	2021	2022	2023	
Mutual growth evaluation grade	Grade	Excellent	Very Good	Excellent	
Co-prosperity cooperation projects with SMEs	Support amount	KRW 100 million	3,101	2,280	2,336
	- Purchase of goods produced by SMEs	KRW 100 million	3,051	2,243	2,308
	- Collaborative R&D	KRW 100 million	10.0	19.9	14.4
	- Quality certification	KRW 100 million	12.0	0.2	0.1
	- Marketing support	KRW 100 million	3.0	0.1	0.1
Supply chain	- Management support	KRW 100 million	18.0	15.5	13.0
	- Heavy electric machine technology development fund (loan support)	KRW 100 million	7.0	1.8	0.7
	No. of partners	Companies	1,167	905	855
Social contribution	Purchases on products produced by individuals with severe disabilities	KRW 100 million	33.9	30.0	28.2
	Volunteer activities	Cases	420	425	404
Startup support result	Volunteer hours	Hours	21,353	18,763	16,643
	Donation	KRW 100 million	102.7	141.0	162.0
Technology transfer	Startup support cases	Cases	20	20	30
	Startup support amount	KRW 100 million	4.5	2	3.5
Technology transfer	Technology transfer cases	Cases	13	35	43
	Technology Transfer Recipient Company	Companies	13	32	43

- Advancing Environmental Management
- Climate Change Response
- Reduction of Pollutant Emissions and Implementation of a Resource-Circulating Power Plant

- Enhancing Industrial Safety and Health
- Enhancing Employee Value and Engagement
- Promoting a Culture of Human Rights Respect
- Supply Chain Management and Mutual Growth
- Revitalizing Local Communities
- Strengthening Information Security

- Governance
- Advancing Ethical Management
- Risk Management

ESG Data

Governance

Board Composition

Category		Unit	2021	2022	2023
Number of BOD members	Total directors	Persons	9	9	9
	Executive directors	Persons	4	4	4
	Non-executive directors	Persons	5	5	5
BOD gender diversity	Male directors	Persons	8	8	8
	Female directors	Persons	1	1	1
Average tenure of directors		Years	2	2	1

Operation of the Board of Directors

Category		Unit	2021	2022	2023
BOD meetings	Meetings convened	Sessions	12	9	10
	Agendas discussed	Cases	65	49	48
	Approved	Cases	61	49	48
	Disapproved, amended, deferred	Cases	4	0	0
BOD attendance rate	Average BOD attendance rate	%	94	99	97
	Average attendance rate of executive directors and auditors	%	91	97	100
	Average attendance rate of non-executive directors	%	97	100	94
ESG committee	Meetings convened	Sessions	4	6	5
	Total no. of members	Persons	5	5	5
	Non-executive directors among committee members	Persons	3	3	3
Audit committee	Meetings convened	Sessions	8	8	8
	Total no. of members	Persons	3	3	3
	Non-executive directors among committee members	Persons	2	2	2

Average Remuneration of Employees, Median, and CEO Compensation

Category		Unit	2021	2022	2023
Compensation	Total CEO remuneration (base salary)	KRW 1 million	140	145	147
	Employee remuneration (median)	KRW 1 million	72	74	77
	Employee remuneration (average)	KRW 1 million	83	85	88
CEO to employee compensation ratio	Ratio of the remuneration of the CEO to the median of the remuneration of all employees	%	194	196	191
	Ratio of the remuneration of the CEO to the average of the remuneration of all employees	%	169	156	167

Human Rights / Anti-Corruption

Category		Unit	2021	2022	2023
Percentage of employees who participated in human rights / anti-corruption training (mandatory training)*		%	95	96	95
Corrupt practices and code of conduct violations		Cases	1	5	5
Disciplinary actions related to stakeholder misconduct		Actions	0	0	0

* Calculation method for percentage of employees who participated in human rights / anti-corruption training = (Number of employees completed anti-corruption, sexual harassment prevention, and disability awareness training / total number of employees subject to training)

Retirement Pension

Category		Unit	2021	2022	2023
Operating amount of retirement pension	Operating amount	KRW 1 million	46,774	45,114	42,805
Number of retirement pension subscribers	No. of subscribers by type	Persons	253	231	210
	Defined Benefit (DB)	Persons	720	746	750
	Defined Contribution (DC)	Persons			

R&D

Category		Unit	2021	2022	2023
R&D expenditure		KRW 1 million	22,061	16,471	12,390
No. of employees in the R&D		Persons	25	25	24

Appendix

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Financial Data

Business Data

GRI Index

SASB Index

TCFD Index

UN SDGs

Major Awards and Memberships

Third-Party Assurance Statement

Financial Data	90
Business Data	91
GRI Index	92
SASB Index	94
TCFD Index	95
UN SDGs	97
Major Awards and Memberships	98
Third-Party Assurance Statement	100

Financial Data

Condensed Consolidated Statements of Financial Position

	Category	Unit	2021	2022	2023
Asset	Current assets	KRW 1 million	1,378,120	2,003,502	1,446,205
	Non-current assets	KRW 1 million	9,490,965	11,661,997	11,503,570
	Total assets	KRW 1 million	10,869,085	13,665,498	12,949,775
Equity and Debt	Total equity	KRW 1 million	3,734,044	5,472,843	5,241,695
	Current liabilities	KRW 1 million	1,652,526	1,897,333	1,993,886
	Non-current liabilities	KRW 1 million	5,482,515	6,295,322	5,714,194
	Total liabilities	KRW 1 million	7,135,041	8,192,656	7,708,081

Condensed Consolidated Statements of Income

	Category	Unit	2021	2022	2023
Sales		KRW 1 million	5,001,633	8,177,379	6,958,843
Cost of sales		KRW 1 million	4,949,450	7,852,774	6,657,172
Sales and administrative expenses		KRW 1 million	97,205	95,450	101,948
Operating profit (loss)		KRW 1 million	-45,022	229,155	199,723
Other income		KRW 1 million	6,038	5,876	6,445
Other expenses		KRW 1 million	10,161	18,838	46,956
Other gains (losses)		KRW 1 million	-17,826	104	-20,960
Financial income		KRW 1 million	106,302	227,951	150,314
Financial costs		KRW 1 million	260,984	295,613	225,516
Profit (loss) from investments in associates and joint ventures		KRW 1 million	52,776	79,373	106,034
Net income before tax (loss)		KRW 1 million	-168,877	228,008	169,084
Corporate tax expense (income)		KRW 1 million	-47,498	17,734	5,948
Net income (loss)		KRW 1 million	-121,379	210,274	163,136
Other comprehensive income		KRW 1 million	124,487	1,528,729	-49,527
Total comprehensive income		KRW 1 million	3,108	1,739,003	113,609

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

→ Financial Data

Business Data

GRI Index

SASB Index

TCFD Index

UN SDGs

Major Awards and Memberships

Third-Party Assurance Statement

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Financial Data

→ **Business Data**

GRI Index

SASB Index

TCFD Index

UN SDGs

Major Awards and Memberships

Third-Party Assurance Statement

Business Data

Installed Capacity by Source

	Category	Unit	2021	2022	2023
Steam power	Bituminous coal	MW	6,100	6,100	6,100
	LNG	MW	1,400	1,400	1,400
Combined cycle power	LNG	MW	3,387	3,387	3,737
Renewable Energy	Photovoltaic	MW	48	48	48
	Wind	MW	34	34	34
	Small hydro	MW	7	7	7
New Energy	Fuel cell	MW	119	181	199
	IGCC	MW	346	346	346
	Energy Storage System (ESS)	MW	26	26	26
Total		MW	11,467	11,529	11,897

Efficiency of Power Generation Facilities

	Category	Unit	2021	2022	2023
Utilization rate of power generation facilities		%	46.9	43.3	39.9
Thermal efficiency of power generation facilities		%	40.9	41.0	40.4
Station service power ratio		%	5.7	5.9	5.7

Power Generation by Source

	Category	Unit	2021	2022	2023
Steam power	Bituminous coal	MW	31,593,400	29,220,477	28,163,032
	LNG	MW	1,176,921	1,377,345	878,108
Combined cycle power	LNG	MW	11,307,679	10,209,954	10,179,226
Renewable Energy	Photovoltaic	MW	58,014	58,371	48,760
	Wind	MW	29,511	45,408	40,838
	Small hydro	MW	8,607	9,389	10,372
New Energy	Fuel cell	MW	667,739	720,982	1,218,573
	IGCC	MW	2,190,755	1,964,827	996,517
Total		MW	47,032,626	43,606,753	41,535,432

Efficiency of Power Generation

	Category	Unit	2021	2022	2023
Forced outage rate		%	0.013	0.021	0.061

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Financial Data

Business Data

→ **GRI Index**

SASB Index

TCFD Index

UN SDGs

Major Awards and Memberships

Third-Party Assurance Statement

GRI Index

Universal Standards

Statement of use	KOWEPO has prepared its performance from 2022.1.1 to 2023.12.31 in accordance with GRI Standards 2021.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard	As of the date of publication of this report, GRI Sector Standards corresponding to KOWEPO's industry group have not been issued. Therefore, GRI Sector Standards were not applied.

GRI 2 : General Disclosures 2021

Topic	No.	Disclosure	Page
The organization and its reporting practices	2-1	Organizational details	5, 6, 8-10
	2-2	Entities included in the organization's sustainability reporting	1
	2-3	Reporting period, frequency and contact point	1
	2-4	Restatements of information	Separate footnote notation
	2-5	External assurance	100
Activities and workers	2-6	Activities, value chain and other business relationships	5
	2-7	Employees*	83
	2-8	Workers who are not employees	83
Governance	2-9	Governance structure and composition	73-75
	2-10	Nomination and selection of the highest governance body	73-74
	2-11	Chair of the highest governance body	73
	2-12	Role of the highest governance body in overseeing the management of impacts	37
	2-13	Delegation of responsibility for managing impacts	37
	2-14	Role of the highest governance body in sustainability reporting	37
	2-15	Conflicts of interest	75-78

GRI 2 : General Disclosures 2021

Topic	No.	Disclosure	Page
Governance	2-16	Communication of critical concerns	37-39
	2-17	Collective knowledge of the highest governance body	73
	2-18	Evaluation of the performance of the highest governance body	Disclosed in the business report
	2-19	Remuneration policies	Disclosed in the business report
	2-20	Process to determine remuneration	Disclosed in the business report
	2-21	Annual total compensation ratio	88
	2-22	Statement on sustainable development strategy	3-4
Strategy, policies and practices	2-23	Policy commitments	42, 55, 62, 75
	2-24	Embedding policy commitments	42-45, 55-59, 60-61, 75-78
	2-25	Processes to remediate negative impacts	60-61, 64
	2-26	Mechanisms for seeking advice and raising concerns	77-78
	2-27	Compliance with laws and regulations	30, 75-79
Stakeholder engagement	2-28	Membership associations	99
	2-29	Approach to stakeholder engagement	40
	2-30	Collective bargaining agreements	60-61

* External workforce: 1,068 people (In-house subcontractors: 463, Subsidiary employees: 605)

GRI 3: Material Topics 2021

Topic	No.	Disclosure	Page
Disclosures on material topics	3-1	Process to determine material topics	38
	3-2	List of material topics	39

GRI Index

Topic Specific Standards

Material Topics

Topic	No.	Disclosure	Page
Strengthening Climate Change Response	3-3	Management of material topics	
	305-1	Direct (Scope 1) GHG emissions	81
	305-2	Energy indirect (Scope 2) GHG emissions	81
GRI 305: Emissions	305-3	Other indirect (Scope 3) GHG emissions	81
	305-4	GHG emissions intensity	81
	305-5	Reduction of GHG emissions	81
Expanding Clean Energy Deployment	3-3	Management of material topics	
GRI 302: Energy	302-1	Energy consumption within the organization	81
Managing Air Pollutant Emissions	3-3	Management of material topics	
	GRI 305: Emissions	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions
Enhancing Industrial Safety and Health	3-3	Management of material topics	
	403-1	Occupational health and safety management system	56
GRI 403: Occupational Health and Safety	403-2	Hazard identification, risk assessment, and incident investigation	56-59
	403-3	Occupational health services	57-59
	403-4	Worker participation, consultation, and communication on occupational health and safety	56-59
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	57-59
	403-9	Work-related injuries	86
Creating Future Growth Drivers	3-3	Management of material topics	
Non-GRI			18-22, 46-51

Non-material Topics

Topic	No.	Disclosure	Page
Economic performance	201-1	Direct economic value generated and distributed	90
	201-2	Financial implications and other risks and opportunities due to climate change	95-96
Indirect economic impacts	203-1	Infrastructure investments and services supported	68-71
	205-1	Operations assessed for risks related to corruption	75-78, 88
Anti-corruption	205-2	Communication and training about anti-corruption policies and procedures	75-78
	205-3	Confirmed incidents of corruption and actions taken	88
Water and effluents	303-1	Interactions with water as a shared resource	53
	303-5	Water consumption	81
Waste	306-2	Management of significant waste-related impacts	53-54
	306-3	Waste generated	53-54, 82
	306-4	Waste diverted from disposal	53-54, 82
Employment	306-5	Waste directed to disposal	82
	401-1	New employee hires and employee turnover	84-85
Training and education	401-3	Parental leave	61-62, 85
	404-1	Average hours of training per year per employee	86
Diversity and equal opportunity	404-2	Programs for upgrading employee skills and transition assistance programs	61-62
	405-1	Diversity of governance bodies and employees	83, 88
Local communities	413-1	Operations with local community engagement, impact assessments, and development programs	68-71

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Financial Data

Business Data

→ **GRI Index**

SASB Index

TCFD Index

UN SDGs

Major Awards and Memberships

Third-Party Assurance Statement

SASB Index

SASB (Sustainability Accounting Standards Board) is a non-profit organization established in 2011. SASB provides industry-specific disclosure standards for material sustainability information to facilitate corporate information disclosure and enhance comparability among companies. SASB classifies industries into a total of 77 sectors, and Korea Western Power falls under the Electric Utilities & Power Generators sector.

Electric Utilities & Power Generators

Topic	Metric	code	Page
Greenhouse Gas Emissions & Energy Resource Planning	(1) Gross global Scope 1 emissions (2) Percentage covered under emissions-limiting regulations (3) Percentage covered under emissions-reporting regulations	IF-EU-110a.1	81
	Greenhouse gas (GHG) emissions associated with power deliveries	IF-EU-110a.2	81
	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	IF-EU-110a.3	46-51
Air Quality	(1) NOx (excluding N ₂ O) (2) SOx (3) Particulate Matter (PM ₁₀)	IF-EU-120a.1	81
	(1) Total water withdrawn (2) Total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	IF-EU-140a.1	81
	Number of incidents of non-compliance associated with water quality permits, standards and regulations	IF-EU-140a.2	-*
Water Management	Description of water management risks and discussion of strategies and practices to mitigate those risks	IF-EU-140a.3	53

Topic	Metric	code	Page
Coal Ash Management	(1) Amount of coal combustion products (CCPs) generated (2) Percentage recycled	IF-EU-150a.1	53-54
	Description of coal combustion products (CCPs) management policies and procedures for active and inactive operations	IF-EU-150a.3	53-54
Workforce Health & Safety	(1) Total recordable incident rate (TRIR) (2) Fatality rate (3) Near miss frequency rate (NMFR)	IF-EU-320a.1	86
	Customer electricity savings from efficiency measures, by market	IF-EU-420a.3	44-45

* Disclosed on the Environmental Information Disclosure System

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Financial Data

Business Data

GRI Index

→ SASB Index

TCFD Index

UN SDGs

Major Awards and Memberships

Third-Party Assurance Statement

TCFD Index

The Task Force on Climate-related Financial Disclosures (TCFD) was established in 2015 to develop and introduce a framework for companies to disclose climate-related financial information. In line with TCFD recommendations, KOWEPO transparently discloses climate-related corporate information and has committed to achieving Net-Zero by 2047. As a pioneering move among power generation companies, KOWEPO published its first TCFD report in 2023.

 [2023 KOWEPO TCFD Report](#)

	TCFD Proposal	Current Status
Governance	a) Describe the board’s oversight of climate-related risks and opportunities	KOWEPO established the ESG Committee within its Board of Directors in 2021 to implement a systematic and efficient climate change response strategy. The ESG Committee provides deliberation and advisory support on climate change-related issues.
	b) Describe management’s role in assessing and managing climate-related risks and opportunities	To strengthen executive responsibility and oversight in addressing climate change, KOWEPO has expanded and restructured its Carbon Neutral Task Force (T/F) into the CEO-led Carbon Neutrality Committee. The CEO serves as the Chair of the committee, overseeing and supervising the implementation of the carbon neutrality roadmap through quarterly meetings.
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	KOWEPO has identified climate change-related risks and opportunities through scenario analysis and materiality assessments. Transition risks include the expansion of paid carbon allowance allocations, production restrictions due to coal power generation caps, and the adoption of CCUS (Carbon Capture, Utilization, and Storage) technology. Physical risks include damages caused by natural disasters such as droughts, heatwaves, and heavy rainfall. On the other hand, opportunities include the development of low-carbon products and services, expansion of greenhouse gas reduction projects, and increased profits from participation in the emissions trading market.
	b) Describe the impact of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning	In terms of climate-related risks, an increase in the allocation of paid carbon allowances would lead to higher costs for purchasing emission allowances. Additionally, investment costs would be required to adopt CCUS technology and construct LNG power plants in response to the power market’s fuel transition demands. Furthermore, natural disasters such as heatwaves, heavy rainfall, and droughts could cause damage to facilities and assets, incurring restoration costs. In terms of climate-related opportunities, KOWEPO can establish new revenue models by developing low-carbon products and services, such as recycling byproducts from power generation into high-value materials. Additionally, as the demand for carbon neutrality increases, the expansion of greenhouse gas reduction projects will enable the company to secure new markets.
	c) Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	To proactively identify and mitigate climate-related risks, KOWEPO has developed a climate adaptation strategy. A vulnerability assessment is conducted to identify climate risks, and a five-year action plan has been formulated and implemented at each business site to mitigate identified risks. After implementing these measures, a feedback evaluation is conducted to assess the effectiveness of the climate adaptation strategy and incorporate the findings into future policies. Moving forward, KOWEPO will continue to enhance its climate adaptation capabilities while actively working toward greenhouse gas reduction.

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Financial Data

Business Data

GRI Index

SASB Index

→ **TCFD Index**

UN SDGs

Major Awards and Memberships

Third-Party Assurance Statement

TCFD Index

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Financial Data

Business Data

GRI Index

SASB Index

→ **TCFD Index**

UN SDGs

Major Awards and Memberships

Third-Party Assurance Statement

	TCFD Proposal	Current Status
Risk Management	a) Describe the organization’s processes for identifying and assessing climate-related risks	KOWEPO integrates climate risks into its enterprise-wide risk management system for comprehensive oversight and control. The risk management process consists of five stages: ① Scenario Setting, ② Monitoring of Key Indicators, ③ Risk Recognition, ④ Incident Occurrence, and ⑤ Implementation of Response Measures. KOWEPO monitors key indicators, such as greenhouse gas emissions, and utilizes real-time risk management functions to proactively identify and respond to climate risks. Additionally, to assess climate risks specific to each business site’s location, KOWEPO conducts a climate change adaptation vulnerability assessment across all facilities and quantitatively evaluates the impact of identified climate risks.
	b) Describe the organization’s processes for managing climate-related risks	To combat the climate crisis and achieve Net-Zero by 2047, KOWEPO has developed and is implementing the ‘WP Carbon Neutral Management Plan.’ KOWEPO has established four strategic directions for its carbon neutrality initiatives: effective greenhouse gas reduction, expansion of carbon neutrality innovation infrastructure, collaboration on carbon neutrality beyond power generation, and climate adaptation with the promotion of a low-carbon culture. Based on these directions, detailed action plans have been developed, and the Carbon Neutrality Committee and Carbon Neutrality Task Force regularly monitor the implementation status and progress of these initiatives. Additionally, to enhance climate adaptation, KOWEPO prioritizes facilities based on their vulnerability levels and establishes detailed implementation plans for each site, aligning them with the company-wide adaptation strategy.
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization’s overall risk management	KOWEPO manages carbon-related data—including power generation status, greenhouse gas emissions, emissions allowance management, and external project oversight—through its Integrated Greenhouse Gas Information System (WP-ETS). This system is linked with the company’s Enterprise Risk Management System (ERM), Early Warning System (EWS), and Executive Information System (EIS), enabling proactive responses to climate change risks.
Indicators and Goals	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	KOWEPO monitors greenhouse gas emissions as a key indicator for its headquarters and six power plants. Additionally, the company manages and discloses various climate-related indicators such as power generation, emissions intensity, and total energy consumption, reinforcing its commitment to achieving carbon neutrality.
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	KOWEPO calculates and discloses Scope 1 and Scope 2 emissions, as well as Scope 3 emissions generated across its corporate value chain. In 2023, KOWEPO recorded Scope 1 emissions of 29,059,648 tCO ₂ -eq, Scope 2 emissions of 237,994 tCO ₂ -eq, and Scope 3 emissions of 3,446,586 tCO ₂ -eq.
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	KOWEPO has identified five greenhouse gas reduction options—fuel transition, carbon-free co-firing demonstration, biomass, hydrogen power generation, and CCUS—and developed three reduction scenarios based on these options and their implementation timelines. Among them, KOWEPO has adopted the most ambitious scenario, which applies all five reduction options, aiming to reduce emissions by 47.5% by 2030 compared to 2018 levels and ultimately achieve Net-Zero by 2047. KOWEPO aims to achieve a total emissions reduction of 37.96 million tons, with 92.9% (35.27 million tons) from fuel transition, 3.9% (1.47 million tons) from hydrogen power generation, and 3.2% (1.22 million tons) from CCUS. In 2023, KOWEPO’s total greenhouse gas emissions amounted to 32,744,228 tCO ₂ -eq, achieving 48.0% of the 2030 reduction target and 22.8% of the 2047 reduction target.

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Financial Data

Business Data

GRI Index

SASB Index

TCFD Index

→ **UN SDGs**

Major Awards and Memberships

Third-Party Assurance Statement

UN SDGs

The United Nations (UN) adopted the Sustainable Development Goals (SDGs) as a global commitment to sustainable growth from 2016 to 2030. The UN SDGs consist of 17 overarching goals and 169 detailed targets, addressing universal human issues, environmental challenges, and economic and social concerns. KOWEPO is committed to aligning its business activities with the UN SDGs to contribute to the achievement of these global objectives.

UN SDGs	Key Activities
 1 No poverty	<ul style="list-style-type: none"> Climate Crisis Resilient Village Expansion of Regional City Gas Supply Community Energy Support Program
 2 Zero Hunger	<ul style="list-style-type: none"> Farm Greenhouse Gas Reduction Project
 4 Quality Education	<ul style="list-style-type: none"> Skill-Based Training Programs for Employees Operation of the Seobu Gong-gam Wipi school Support Program for At-Risk Youth Development
 5 Gender Equality	<ul style="list-style-type: none"> Work-Life Balance Culture Programs Women's Workforce Empowerment Programs
 6 Clean Water and Sanitation	<ul style="list-style-type: none"> Zero-Discharge System Implementation through Desulfurization Wastewater Evaporation & Concentration Technology
 7 Affordable and Clean Energy	<ul style="list-style-type: none"> Construction and Fuel Transition of LNG Combined Cycle Power Plants Operation of Eco-Friendly Hydrogen Fuel Cell Power Plants Commercialization of Hydrogen & Ammonia Co-Firing Power Generation Technology Utilization of Blue Hydrogen & Green Hydrogen
 8 Decent Work and Economic Growth	<ul style="list-style-type: none"> Customized Job Creation Programs for Youth, Middle-Aged, and Senior Generations Job Creation in Green and Technological Innovation Sectors
 9 Industry, Innovation and Infrastructure	<ul style="list-style-type: none"> Expansion of Environmental Investment Budget

UN SDGs	Key Activities
 10 Reduced Inequalities	<ul style="list-style-type: none"> Diversity and Equity-Based Employee Recruitment Strengthening Local Talent Recruitment Programs Gender-Balanced Executive Candidate Recommendation System
 11 Sustainable Cities and Communities	<ul style="list-style-type: none"> Establishment of Regional Disaster and Safety Management Systems Operation of Integrated Air Quality Monitoring System for Villages
 12 Responsible Consumption and Production	<ul style="list-style-type: none"> Development of Smart Integrated Environmental Management Systems Seasonal Management of Power Generation Facilities Recycling Coal Ash for Marine Structures (Wave Dissipating Blocks, Artificial Reefs) Environmental Product Declaration Certification for Power Plant Byproducts (Coal Ash, desulfurized gypsum, etc.)
 13 Climate Action	<ul style="list-style-type: none"> Environmental Risk Assessment Expert Training Development of Climate Change Adaptation Strategies
 14 Life Below Water	<ul style="list-style-type: none"> Release of Aquatic Seedlings Marine Environment Cleanup Activities Hakampo Companion Beach Program
 15 Life on Land	<ul style="list-style-type: none"> Carbon Forest Creation Project
 16 Peace, Justice and Strong Institutions	<ul style="list-style-type: none"> Conducting the Human Rights Impact Assessment Establishment of Integrity Enhancement Task Force (TF) Formulation of Internal Control Management Policies & Institutionalization of Conflict of Interest Prevention

Major Awards and Memberships

Major Awards & Recognitions

Year	Award	Awarding Institution
2024	National Service Award (Safety Management Category)	The Institute for Industrial Policy Studies
	IJ Global Awards – Project of the Year (Middle East & North Africa Renewable Energy Category)	Euromoney
	National Industry Grand Prize (Manufacturing Quality / Environmental Management Category)	The Institute for Industrial Policy Studies
	Red Cross Honorary Membership Medal	Korean Red Cross
	Grand Prize in the Excellence in Active Administration Competition	Ministry of Personnel Management
2023	Excellence Award for Climate Change Response and Carbon Neutrality Initiatives	Chungcheongnam-do Provincial Government
	Public Institution Labor-Management Innovation Award	Korea Certified Public Labor Attorneys Association
	Korea's Technology Innovation Leader (Innovation Best Practice Category)	Korea Management Association Consultants Inc.
	Outstanding Institution Award for Eulji Exercise	Ministry of Trade, Industry and Energy
	Excellence Award in Disaster Management Evaluation	Ministry of the Interior and Safety
	Global Standard Safety Management Grand Prize	Korea Management Registrar
	Korea CEO Hall of Fame (Environmental Management / Ethics & Human Rights Management Category)	The Institute for Industrial Policy Studies
	Korea Leadership Award	Korean Association for Public Administration
	Korea Innovation Management Award (Public Enterprise Category)	The Korean Academic Society of Business Administration
	2023 Korea Energy & Environmental Technology Award	Energy Economics Newspaper
2023 National Industry Grand Prize	The Institute for Industrial Policy Studies	

Year	Award	Awarding Institution
2022	2022 Excellence Award for Cybersecurity	National Intelligence Service
	2022 Global Standard Safety Management Grand Prize	Korea Management Registrar
	2022 Excellence Award in Disaster Management (Ministry of Trade, Industry, and Energy)	Ministry of Trade, Industry and Energy
	2022 Korea Energy Award	Korea Energy Agency
2021	2022 Hydrogen Award	National Assembly Hydrogen Economy Forum, Money Today
	Excellence Award for Outstanding Public Institution Safety and Health Practices	Korea Occupational Safety and Health Agency
	2022 Global Quality Management Leader Award	Korean Society for Quality Management
	2022 Korea Brand Hall of Fame (Power Generation Service Category)	The Institute for Industrial Policy Studies
	2022 National Industry Grand Prize (Manufacturing Quality Category)	The Institute for Industrial Policy Studies
2021	2021 National Industry Grand Prize (Environmental Category)	The Institute for Industrial Policy Studies
	Excellence Award for Information Disclosure Evaluation	Ministry of the Interior and Safety
	Quality Competitiveness Excellent Enterprise (Second Grade)	Ministry of Trade, Industry and Energy
	2021 National Industry Grand Prize (Manufacturing Quality Category)	The Institute for Industrial Policy Studies
	Ministerial Award for Contribution to Solving Regional Issues in Chungcheongnam-do	Ministry of the Interior and Safety
	Ministerial Award for Contribution to Regional Development	Ministry of the Interior and Safety
2020 Ministerial Award for Excellence in Senior Employment Creation	Ministry of Health and Welfare	

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Financial Data

Business Data

GRI Index

SASB Index

TCFD Index

UN SDGs

→ **Major Awards and Memberships**

Third-Party Assurance Statement

Major Awards and Memberships

Membership Associations

Social Contribution

- Korea Mecenat Association

Management Innovation

- Korea Suggestion System Association
- Korea Management Association

Power Generation Technology

- Korea Association of Machinery Industry
- Korea Electrical Manufacturers Association
- Korea Engineering & Consulting Association
- Korea Hydrogen Industry Association
- The Korean Society of Mechanical Engineers
- The Korean Institute of Electrical Engineers
- Korea Electric Engineers Association
- Korea Smart Grid Association

4th Industry

- Korean Society for Prognostics and Health Management

Management & Economy

- Korea Association of Small Business Studies
- Seosan Chamber of Commerce and Industry

Construction

- Korea Electric Association
- Korea Project Management Association
- Korean Society of Civil Engineers
- Korea Construction Engineering Management Association
- Jeonnam Wind Power Association
- Korea Institute of Plant Engineering and Construction
- Korea Society of Project Management
- Korea National Committee on Large Dams

Business Development

- Korea Plant Industries Association

Quality Innovation

- Future Innovation Research Association
- Korea Masters Association
- Korean Standards Association
- The Korean Society for Quality Management

Safety

- Korean Nurses Association
- Korea Industrial Safety Association
- Korea Education and Research Institute for Safety Economy

Disaster Management

- Korea Safety Certification Institute
- National Assembly Climate Change Forum
- Korea Carbon Capture and Storage Association
- Emissions Trading Market Council

Others

- Power Forum
- Energy Future Forum
- Korea Energy Foundation
- The Korean Society of Energy

Overview

Sustainable Future Story

ESG Management

ESG Factbook

Appendix

Financial Data

Business Data

GRI Index

SASB Index

TCFD Index

UN SDGs

→ **Major Awards and Memberships**

Third-Party Assurance Statement

Third-Party Assurance Statement

SGS KOREA CO., LTD.'S REPORT ON SUSTAINABILITY ACTIVITIES IN The Korea Western Power Co., Ltd.'s SUSTAINABILITY REPORT FOR 2024

NATURE OF THE ASSURANCE/VERIFICATION

SGS Korea Co., Ltd. (hereinafter referred to as SGS) was commissioned by Korea Western Power Co., Ltd. (hereinafter referred to as KOWEPO) to conduct an independent assurance of the Sustainability Report for 2024 (hereinafter referred to as the Report). The scope of assurance is based on the SGS Sustainability Report Assurance methodology and AA1000 Assurance Standard v3 Type 2 Moderate level to assess whether the text and data in accompanying tables contained in the report presented and complies with the GRI Standards and AA1000 Accountability Principles (2018) during assurance 2025/01/07~2025/02/28. The boundary of this report includes KOWEPO operational sites' specific performance data included the sampled text, and data in accompanying tables, contained in the report presented.

SGS reserves the right to update the assurance statement from time to time depending on the level of report content discrepancy of the published version from the agreed standards requirements.

INTENDED USERS OF THIS ASSURANCE STATEMENT

This Assurance Statement is provided with the intention of informing all KOWEPO's Stakeholders.

RESPONSIBILITIES

The sustainability information in the Sustainability Report for 2024 and its presentation are the responsibility of the directors or governing body and the management of KOWEPO. SGS has not been involved in the preparation of any of the material included in the Report.

Our responsibility is to express an opinion on the text, data, graphs and statements within the scope of assurance based upon sufficient and appropriate objective evidence.

ASSURANCE STANDARDS, TYPE AND LEVEL OF ASSURANCE

The SGS ESG & Sustainability Report Assurance protocols used to conduct assurance are based upon internationally recognized assurance guidance and standards including the principles of reporting process contained within the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) GRI 1: Foundation 2021 for report quality, GRI 2 General Disclosure 2021 for organisation's reporting practices and other organizational detail, GRI 3 2021 for organisation's process of determining material topics, its list of material topics and how to manages each topic, and the guidance on levels of assurance contained within the AA1000 series of standards.

The assurance of this report has been conducted according to the following Assurance Standards

Assurance Standards Options and Level of Assurance	
A	SGS ESG & SRA Assurance Protocols (based on GRI Principles and guidance in AA1000)
B	AA1000AS V3 Type 2 Moderate Level (AA1000AP Evaluation plus evaluation of Specified Performance Information)

SCOPE OF ASSURANCE AND REPORTING CRITERIA

The scope of the assurance included evaluation of quality, accuracy and reliability of specified performance information as detailed below and evaluation of adherence to the following reporting criteria:

Reporting Criteria Options	
1	AA1000 Accountability Principles (2018)
2	GRI Standards 2021 (With Reference)

- AA1000 Assurance Standard v3 Type 2 evaluation of the report content and supporting management systems against the AA1000 Accountability Principles (2018).
- The evaluation of the reliability and quality of specified sustainability performance information in the Report is limited to determined material topics or those clearly marked in the report as conducted in accordance with type 2 of AA1000AS v3 sustainability assurance engagement at a moderate level of scrutiny for KOWEPO.
- The evaluation of the report against the requirements of GRI Standards is listed in the GRI content index as material in the report and is conducted with reference to the Standards.

ASSURANCE METHODOLOGY

The assurance comprised a combination of desktop research, interviews with relevant employees at headquarter located in 285, Jungang-ro, Taeon-eup, Taeon-gun, Chungcheongnam-do, Republic of Korea; documentation and record review and validation with external bodies and/or stakeholders where relevant.

LIMITATIONS AND MITIGATION

Financial data drawn directly from independently audited financial accounts has not been checked back to source as part of this assurance process.

Third-Party Assurance Statement

STATEMENT OF INDEPENDENCE AND COMPETENCE

The SGS Group of companies is the world leader in inspection, testing and verification, operating in more than 140 countries and providing services including management systems and service certification; quality, environmental, social and ethical auditing and training; environmental, social and sustainability report assurance. SGS affirm our independence from KOWEPO, being free from bias and conflicts of interest with the organisation, its subsidiaries and stakeholders.

The assurance team was assembled based on their knowledge, experience and qualifications for this assignment, and comprised auditors registered with ISO 9001, ISO 14001, ISO 45001, SA8000, RBA, AA1000, CFP and LCA Verification Auditors and experience on the SRA Assurance service provisions. and experience on the SRA Assurance service provisions.

ASSURANCE OPINION

On the basis of the methodology described and the assurance work performed, we are satisfied that the disclosure with inclusivity, materiality, responsiveness, and impact information in the scope of assurance is reliable, has been fairly stated and has been prepared, in all material respects, with reference to GRI Standards and AA1000 Accountability Principles (2018). SGS believes that KOWEPO has chosen an appropriate level of assurance for its report.

AA1000 ACCOUNTABILITY PRINCIPLES (2018) CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

INCLUSIVITY

KOWEPO has demonstrated a good commitment to stakeholder inclusivity and stakeholder engagement. A variety of engagement efforts such as survey and communication to employees, customers, investors, shareholders, suppliers, media, communities, and other stakeholders are implemented to underpin the organization's understanding of stakeholder concerns. For future reporting, KOWEPO may proactively consider having more direct two-ways involvement of stakeholders during future engagement.

MATERIALITY

KOWEPO has established effective processes for determining issues that are material to the business. Formal review has identified stakeholders and those issues that are material to each group and the report addresses these at an appropriate level to reflect their importance and priority to these stakeholders.

RESPONSIVENESS

KOWEPO has operated various communication channels for stakeholder engagement and stakeholder feedback, identified key issue and requirement, and established policy and strategy.

IMPACT

KOWEPO has demonstrated a process on identify and fairly represented impacts that encompass a range of environmental, social and governance topics from wide range of sources, such as activities, policies, programs, decisions and products and services, as well as any related performance. Measurement and evaluation of its impacts related to material topic were in place at target setting with combination of qualitative and quantitative measurements.

GLOBAL REPORTING INITIATIVE REPORTING STANDARDS CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

The report, KOWEPO's Sustainability Report of 2024, complies with the Requirements for reporting with reference to the GRI Standards set out in section 3 of GRI 1 Foundation 2021. The significant impacts were assessed and disclosed with reference to the guidance defined in GRI 3: Material Topic 2021. and the relevant 200/300/400 series Topic Standard related to Material Topic have been disclosed. The report has properly disclosed information related to KOWEPO's contributions to sustainability development. For future reporting, KOWEPO is encouraged to continue strengthening its commitment to relevant sustainability initiatives and sustainability reporting.

Signed:

For and on behalf of SGS Korea Co., Ltd.



Bruce Moon

Country Business Manager

Seoul, South Korea

March 7th, 2025



WWW.SGS.COM

