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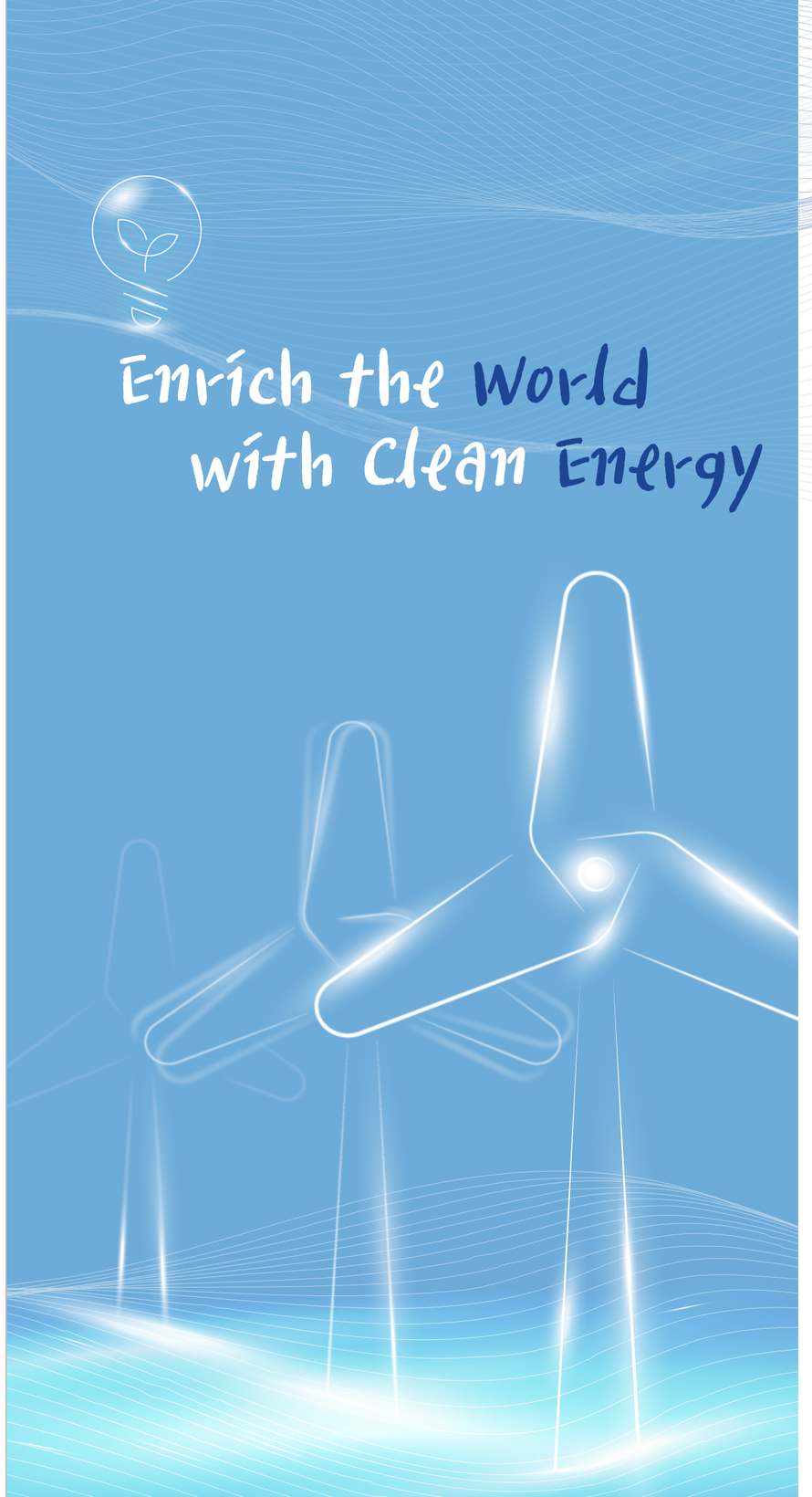
EWP Sustainability Report 2021



EWP
Sustainability Report 2021

EWP KOREA EAST-WEST POWER CO.,LTD.

ABOUT THIS REPORT

Korea East-West Power (EWP) has published its 15th sustainability report in 2021 to communicate its sustainable management activities and outcomes with stakeholders and to establish a transparent management system. This report is organized into environmental, social, and governance in accordance with the environmental, social and governance (ESG) management strategy of EWP to report its ESG management activities.

Reporting Standards

This report was drafted according to the core option correspondence method of the Global Reporting Initiative (GRI) Standards for sustainable management. Furthermore, it includes the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations, the Sustainability Accounting Standards Board (SASB) standards, ISO 26000, and the UN's Sustainability Development Goals (SDGs).

Reporting Boundaries

Domestic business sites of EWP

Reporting Cycle

Annual (previous report: Oct. 2020)

Reporting Period

Jan. 1 - Dec. 31, 2020
(partially includes major achievements in the first half of 2021)

Report Assurance

Independent third-party assurance

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CEO's Message

EWP will grow into a sustainable, eco-friendly energy company by shifting to low-carbon energy and developing new technologies.

This is a time of high uncertainties as social issues, such as public health and economic stagnation, begin to emerge due to the persistence of the COVID-19 pandemic, coupled with the climate change response policies of different countries, which include the declarations of carbon neutrality and introduction of carbon border taxes. As a public enterprise, we intend to reinforce our sustainable management to become an eco-friendly company that preemptively responds to climate change risks while fulfilling its social responsibilities.

Leading the Energy Transition

The Korean government announced the 2050 carbon neutrality scenario at the end of October. According to the scenario, it is expected to halt coal-fired power plants or maintain LNG generation with state-of-the-art facilities and to expand power generation from renewable energy and hydrogen. Accordingly, we will pursue prompt energy transition by increasing renewable energy, reducing the operation of coal-fired power plants, strengthening new energy businesses, and expanding the hydrogen fuel cell generation business. Furthermore, we will continue to procure eco-friendly technologies by focusing investments on the carbon capture, utilization, and storage (CCUS) business and technological development, procurement of new renewable energy technologies, production of hydrogen, and development of mixed fuel technologies.

Creating Social Values

We have been pursuing our New Deal strategy. We plan to invest approximately KRW 7 trillion by 2025 to foster the energy industry while creating about 38,000 jobs. Moreover, we are striving to overcome the COVID-19 pandemic together with stakeholders, including small and medium-sized enterprises (SMEs), partner companies, and local communities, while also providing customized on-site support for SME environment consulting and high-efficiency energy facilities. Through this, we aim at contributing to the economic recovery of Korea while growing with local communities.

Strengthening Business Transparency

We newly organized an ESG committee in June 2021 and established an ESG management system strategy as the importance of both financial value and non-financial value grows. We aim at becoming a sustainable company by preemptively responding to ESG risks. Moreover, we implemented an employee BOD observation system to strengthen the participation of stakeholders; we have reinforced our communication with stakeholders through the activities of a public participatory innovation group wherein citizens take part in managerial decision-making. By doing so, we improve the business transparency of the company while creating shared value.

Dear sincere stakeholders,
EWP will pursue prompt energy transition to become a "sustainable eco-friendly company" and expand communication with stakeholders. Please keep an eye on our ESG management, and we will do our best to repay the national interest and support. Thank you.

President & CEO of EWP

Kim, Young-Moon

About EWP

Company Overview

EWP became an independent company as a subsidiary of the Korea Power Corporation (KEPCO) per the Korean government's Act on Promoting the Restructuring of the Electric Power Industry in 2001. We are currently engaged in the development and generation businesses of electric power resources, and we have been designated as a market-type public enterprise. We will strive to offer eco-friendly energy in a stable, economical fashion to citizens.

Company profile (As of Dec. 31, 2020)

Date of establishment	April 2, 2001
Basis for foundation	Article 1 of the Act on Promoting the Restructuring of the Electric Power Industry (Article 530-2 of the Commercial Act, Dec. 23, 2000)
Main businesses	Electric power resource development and generation
Headquarters	395, Jongga-ro, Jung-gu, Ulsan, Republic of Korea
Governing agency	Ministry of Trade, Industry and Energy (MOTIE)
President	Kim, Young-Moon
No. of employees	2,466
Legal status	Market-type public enterprise, non-listed corporation

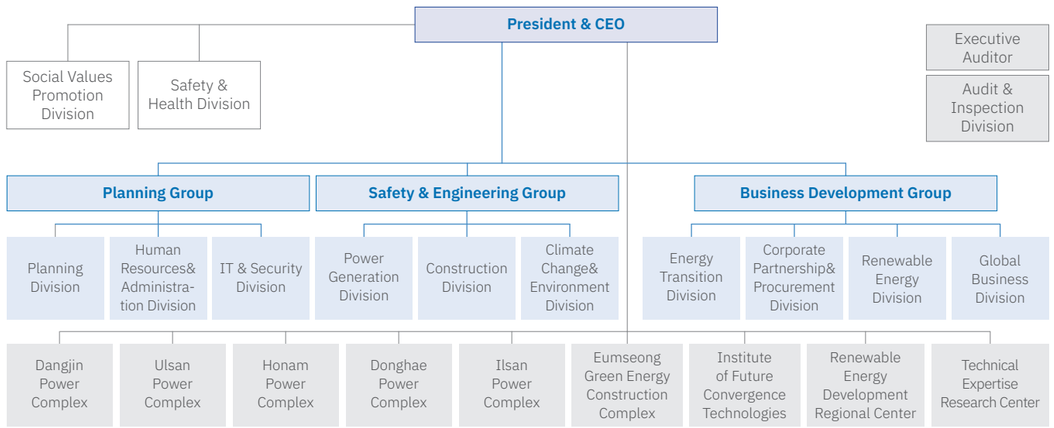
Composition of stakeholders	100% shares held by KEPCO
Power generation	45,566GWh
Electric power sales	43,079GWh
Power sales profits	KRW 3,985.5 billion
Total capital	KRW 4,714.1 billion
Total assets	KRW 9,772.5 billion
Operating profit	KRW -85.1 billion
Net profit	KRW -44.2 billion

Domestic business sites 9 (Dangjin Power Complex, Ulsan Power Complex, Honam Power Complex, Donghae Power Complex, Ilsan Power Complex, Eumseong Green Energy Construction Complex, Institute of Future Convergence Technologies, Renewable Energy Development Regional Center, Technical Expertise Research Center)

Organization

EWP maintains a tri-division system consisting of the Planning Group, Safety & Engineering Group, and Business Development Group. The Planning Division of the Planning Group oversees ESG management, with the Climate & Environment Division of the Safety & Engineering Group thoroughly managing environmental impact occurring from the business process. Furthermore, the Social Values Promotion Division supervises and manages the social values of EWP such as job creation, social contribution, and ethical management.

Organizational Cart



History

1898.01 Founded Korea's first electric power company, Hansung Electricity

1915.09 Founded Gyeongseong Electricity Co., Ltd.

1943.08 Founded Joseon Electricity Co., Ltd.

1946.05 Founded Namseon Electricity Co., Ltd.

1961.07 Integrated 3 companies to establish Korea Electric Power Co., Ltd.

1982.01 Founded KEPCO

2001.04 Separated into Korea East-West Power Co., Ltd.

2014.06 Relocated headquarters to Ulsan innovation City

Trace of Sustainability Management

	Economy	Environment	Society
2020	"Grand Prize" in the Korean Innovation Frontier Awards for two consecutive years	"Grand Prize" for the Ministry of Environment's Green Company	"Grand Prize" in 2020 Job Committee Award
2019	2019 The Best Management Awards in Korea	9th Climate Change Grand Leaders' Award	45th Korea National Quality Award Presidential Award
2018	Energy Champion Certification (Highest certified workplace among domestic public enterprise)	Company Loved by Koreans Award, Prime Minister's Award	Minister of Health and Welfare Award
2017	Public Institution Government 3.0 Performance Sharing Festival, Presidential Award	Voluntary participation in the carbon disclosure project (CDP) for 5 consecutive years and special award for 4 straight years	Topped the national infrastructure disaster management evaluation (Grade A)
2016	Awarded 7 times as a quality-competitive outstanding company	First place in the climate change competitiveness index generation industry for 6 straight years and special award for the CDP for 3 consecutive years	Grade S for 4 straight years in Safe Korea Training
2015	Economic Leader Award in the Korean coexistence sector	Special award for 2 consecutive years in the CDP	Presidential citation as an outstanding institution in fostering SMEs
2014	2013 Transparent Management Grand Prize	Grand prize in the Korean new growth green technology sector	2013 Award of Excellence Institute in Fostering Local Technicians
2013	Best performer by the Electric Utility Cost Group (EUCG)	Climate change competitive excellence corporation certificate	Prime Minister's Award for birth-friendly policies
2012	Selected as Unit of the Year by the Guam Energy Office	Grand prize at the UN Global Compact eco-friendly sector	Minister of Gender Equality and Family Award
2011	Longest Run Award by EUCG	2nd Green Technology Grand Prize	Outstanding business certificate by the Ministry of Patriots and Veterans Affairs
2010	Third consecutive grand prize at the 8th Digital Innovation	Grand prize in the on-site sector for the 2009 Korea Green Awards	Grand prize at the 8th Korean Safety Awards

Business Overview

Domestic Projects

EWP operates five thermal power plants at Dangjin Power Complex, Ulsan Power Complex, Honam Power Complex, Donghae Power Complex, and Ilsan Power Complex. With renewable power plants operated nationwide, we are in the stage of constructing a natural gas power plant in Eumseong-gun. EWP's capacity of generation facilities is 11,251.8MW and account for approximately 8.8% of the country's total generation capacity. In accordance with the carbon neutrality scenario of the Korean government, we are rapidly increasing renewable energy and switching from coal fuel to LNG.

Total Facility Capacity 11,251.8MW
8.8% of Total Generation Capacity in Korea

Ilsan Power Complex

914.8MW	
Natural gas	900MW
Fuel cell	13.3MW
Solar	1.5MW

Donghae Power Complex

449.4MW	
Coal	400MW
Biomass	30MW
Fuel cell	15MW
Solar	4.4MW

Dangjin Power Complex

6,092.5MW	
Coal	6,040MW
Small hydro	8.2MW
Solar	44.3MW

Eumseong Green Energy Construction Complex

Ulsan Power Complex

3,287.3MW	
Natural gas	2,071.9MW
Bio-heavy oil	1,200MW
Fuel cell	8MW
Solar	7.4MW

Honam Power Complex

507.9MW	
Coal	500MW
Solar	4.9MW
Wind	3MW

* As of Jun. 30, 2021

1 Dangjin Power Complex

The Dangjin Power Complex serves as EWP's core power plant, playing a pivotal role in the power supply in the central region of Korea. It pursues pollutant minimization in the process of power generation, such as pollution control facility improvement projects, including the replacement of the flue-gas desulfurization (FGD), deNOx system, and adding indoor coal storage to reduce fugitive dust.

2 Ulsan Power Complex

Through a heavy oil power plant and a natural gas power plant, the Ulsan Power Complex has contributed to the development of Korea's heavy and chemical industry by stably supplying electricity to the Ulsan region since the 1970s. After 2022, the complex will be abolishing the oil power plant and will only operate the natural gas power plant—the clean fuel.

3 Honam Power Complex

Completed in the early 1970s, the Honam Power Complex has contributed to the stable supply of electricity to the Yeosu Industrial Complex and the neighboring regions. On January 1, 2022, the power complex will be terminated to construct a natural gas power plant, and electricity will be continuously supplied throughout the region.

4 Donghae Power Complex

The Donghae Power Complex is a fluidized bed power plant that uses anthracite produced in Gangwon-do as a power generation fuel. It contributes to maintaining the local coal mining industry, and recently, it has initiated the operation of a biomass power plant that uses abundant local waste wood as fuel, thus building an ecosystem for the related industry.

5 Ilsan Power Complex

The Ilsan Power Complex is a natural gas power plant built for the stable supply of electricity and heat in the metropolitan area. The complex boasts of high heat use efficiency through its power generation capabilities and the ability to supply heat using waste heat.

6 Eumseong Green Energy Construction Complex

The Eumseong Green Energy Construction Complex plans to build a natural gas power plant in two phases by 2026. The complex visualizes to become an eco-friendly power plant equipped with the world's best environmental performance through the latest prevention facilities, water vapor suppression facilities, and water recycling facilities.

New and Renewable Energy Business

EWP is focusing on developing new and renewable energy sources as a core project for preemptively responding to the energy paradigm shift and to create future growth engines. For this, we are adjusting the generation portfolio to achieve 30% renewable energy generation by 2035. We plan to invest a total of KRW 24.7 trillion by 2035 and procure 9,000MW renewable energy facility.

Solar Power

In progress 404.7MW
Under construction 283.6MW
Under development 1,202.3MW

Solar Power Plant in Landfill for Coal Ash

Starting with the construction of a solar power plant in 2006, EWP operates 404.7MW solar power plants including the Solar Power Plant in Landfill for Coal Ash. We are leading the solar power industry through the development of various businesses such as roof solar power using industrial complex plants and warehouses, surface water solar power using freshwater lakes, and solar power using highway infrastructure.

Fuel Cell

In progress 94.6MW
Under construction 19.2MW
Under development 1,001.5MW

Paju Fuel Cell

We operate fuel cell generation complexes at the Ulsan Power Complex and Ilsan Power Complex since 2009. The Paju Fuel Cell Complex, completed in 2020, is becoming a new cooperative model by installing the city gas supply chain in the surrounding area along with the construction of fuel cells.

Wind Power

In progress 203.8MW
Under construction 63MW
Under development 3,386.4MW

Yeonggwang Baeksu Wind Power

We operate 140MW wind farm in the West Coast, connecting the wind power in Honam, Baeksu, and Yeonggwang. Furthermore, preparations are being made for the construction of 600MW wind belt in the East Coast connecting Yangyang, Samcheok, Pohang, Ulsan, and Yangsan, and the nation's largest wind power generation complex through the development of high-capacity wind power plants.

Marine Energy

In progress 8.2MW
Under development 430MW

Dangjin Small Hydro Power

Dangjin Power Complex operates two small hydro generator facilities utilizing the cooling water used in the course of producing electricity. We are also developing the tidal power generation project.

Bio Energy

In progress 268.9MW
Under development 40MW

Donghae Biomass

Bioenergy is the energy used in the form of liquid, gas, or solid fuels or as electric or heat energy through the direct or biochemical and physical transformation processes of biomass (collective term for organic bodies). EWP operates the Donghae Biomass (30MW) and the Seokmun Biomass (38MW).

ESS-Linked Renewable Energy

In progress 168.6MWh

Gyeongju Wind Power ESS

EWP operates renewable energy storage systems (ESS) in linkage with Gyeongju Wind Power and Dangjin Eco-Solar Power. We aim at contributing to stable power supply by storing in ESS the electric power generated through wind and solar power for supply during power peaks.

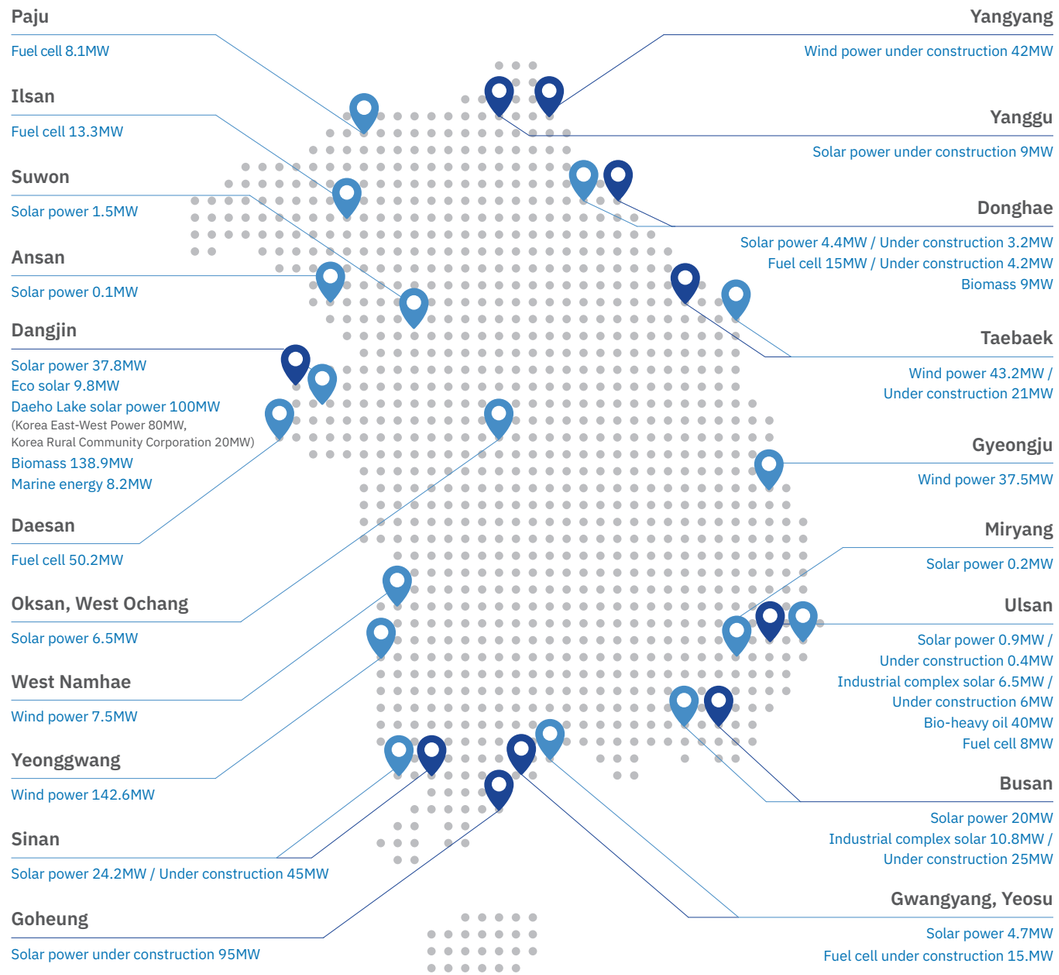
New and Renewable Energies

In Progress 56 Sites

Under Construction 13 Sites

In Progress
1,007.2MW+168.6MWh

Under Construction
365.8MW



* As of Jun. 30, 2021

Overseas Projects

As the first enterer in the US market among Korean power generation companies, we are continuously proving our competitiveness in overseas power generation markets. We have an overseas office in Vietnam as well as overseas corporations in Indonesia, the US, and Guam. In 2019, we made a successful bid for the Guam Ukudu Gas-Combined Power Plant project together with KEPCO, and we are currently in the process of constructing a high-efficiency power plant

In Progress

Project	Capacity	Period
Jamaica Public Service Co., Ltd. (JPS) Project, Jamaica	498MW	2011 – Continued
Gas-Combined Power Plant Project, Jamaica	190MW	2019 - 2039
US EWPRC Operation Project	94MW	2010 – Continued
Kalsel-1 Coal-Fired Power Plant Project, Indonesia	200MW	2019 – 2044
Distributed Photovoltaic Project, Chile	40MW	2020 – 2045

Under Construction

Project	Capacity	Period
Gas-Combined Power Plant Project, Guam	198MW	2021 – 25 years after completion of construction

Under Development

Project	Capacity	Period
Trumbull Gas-Combined Power Plant Project, US	953MW	30 years after completion of construction
Solar Photovoltaic Project, Australia	202MW	25 years after completion of construction
Solar Photovoltaic Project, Jamaica	134MW	20 years after completion of construction

In Progress
5 Projects in 4 Countries

Under Construction
1 Project in 1 Country

Under Development
11 Projects in 9 Countries

* As of Jun. 30, 2021

1 US EWPRC Operation Project

Chowchilla Power Plant, California, US

As the first enterer in the US market among Korean power generation companies in 2010, EWP operates two gas engine power plants using natural gas as fuel.

2 JPS Operation Project

JPS headquarters

As a major shareholder of the JPS, EWP operates an overseas energy utility that integrates power generation and transmission.

2 Gas-Combined Power Plant Project, Jamaica

Gas-Combined Power Plant Project, Jamaica

EWP participated in the gas-combined power plant project using natural gas for the first time in Jamaica. Construction was completed in 2019, and the plant is currently under commercial operation and is scheduled to supply electric power in Jamaica by 2039.

3 Distributed Photovoltaic Project, Chile

Distributed Photovoltaic Project, Chile

The Chilean Distributed Photovoltaic Power Plant project is EWP's first overseas renewable energy generation project, and we are working to procure overseas greenhouse gas (GHG) trading rights in connection with our CDM projects.

New Energy Business

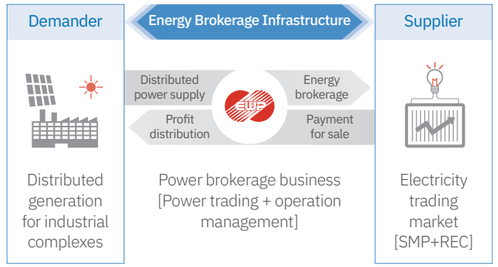
EWP is taking the lead in resolving major pending issues in the energy sector, such as carbon neutrality response, future energy development, energy security, and demand management, and in establishing an ecosystem for new energy projects.

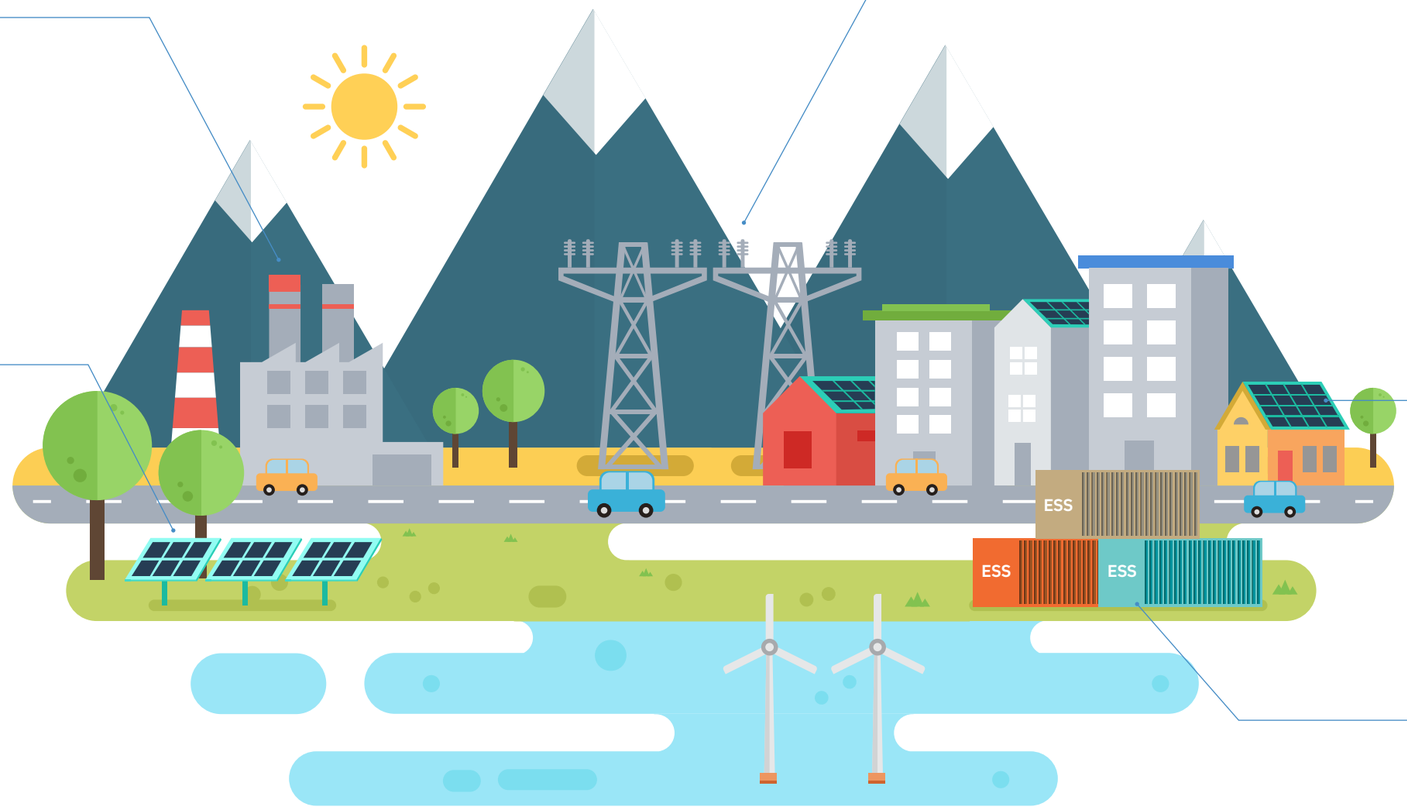
Supply Project for Roof-Top Photovoltaic Power Facilities in Industrial Complex

EWP carries out solar power generation and small-scale power-brokering projects using the rooftops of industrial complex plants and idle lands. This is a business model that shares profits with companies.

Small-Scale Power Brokerage

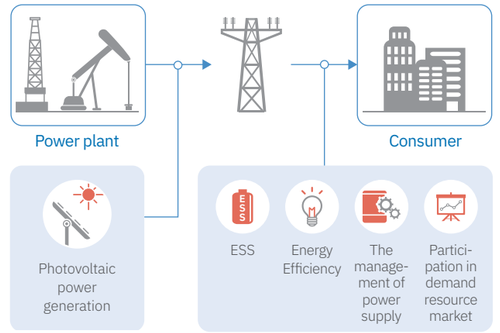
As EWP's small-scale power-brokering business brand, E-max is a project to manage small-scale under 1MW renewable energy resources such as private solar panels and small hydropower nationwide, while brokering small-scale power market trading and providing real-time facility monitoring.





Energy Efficiency Business

This is a business that analyzes the electric usage patterns to provide optimal efficiency solutions for public institutions and campuses. While saving energy costs, it is also expected to contribute to reducing system demand.



Virtual Power Plant (VPP) Project with the Locals

VPP is a project that receives rooftop sites from locals and cooperatives to distribute solar panels while using information and communication technologies for integrated management as a single power plant. VPP project aims at promoting community energy welfare as well as the spread of renewable energy.

ESS Management Service Provider (MSP)

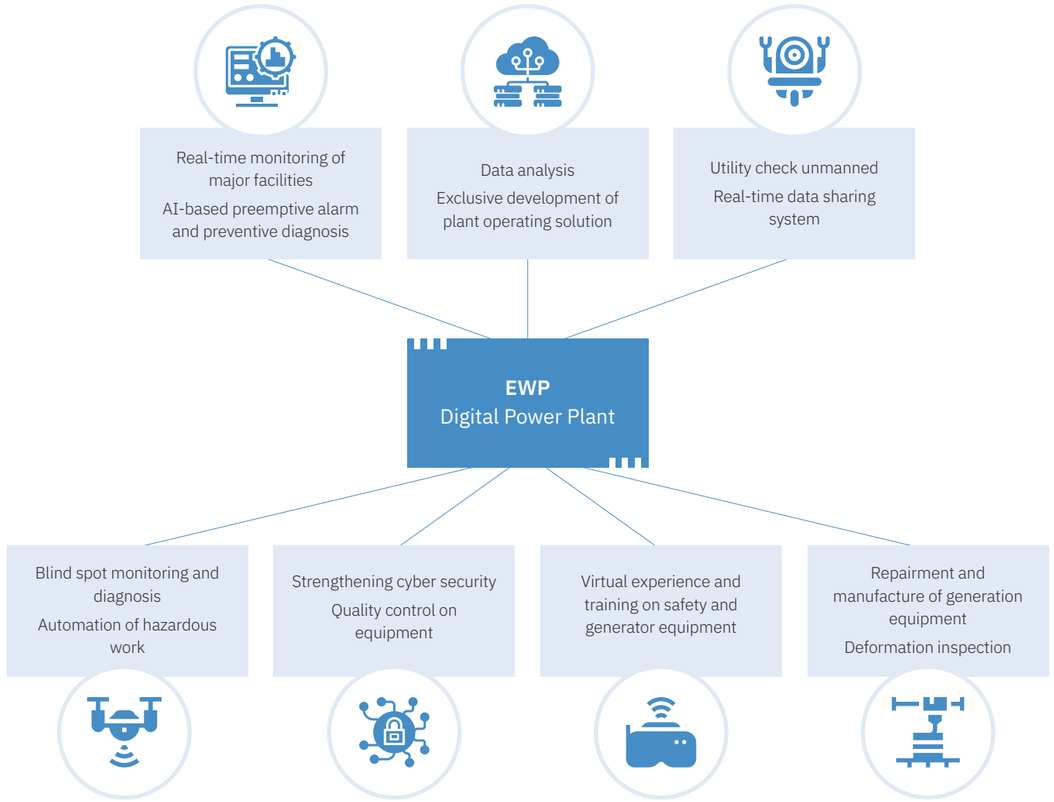
The ESS MSP project is an energy cost reduction business model developed for the first time in Korea by EWP. This is a solution project that analyzes the electric power usage pattern of companies with high energy consumption to provide optimal ESS construction and operation service as well as to share with companies the profits from saving on electric fees resulting from improved energy efficiency.

Power Industry 4.0

EWP has grown as Korea's best power generation company through ceaseless innovations, and we are raising our corporate value by consolidating our generator operation expertise while creating sustainable value. We converge and integrate operations information and on-site knowledge collected during power plant operations through the 'e-Brain Center'. This enables the configuration of an intelligent power plant operating system.

Why is Power Industry 4.0 Needed?

The Internet of Things (IoT) and ICT technologies, the core Industry 4.0 technologies, enable immediate decision-making through data monitoring when connecting machines and facilities, and solutions such as diagnosis and prediction using accumulated big data.

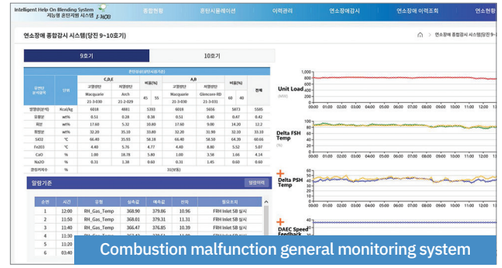


Major Achievements of Digital Transformation

Big Data / AI

Real-time monitoring of major facilities and AI-based prediction alert

Equipment integrity monitoring system


Combustion malfunction general monitoring system

Robot

Automation of hazardous works

Underwater cleaning robot

VR/AR

Virtual experience and training on safety and generator equipment

VR education on safety and health

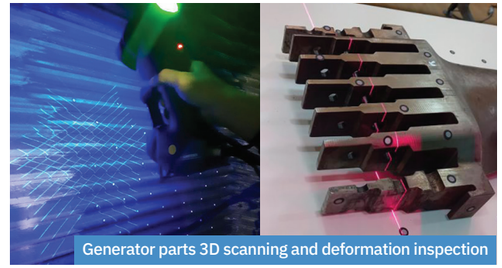
Drones

Diagnosis and filming of high-altitude/hazardous areas such as solar power, wind power, and coal yards

Smart construction management drones

3D Printing /Scanners

Repairment and manufacture of generation equipment and deformation inspection


Generator parts 3D scanning and deformation inspection

EWP Special Report

Leading the Hydrogen Economy — 18

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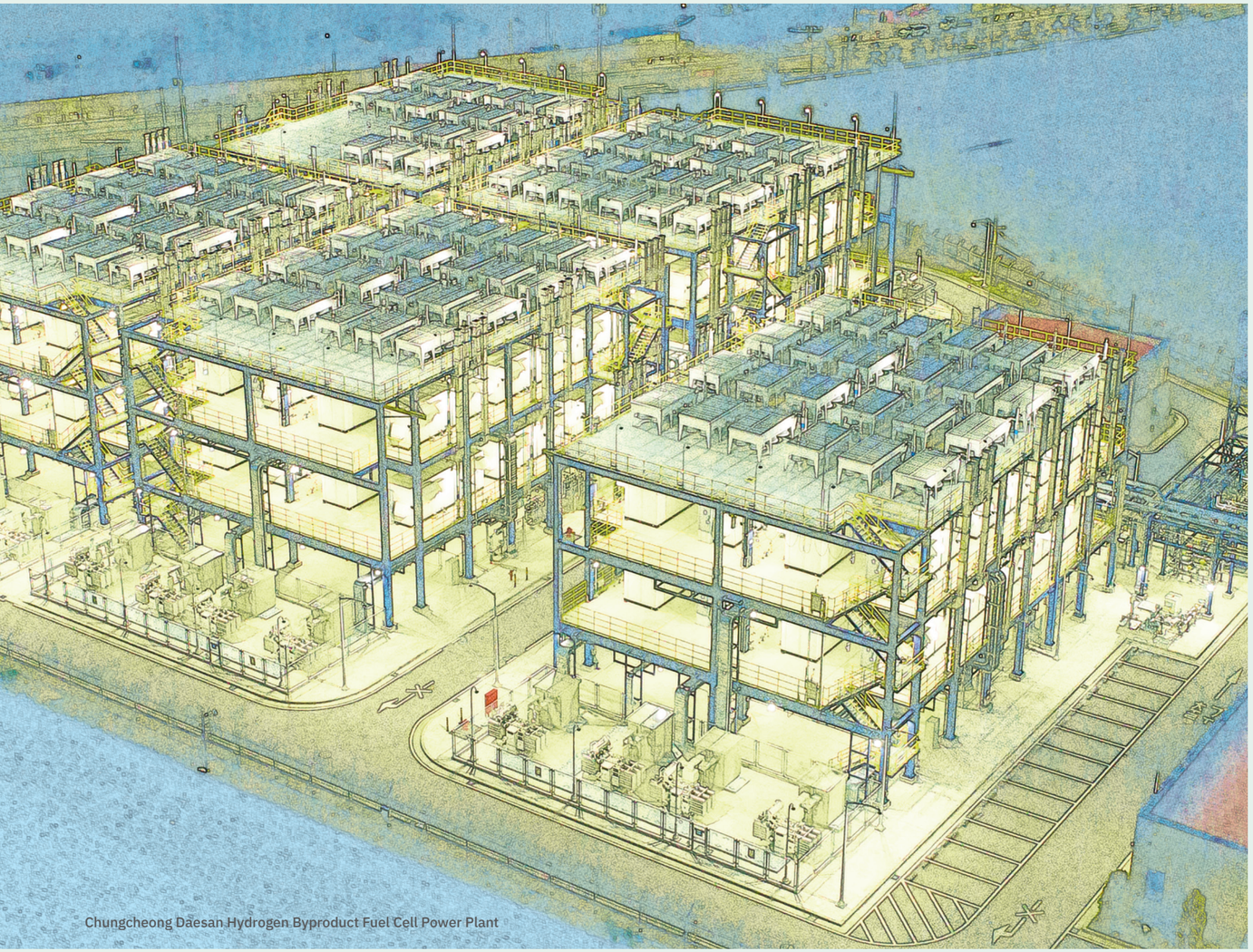
Leading the Hydrogen Economy

The hydrogen economy is an economic industry structure using hydrogen as the main energy source. As an economical system that breaks away from the energy system that relies on fossil fuels, the hydrogen economy creates new industries and markets in all fields needed for the stable production, storage, and transportation of hydrogen. EWP intends to produce gray hydrogen in connection with large-scale petrochemical complexes and procure green hydrogen platform technologies to lead the hydrogen economy in accordance with the Korean government's hydrogen economy promotion roadmap.



Chungcheong Daesan Hydrogen Byproduct Fuel Cell Power Plant

"Hydrogen (H_2)-Triangle" that Leads the Hydrogen Industry

EWP plans to invest KRW 6.4 trillion in the H_2-Triangle project by 2030. This is a project for developing life-cycle platform technologies encompassing hydrogen production, distribution, storage and consumption. We are planning to secure a hydrogen power generation facility with a capacity of 1,015 MW and create high-quality jobs through the project.

1 [Gangwon-do area] Green Hydrogen
Electrolysis (P2G[1]) Technology Development

EWP plans to establish and operate solar-hydrogen convergence complexes to procure and produce green hydrogen platform technologies.

1) Technology that produces and uses hydrogen through the electric decomposition of water based on the output of wind power or solar power that cannot be accommodated by electrical power systems

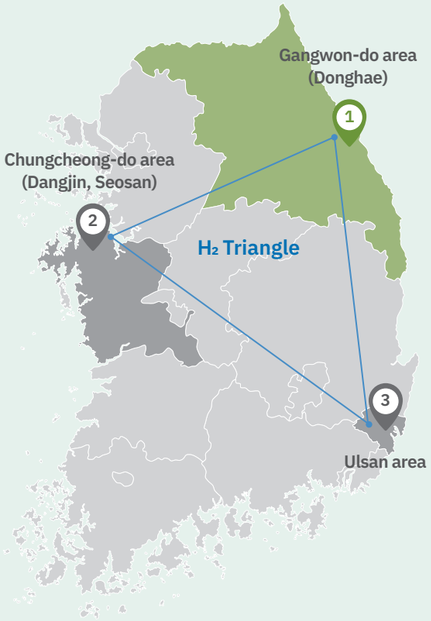
2 [Chungcheong-do area] Gray Hydrogen
Use of Hydrogen Byproducts

EWP operates the world's first and largest (50MW) hydrogen byproduct fuel cell power plant in the Daesan Industrial Complex. This power plant produces electricity by using hydrogen byproducts generated from the process of a nearby petrochemical plant as a direct energy source.

3 [Ulsan area] Gray Hydrogen
Establishment of a Natural Gas Reforming Hydrogen Business and Green Hydrogen Logistics Hub

EWP partnered with the Ulsan government that declared its vision of becoming the world's best hydrogen city by 2030. Together, we pursue various hydrogen businesses in the Ulsan region. We carry out fuel cell business development and R&D with hydrogen car companies in Ulsan at the Ulsan Power Complex. Furthermore, we signed MOUs for fostering the Ulsan Port green hydrogen logistics hub with the Ulsan Port Authority and petrochemical companies in Ulsan. We plan to expand our business fields with hydrogen life-cycle value chains by establishing a green hydrogen logistics hub in the future.

H_2-Triangle



Hydrogen Facility Capacity

94.6MW in 2020 → **1,015MW** in 2030

Types of Hydrogen According to the Hydrogen Production Method

Gray Hydrogen	Green Hydrogen
This is forming method that reacts to natural gas with high- temperature/ pressure vapors to extract hydrogen in water. It also includes hydrogen byproducts generated from the petrochemical and steel processes. Gray hydrogen emits carbon dioxides during the production process but has an advantage in terms of cost. Due to its economic feasibility, gray hydrogen plays an important bridging role in building a hydrogen ecosystem prior to the commercialization of green hydrogen.	Green hydrogen is produced by electrically decomposing water (hydrolysis) using renewable energy such as solar power and wind power. It is regarded as ideal hydrogen energy because there are no carbon dioxide emissions in the production process at all. However, it has the weakness of high production cost.

Eco-Friendly Technological Innovation

EWP proceeds its own R&D activities in cooperation with industry, university and research institutes to develop new eco-friendly technologies. Our goal is to protect the environment through the development of eco-friendly technologies and to localize core renewable energy generation facilities necessary for eco-friendly power generation, thereby creating sustainable values.

Renewable Energy R&D Costs

(Unit: KRW 100 million)

Eco-Friendly Technology Development Status

Nov. 2020 - Development of coal transport equipment coal distributor room fugitive dust collection system

Feb. 2020 - Localization of direction and wings adjustment gearbox for large wind power plants 4MW or higher

Feb. 2020 - Development of a farm-friendly solar power generation system that maintains agricultural productivity using LEDs

“Farming-Type Solar Power Generation” Technological Innovation for Both Farming and Electricity Production

Farming-type solar power generation can be used not only to produce eco-friendly energy but also to earn profits from farming. In the past, the installation of Farming-type solar power equipment created shadows that interrupted the growth of crops, at the same time, it required high installation costs. In order to solve this problem with Farming-type solar power generation, EWP cooperated with Yeungnam University to develop 600nm LED wavelength technologies that promote photosynthesis and rainwater storage and sprinkler technologies for areas with inadequate farm water supply. As a result, production improved by more than 17% compared to general open land, and we applied easy-to-install structures to reduce installation costs by 30%.

Production

17% increased

Installation Cost

30% reduced

Farming-type solar power generation in Paju, Gyeonggi-do

COVID-19 Response

EWP preemptively established an infectious disease response system so that power supply is uninterrupted even during the COVID-19 pandemic. We also established a business continuity planning (BCP) scheme.

Institution in COVID-19 response

Excellent

(MOTIE, Dec. 2020)

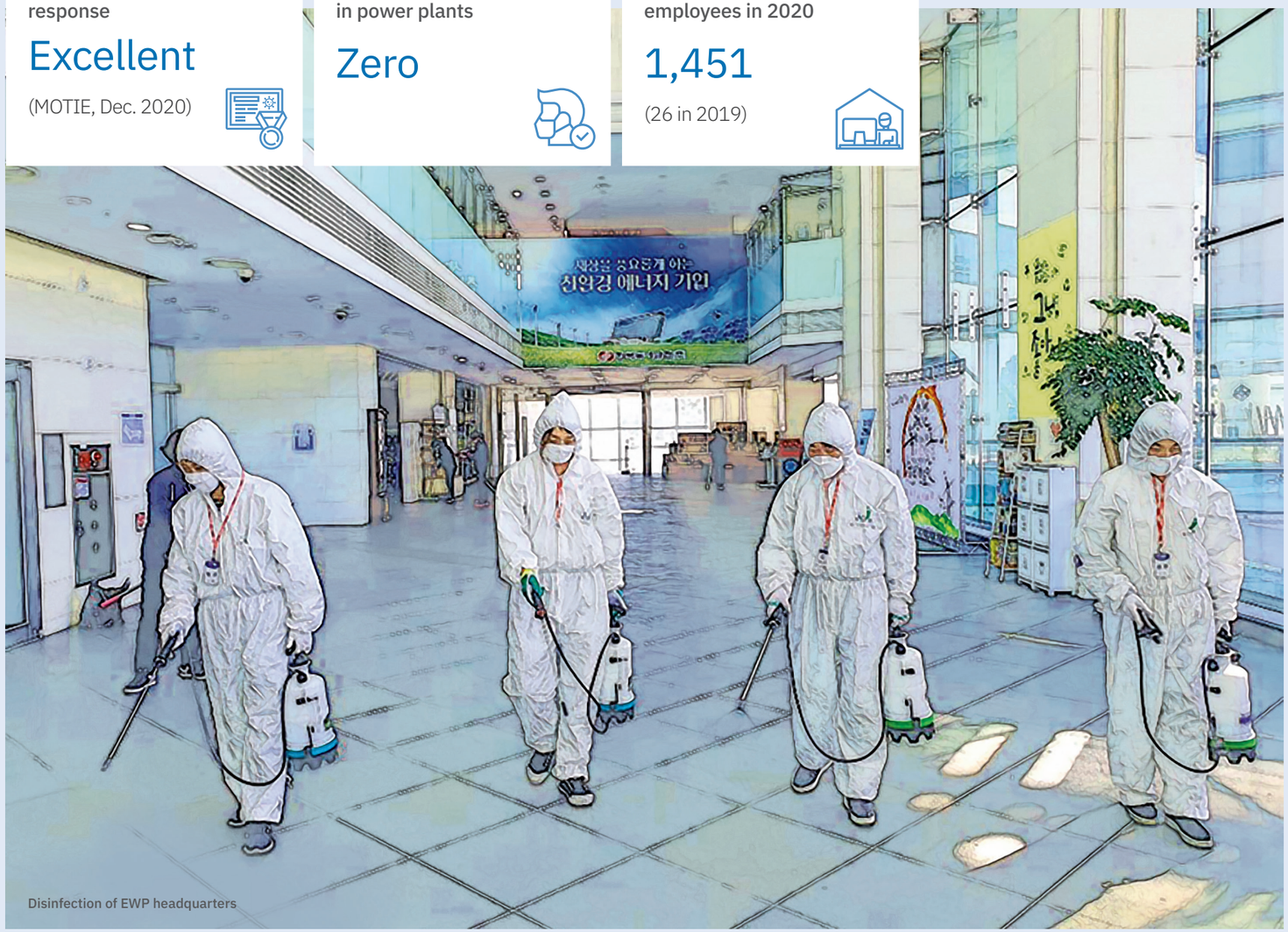
COVID-19 confirmed cases in power plants

Zero

No. of work-from-home employees in 2020

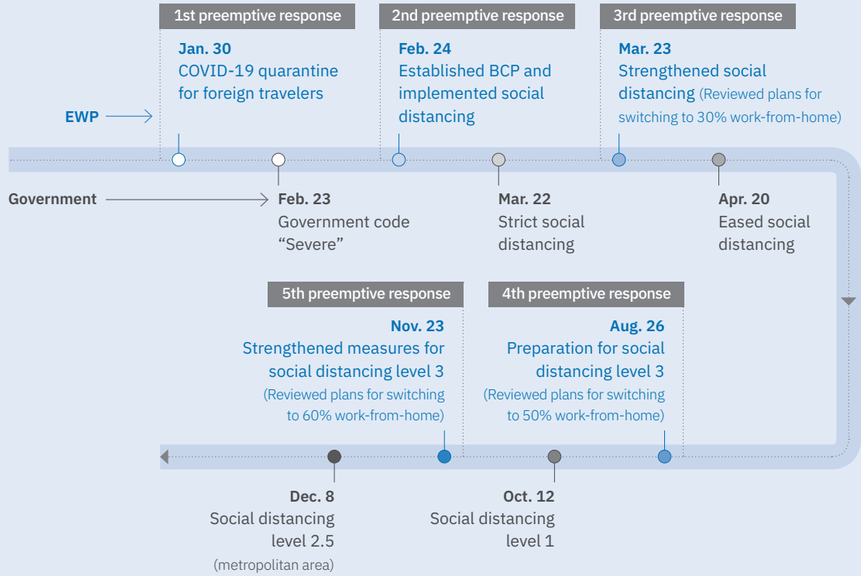
1,451

(26 in 2019)



Disinfection of EWP headquarters

Preemptive COVID-19 Response Timeline



Establishment of a COVID-19 Emergency Response System

EWP established an infectious disease emergency response system in advance to deal with COVID-19. Accordingly, we drafted personnel allocation standards to assign personnel to substitute workers in the central control room in the event that there are confirmed cases or quarantined workers, operating work-from-home and quarantine offices to ensure business continuity. In order to activate work-from-home, we reinforced our digital infrastructure such as virtual private network, and we are adjusting the work-from-home personnel depending on the social distancing level. Furthermore, the generator control room thoroughly restricts unauthorized personnel, and emergency simulation training sessions are held to ensure the continuity of generator facilities in order to ensure a stable power supply to the citizens.

Outsider Access	• Implementation of guidelines on 10-step access procedures such as temperature checks, disinfection, and issuance of pass
Control Room	• Control of outsiders and stockpiling of emergency supplies and personal protective equipment • Conduct of emergency simulation training to secure continuous operation of power generation facilities
Multi-Purpose Facilities	• Installation of disinfectant tunnels, thermal imaging cameras, and air purifiers • Staggered lunch breaks and installation of partitions, etc.
Employees	• Operation of Joint COVID-19 Response Committee with partner companies • Support for quarantine supplies and operation of negative pressure isolation rooms • Quarantine and temperature checks at partner companies' workplaces

EWP ESG Strategy

ESG Management Strategy 26

Materiality Assessment 28

Management Approach 30

ESG Management Strategy

EWP established an ESG management strategy system in 2021 to fulfill its social responsibilities as a public enterprise and to strengthen the executive power of ESG management. Under the vision of a global energy company that emphasizes the environment and society while advocating transparent management, we pursue 12 core projects according to the three directions suggested by ESG. Furthermore, we aim at contributing to the sustainable development of the international community while managing the mid- to long-term goals and achievements in connection with the ESG management focal projects and the UN SDGs.

Mission

Stable supply of energy needed by the nation

Vision

Leading company in eco-friendly energy transition

Management Policy

- **Pursue Value**
- **Aim for Innovation**
- **Communication and Participation**

Core Values

- Safety First
- Green Transition
- Win-Win Cooperation
- Integrity and Fairness

2035 Strategy Direction and Goals

- **Lead Energy Transition**
  - Renewable energy generation 30%
  - Renewable R&D investment 80%
  - Future new business revenue 2.4 trillion KRW
- **Sustainable Green Growth**
  - Total facility capacity 23GW
  - GHG reduction 50%
  - Fine dust reduction 85%
- **Realize Social Value**
  - Industrial accident rate 0%
  - Shared growth evaluation, Top rating
- **Establish Management Innovation System**
  - Integrity Grade 1
  - Organizational culture satisfaction 90 points

ESG Vision

Global Energy Company Emphasizing Environment·Society and Advocating Transparent Management

ESG Management Strategy System

Environmental

Preemptive Response to Advocate Eco-Friendliness

- 01 Establish climate change response system for low-carbon transition
- 02 Create pleasant air quality through intensive reduction of fine dust
- 03 Expand eco-friendly renewable energy and R&D
- 04 Expand the spectrum of work through energy efficiency innovation

SDGs: Clean water and sanitation; Affordable and clean energy; Sustainable cities and communities; Climate change and responses; Marine resources protection; Land ecosystem preservation

Social

Realize Trusted Social Values

- 05 Establish a base for coexistence with local communities and SMEs
- 06 Enhance disaster safety management and information security system
- 07 Fulfill social responsibilities through human resource management
- 08 Fair personnel management considering the socially disadvantaged

SDGs: No poverty (Eradicate social discrimination); Ensure healthy lives and promote well-being; Achieve gender equality and increase women's rights; Decent work and economic growth; Reduced inequalities; Sustainable cities and communities

Governance

Establish a Transparent Management System Focusing on Communication

- 09 Strengthen the role of the board of directors (BOD) to secure governance transparency
- 10 Advance ethical compliance management & anti-corruption systems
- 11 Promote communication by building a resident participation platform
- 12 Enhance business transparency by expanding ESG disclosures

SDGs: Reduced inequalities (Marginalized class); Peace, justice, and strong institutions; Invigorate global partnership

Materiality Assessment

EWP conducts materiality assessment according to the GRI. Materiality assessment is conducted based on surveys among internal and external stakeholders while also comprehensively considering press release analysis, Korean and overseas business benchmarking, global sustainability standards, and evaluation indices. We transparently report response activities and performance for the “material issues” selected by internal and external stakeholders in our sustainability reports. Furthermore, we aim to inspect, improve, and strengthen our sustainable management (ESG management) outcomes and strategies by reporting sustainable activities in accordance with international standards.

Step.1 **Compose a General Issue Pool**	By comprehensively reviewing the GRI standards, press coverage, ESG evaluation indices, and Korean/ overseas report benchmarking in similar industries, we composed a total of 24 issue pools suitable for EWP.
Step.2 **Conduct Materiality Assessment**	We conducted surveys of internal and external stakeholders, and 260 valid responses were collected and analyzed. Based on this, we identified the materiality and stakeholder interest in sustainable management activities.
Step.3 **Deduce Material Topics**	Top 10 issues were selected as material topics by ranking, we reflecting social interest and business impact analysis results.

We conducted surveys on the sustainable management in 2021 targeting stakeholders to investigate the implementation level and awareness of management/governance, environment, employees, and society.

(Unit: points, out of 5)

[ESG Management] Do you think EWP creates sustainable value in the governance, environmental, employee, and social sectors in addition to business and economic growth?

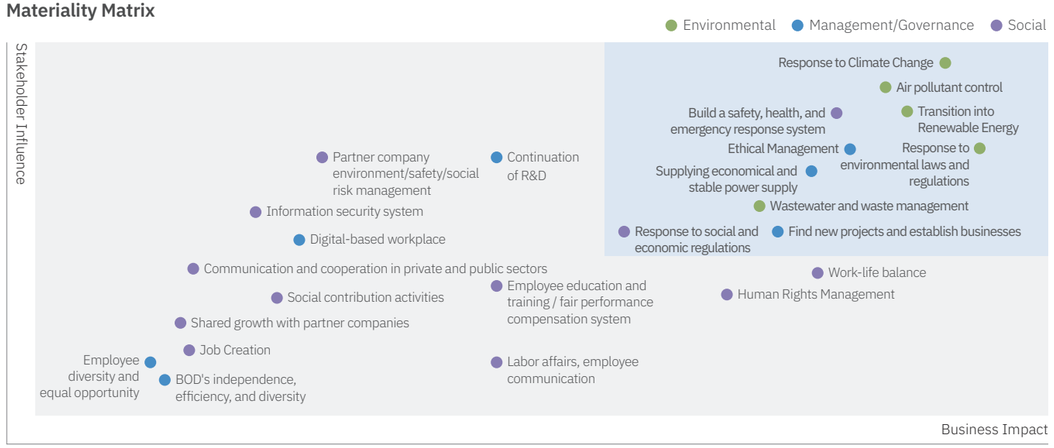
[Management/Governance] Do you think sustainable value is being created in the sector?

[Environmental] Do you think sustainable value is being created in the sector?

[Social] Do you think sustainable value is being created in the sector?

[Employees] Do you think sustainable value is being created in the sector?

Materiality Matrix



ESG Priority Rank

Rank[1)]	Category	Topic	Boundaries	Page
1	Environmental	Response to Climate Change	Government, local community, employees	35-38
2(▲7)	Environmental	Air pollutant control	Government, local community, employees	46
3(▲4)	Environmental	Response to environmental laws and regulations	Government, local community, employees	44-47, 84
4(new)	Environmental	Transition into Renewable Energy	Government, employees, local community, partner companies	39
5(▼1)	Social	Build a safety, health, and emergency response system	Employees, partner companies	60
6(▼1)	Management/Governance	Ethical Management	Employees, local community, partner companies	78
7(▲7)	Management/Governance	Supplying economical and stable power supply	Government, employees, local community, partner companies	39,62
8(▲2)	Environmental	Wastewater and waste management	Government, local community	47
9(▼7)	Management/Governance	Find new projects and establish businesses	Government, local community	12-13, 18
10(▲7)	Social	Response to social and economic regulations	Government, employees	59
11	Social	Work-life balance	Employees	71
12(▼3)	Management/Governance	Continuation of R&D	Partner companies, local community	42-43
13(▲7)	Social	Human Rights Management	Partner companies, local community	64-65
14(▼1)	Social	Partner company environment/safety/social risk management	Partner companies	59
15	Social	Employee education and training/fair performance compensation system	Employees	66-67
16(new)	Management/Governance	Digital-based workplace	Employees, partner companies, local community	14-15
17(▲2)	Social	Labor affairs, employee communication	Employees	70
18(▼3)	Social	Information security system	Employees, partner companies, local community	63
19(new)	Social	Social contribution activities	Local community	51-54
20(▼13)	Social	Shared growth with partner companies	Partner companies	55-58
21(▼3)	Social	Communication and cooperation in private and public sectors	Government, partner companies, local community	81
22(new)	Social	Job Creation	Government, employees, local community	68-69
23(new)	Management/Governance	BOD's independence, efficiency, and diversity	Employees, partner companies	75-77
24(▲1)	Management/Governance	Employee diversity and equal opportunity	Employees, local community	67

1) Ranks changed compared to previous year’s materiality matrix

Management Approach

Environmental

Material Topic : ① Response to Climate Change, ⑨ Find New Projects and Establish Businesses

▶ Page: 35-43, 48-49

Sustainability Context

The climate change issue has been coming up as global security and economic issue that threatens the sustainability of humanity beyond a mere environmental problem. With the internationally binding Paris Agreement entering into force (Nov. 2016), the international community is required to make efforts to bring down the rate of the rising average temperature of the globe to below 1.5℃. Accordingly, the Korean government also declared "2050 Carbon Neutrality" to participate in the efforts of the global community. Furthermore, as environmental issues such as climate change are gaining attention, stakeholders are also demanding active eco-friendly management beyond compliance with laws and regulations.

Management Approach

In order to fulfill our social responsibilities as a public energy enterprise and to participate in climate change response activities, we are shifting to renewable energy, converting the fuel from coal to LNG, reducing the operation of coal-fired power plants, and developing technologies to mitigate GHG. As part of efforts to secure external GHG reductions, we utilize an emissions trading scheme offset program to support the GHG reduction by SMEs and to pursue the Clean Development Mechanism (CDM). Moreover, we seek new projects in connection with smart grid and ESS for the purpose of energy efficiency.

Emissions trading scheme execution rate

100%

Potential amount of securing GHG reduction in outside projects

1.557 million tons of CO_2-eq

▶ Page: 44-47

Material Topic : ② Air Pollutant Control, ③ Response to Environmental Laws and Regulations, ⑧ Wastewater and Waste Management

Sustainability Context

Environmental laws and regulations are being reinforced, and penalties for violations are also increasing. With these given, the ability to respond to environmental laws and regulations is directly connected to corporate competitiveness.

Management Approach

EWP controls air pollutant emissions concentration levels to a stricter degree than legal standards, and we pursue reduced operation of coal-fired power plants, environmental equipment performance improvement projects, and the use of eco-friendly fuels. Wastes must be checked as to whether they can be recycled when being treated; if recycling is impossible, wastes are treated internally or through a vendor according to the Wastes Control Act and relevant regulations. Furthermore, we prevent violations of environmental laws and regulations through the environmental risk management system.

Fine dust reduction rate

40% ↓ compared to 2018

Recycling rate of coal ash

100%

Material Topic : ④ Transition into Renewable Energy, ⑦ Economical Power Supply

▶ Page: 39-40

Sustainability Context

The mandatory renewable energy supply program that requires power plants more than 500,000kW (500MW) to generate a certain amount of power with renewable energy sources is expanding, and the mandatory hydrogen power generation system will also be implemented in 2022. Furthermore, according to the government's 2050 carbon neutrality scenario, thermal power generation is expected to decrease significantly while renewable energy demand will grow considerably.

Management Approach

EWP is adjusting the generation portfolio to achieve 30% renewable energy generation by 2035. While renewable energy has the advantage of being eco-friendly, it is relatively more expensive to produce, thus requiring larger investments. Accordingly, we are adjusting our power generation portfolio in response to the energy paradigm shift by comprehensively considering the environment, economics, and technologies on a purpose of a stable and economic power supply to the citizens.

Completion of renewable energy generation facilities

449.8 MW

Renewable energy generation

2,459 GWh

Social

Material Topic : ⑤ Build a Safety, Health, and Emergency Response System, ⑦ Stable Power Supply

▶ Page: 60-62

Sustainability Context

With industrial accidents leading to deaths continuously recurring, the light punishment of the Occupational Safety and Health Act has become a social issue. As a result, the Occupational Safety and Health Act will be strengthened, and the Severe Accident Punishment Act will be enacted in January 2022. With the implementation of the Severe Accident Punishment Act, the chief executive of a company will be responsible for ensuring safety and health, and criminal punishment will also be reinforced. Furthermore, power complexes functioning as social infrastructure can incur social losses if they are unable to respond to emergency situations.

Management Approach

EWP strengthens its safety-first management system that places utmost importance on the life and safety of citizens, workers, and employees. For this, we have constructed our business sites based on ISO 45001 (safety and health management system), and we are dutifully carrying out the workplace safety reinforcement measures and public institution safety management guidelines. In particular, we are integrating Industry 4.0 technologies, such as AI and VR, to further advance our safety and health levels to stop high-risk work fundamentally while minimizing the possibility of accidents. Furthermore, we conduct integrated monitoring on information related to fires, earthquakes, and hazardous chemical leaks through our smart integrated disaster management system. We have also maintained the business continuity management systems (ISO 22301) to maintain our business continuity even if there's an emergency.

Death rate in industrial accidents per ten thousand employees

0‰

Forced outage rate

0.00061%

▶ Page: 59, 92

Material Topic : ⑩ Response to Social and Economic Regulations

Sustainability Context

When a company grows, its impact on society also grows, and it is faced with various social and economic laws and regulations. If it is unable to respond to social and economic laws, the corresponding national petitions and lawsuits can damage the corporate image, even leading to punishment and penalties.

Management Approach

EWP responds to social and economic laws and regulations to stop faulty work and inappropriate behavior through an internal control system. We evaluate work with corruption risks using a checklist for each work area, and we have been implementing the fair trade autonomous compliance program (CP) since 2020.

No. of anti-competitive behavior and violations of the Monopoly Regulation and Fair Trade Act/Fines

0 cases / KRW **0**

Governance

Material Topic : ⑥ Ethical Management

▶ Page: 78-80

Sustainability Context

With the goal of ranking among the world's top 20 in the Corruption Perceptions Index by 2022, Korea has been pursuing the enactment of the Public Service Conflict of Interest Prevention Act, and it has also strengthened the Improper Solicitation and Graft Act. Furthermore, as on-site inspections to prevent corruption such as public contracts and eradication of public institutions' irrationality are strongly monitored, the ethical management risks of public institutions have also increased.

Management Approach

EWP has been maintaining the Anti-bribery management systems (ISO 37001) certification, and we strive to improve our integrity by undergoing evaluations by the Anti-Corruption and Civil Rights Commission (ACRC). It is our goal to enhance the effectiveness of reporting channels such as Sinmungo and Red Whistle systems to eradicate corruption. We carry out ethics education and require ethics pledges to internalize ethical management. We also make various efforts such as declaring the powerful will of the management for ethical management. Furthermore, we support partner companies to acquire ISO 37001 to spread the integrity culture far and wide, and we are also participating in various participation-type ethical events.

Anti-corruption policy evaluation (ACRC)

Very Good (Grades 1 and 2) for 9 consecutive years

Support for vendors to acquire anti-bribery management systems certification

10 companies

EWP

ESG Performance

E Environmental ——— 34

S Social ——— 50

G Governance ——— 74

Environmental | Preemptive Response in Leading Eco-Friendliness |

STRATEGY

Goals	Key KPIs	2021	2025	2020 Performance
Establish a Climate Change Response System for Low-Carbon Transition	Emissions trading scheme execution rate	100%	100%	Emissions Trading Scheme Execution Rate 100%
	Korean/overseas GHG external reduction per year	0.1 million tons	0.23 million tons	Potential Amount of Securing GHG Reduction in Outside Projects 1.557 million tons
Create a Pleasant Air Quality through Intensive Reduction of Fine Dust	Fine dust reduction rate	42%	55%	Fine Dust Reduction Rate 40%
	Low-carbon internalization project completion rate	14%	Completion	Amount of Fine Dust Reduction 707 tons
Expand Eco-Friendly Renewable Energy and R&D	Fuel cell project plans	67MW	80MW	Renewable Energy New Facility Capacity 449.8MW completed
	Solar power project plans	54MW	140MW	Renewable Energy R&D KRW 4.31 billion
	Onshore wind power project plans	-	112MW	
Expand the Spectrum of Work through Energy Efficiency Innovation	ESS MSP project capacity	150 MWh	500 MWh	ESS MSP Total Project Capacity 252MWh achieved
	Campus energy efficiency project	5units	10units	Energy Conservation 4.7GWh/year
	Smart energy city construction project	2units	2units	

UN SDGs Target

- **6.3** Reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials
- **7.2** Increase substantially the share of renewable energy in the global energy mix
- **11.6** Paying special attention to air quality and municipal and other waste management
- **13.2** Integrate climate change measures into national policies, strategies and planning
- **14.1** Prevent and significantly reduce marine pollution of all kinds
- **15.1** Restoration and sustainable use of terrestrial and their services, in particular forests, wetlands, mountains and drylands

Response to Climate Change

EWP TCFD[1)]

EWP has voluntarily participated in the CDP since 2012 to evaluate objectively and make improvements to the impact of climate change response efforts and businesses. According to the TCFD recommendations, we report climate change response activities to take part in the climate change information disclosure goals of the international community. The TCFD recommendations include disclosure of information on the four major areas of governance, business strategy, risk management, and metrics and targets of disclosing climate-related information.

1) As a global association established in 2015, the TCFD promotes voluntary and consistent climate change-related information by the Financial Stability Board, delegated such authorities from the finance ministers of G20 including the Republic of Korea and heads of central banks.

Supervision of the BOD on Climate Change and Roles of Management

EWP newly organized the ESG Committee in June to create a company-wide decision-making system at the level of the BOD. The ESG Committee is composed of three non-executive directors, and its purpose is to establish ESG management strategies including climate change response activities while inspecting ESG achievements, risks, etc. In principle, the ESG Committee is held quarterly; special committee meetings can be held if necessary. Climate change response activities and major related achievements discussed by the ESG Committee are reported to the BOD. As the department overseeing ESG management, the Planning Department under the Planning Division is in charge of establishing company-wide ESG pursuance plans, identifying management tasks, conducting outcome monitoring, etc. The Climate Change & Environment Division in the working group E identifies and implements climate change response activities and relevant tasks while reporting the pursuance plans and activity outcomes to the ESG Committee under the BOD.

Major Roles

ESG Committee	Planning Department of Planning Division	Working Group E
• Establish ESG management strategies • Inspect ESG outcomes, risks, etc.	• Establish company-wide ESG management pursuance plans • Identify and monitor tasks • Identify regulatory trends, etc.	• Find tasks in the environmental sector • Carry out projects and inspect outcomes • Report pursuance plans and activity results to the ESG Committee under the BOD

Decision-Making Process

Climate Change Response Strategies

EWP has been continuously reducing its GHG emissions since 2018 through efforts to reduce coal-fired power generation through seasonal management and voluntary coal caps. To help achieve our GHG reduction target, we have reflected the LNG conversion for aging coal-fired power plants in the 9th Electricity Supply and Demand Plan, and we are in the process of constructing a new gas-combined power plant in Eumseong. We are continuing our R&D for the commercialization of future technologies in CCUS and hydrogen fields. We also implement the co-firing of biomass fuel and power plant efficiency management to minimize our carbon emissions from our power plants.

Risks and Opportunities

EWP is subject to the allocation of the GHG emissions trading scheme[1], and as the paid allocation rate of emissions rights will be increased to 10% during the third planning period (2021–2025), emissions rights purchase quantity and prices will continuously rise, thus increasing the costs for the emissions trading scheme. In addition, there will be an increase in the mandatory supply of renewable energy, and it is thus expected that costs such as for renewable energy facility investments and R&D will increase.

Meanwhile, it is possible to convert risk factors into opportunities through assertive climate action. By pursuing the UN's CDM, procuring emission rights economically and accumulating technologies and experiences through renewable R&D and expanded projects will serve as opportunities to engage in new projects and win overseas projects.

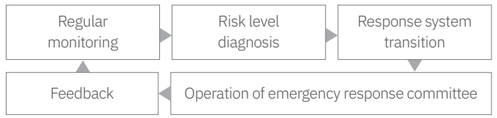
Furthermore, climate change is expected to increase the number of natural disasters that interfere with a stable power supply. EWP established mid- to long-term climate change adaptation plans by analyzing the damage scenarios of power plants resulting from natural disasters, such as droughts, heavy snow, and heatwave, to strengthen our capacities of preventing and adapting to damages from climate change. We diagnose, evaluate, and give feedback on the execution of the adaptation plans each year, and the inspection results are submitted to the Ministry of Environment. We disclose the details through our CDP reports.

1) This is a scheme wherein the government allocates annual GHG emission rights for businesses that emit GHG to allow emissions within the allocated scope; it evaluates the actual GHG emissions of the allocated business site to permit trading between business sites for leftover or deficient emission rights.

Risk Management Process Related to Climate Change

EWP manages and evaluates climate-related risks through the Risk Management Committee, Investment Review Committee, BOD, and other procedures, and we make investment decisions for businesses related to the climate crisis. In particular, we evaluate and review business and financial risks and the feasibility of large-scale investment projects—including climate action such as overseas GHG reduction projects and development projects in the renewable and new energy business sectors—through Risk Management Committee and Investment Review Committee meetings. Climate action is reflected in our investment plans over the short, medium, and long term, considering changes in the external/internal business environment, our strategic and investment directions, and the possibility for pursuing new businesses. Based on these, we establish and report the mid-to long-term financial management plans during the BOD meetings.

Risk Management Process



GHG Reduction Goals

In accordance with the Korean government's carbon-neutral policy, EWP has set a new target to reduce GHG emissions by 50% by 2035(compared to 2018) when re-establishing mid-to long-term management strategy.

Reducing GHG Emissions by 50% by 2035
(Based on the sum of Scope 1 and 2)

Means of Reduction

- Implement carbon-neutral response strategy and establish an inspection system
- Actively promote the transition to low-carbon energy, including the construction of alternatives to coal-fired power plants
- Reduction GHG emissions by reducing coal-fired power generation and implementing related policies, such as the coal cap system and the seasonal management system
- Actively promote R&D to secure core technologies for carbon neutrality (hydrogen and ammonia mixed fuel firing, etc.)
- Continue to discover and promote Korean and overseas GHG reduction projects

Current State of GHG Emissions

(Unit: 1,000 tons CO_2-eq)

Category	2018	2019	2020
Scope 1	39,431	38,944	34,817
Scope 2	85	74	89
Scope 3	12,813	11,888	10,910

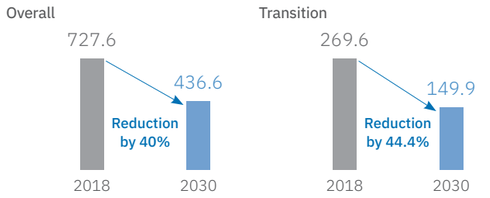
Carbon Neutrality

2030 Nationally Determined Contributions (NDC) and 2050 Carbon Neutral Scenario

The 2050 Carbon Neutral Committee reviewed and decided on the enhancement plan for 2030 NDC and "2050 Carbon Neutral Scenario" on October 18, 2021 to achieve a safe and sustainable carbon-neutral society from climate change. The 2050 Carbon Neutral Committee proposed two plans to the government for achieving carbon neutrality (net zero) through reductions in the Korean industry. The scenarios claim that coal-fired power generation must be stopped in order to minimize carbon emissions needed for producing electricity and heat. In addition, according to the 2030 NDC of reducing 40% of emissions in total GHG emissions compared to 2018, the committee proposed to the government to significantly increase the reduction goal from 26.3% to 40%. The agenda reviewed and passed on October 18, 2021 has been confirmed through the cabinet meeting (on October 27), and the increased 2030 NDC is scheduled to be presented at the 26th UN Climate Change Conference of the Parties (COP26) that will be held in Glasgow, United Kingdom, in early November.

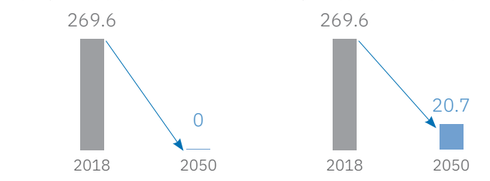
2030 NDC

(Unit: million tCO_2-eq)



2050 Carbon Neutral Scenario

(Unit: million tCO_2-eq)



Response Strategy

We are establishing the EWP 2050 Carbon Neutrality Roadmap in connection with national policies and the power plant business characteristics according to the strengthened 2030 NDC and 2050 Carbon Neutral Scenario. Following the completion of the roadmap, we plan to re-establish our GHG reduction goals and detailed strategies.

Response Strategy
(Based on the 9th Power Supply Framework Plan)

Outdated Coal-Fired Power Plants Fuel Conversion
Conversion of outdated coal-fired power plants fuel (Dangjin units 1 to 4 (2,000MW) → Shinhonam Gas-Combined Power Plant, Ulsan Gas-Combined Power Plant 5)
New Gas-Combined Power Plant
Construction of Eumseong units 1 and 2 (1,122MW)
Expansion of Renewable Generation
Procurement of 9GW renewable-energy power plant capacity by 2035, accounting for 30% of generation
Future Technology R&D
CCUS technology, hydrogen production and storage technology, P2G, hydrogen fuel cell technology
Reduction of Outside Projects
Korean and overseas reduction projects, new projects for energy efficiency
Mixed Technologies
Mixing of hydrogen and ammonia

GHG Reduction Activities

Switching from Coal-Fired Power Generation to LNG

EWP is switching from coal-fired power generation to LNG fuel for the economic and stable supply of power during the course of converting the power structure centered on thermal power into renewable energy. Coal-fired power generation that was scheduled for construction was converted to LNG generation and is under construction, and we strive to reduce coal-fired power generation by switching from coal-fired power plants 1-4 of the Dangjin Power Complex to the Honam Power Complex and Ulsan Power Complex LNG power plants. By converting such coal-fired power plants into LNG power plants (3,000MW fuel conversion), we expect a reduction of annual GHG emissions by 9.62 million tons and fine dust by 1,810 tons.

GHG reduction effect by switching to LNG

9.62 million tons/year

GHG Reduction Support Project for SMEs

EWP is helping reduce GHG emissions by supporting the construction of operational facility smart monitoring systems for small and medium-sized enterprises in Korea. Starting at 12 SMEs in 2018, we have supported the energy efficiency of total 269 enterprises including 66 in 2019 and 187 in 2020. It is expected that by helping with the energy efficiency of SMEs with difficulties of voluntarily engaging in GHG reduction projects, a total of 173,000 tons of GHG will be reduced through the next 10 years.

GHG reduction effect

17,000 tons/year

CDM[1] Business

EWP is pursuing the CDM for distributing highly efficient cook stoves to Ghana in Africa. The CDM is a system wherein investments are made in developing countries to be recognized for the reduction of GHG emissions generated in business there. We completed business registration after passing business feasibility reviews by the UN Framework Convention on Climate Change, and they is supporting 500,000 highly efficient cook stoves for Ghana. Cook stoves are cooking tools that mainly use firewood and charcoal, and it can reduce fuel use by about 30%. We expect a GHG reduction effect of approximately 700,000 tons over the next 5 years through the cook stove distribution project. We are also striving to reduce overseas GHG emissions through multiple clean development projects such as the water purification project in Uganda and the landfill gas treatment project in Myanmar.

1) A system that recognizes the GHG reduction performance of advanced countries as a result of investment projects in developing countries carried out by developed countries that are obligated to reduce GHG emissions. A business system that can provide cost-effective GHG reduction to developed countries that are obligated to reduce GHG and environmental, technical, and economic support to developing countries at the same time.

"Cook Stove" provided to Ghana

GHG reduction effect of the Ghana cook stove project

5 years, 700,000 tons

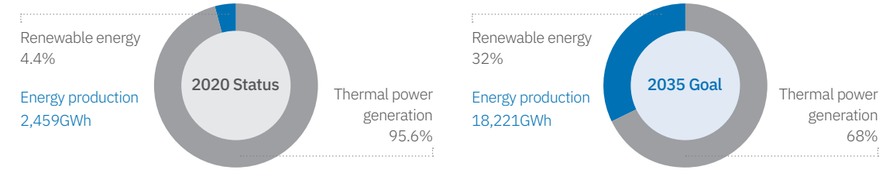
Transition into Renewable Energy

In order to respond preemptively to the energy paradigm shift, EWP is adjusting its generation portfolio with the goal of achieving 30% renewable energy generation by 2035. Accordingly, we will invest a total of 24.7trillion KRW by 2035 to procure renewable energy facility capacities of 9,000MW. Furthermore, we plan to close coal-fired power plants 1 to 4 at the Dangjin Power Complex and switch to LNG generation ahead of schedule, securing its generation portfolio by comprehensively considering business feasibility in terms of environment, economics, and technologies as well as stability of power supply.

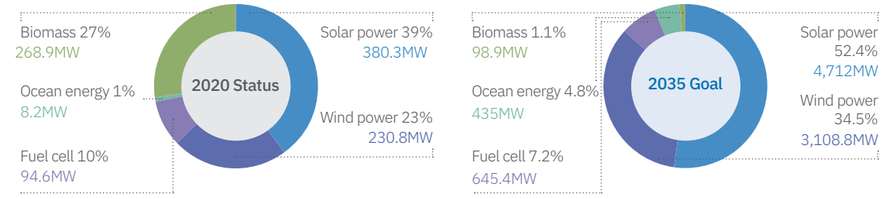
Goal

Achieve 30% Renewable Energy Generation by 2035

Proportion of Renewable Energy Generation



Renewable Energy Portfolio



Total Facility Capacity: 983MW

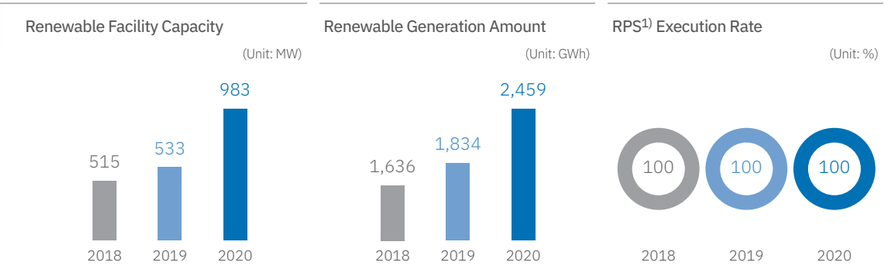
Total New Facility Capacity: 9,000MW

2020 Performance

Construct Total Facility Capacity of 449.8MW

(Dangjin ash treatment center solar power 25MW, Daesan fuel cell 50.2MW, Gadeoksan wind power project in Taebaek 43.2MW, etc.)

Renewable Energy Generation Growth



1) Renewable portfolio standard (RPS): System that requires a generation business possessing generation facilities with capacity of more than 500MW to use renewable energy at a certain proportion of the total generation amount or higher for supply

EWP Green New Deal

As part of the “EWP Green New Deal” strategy, EWP plans to invest approximately KRW 3,335 billion in the renewable energy sector, including solar power, wind power, and hydrogen, by 2025. We are preemptively reacting to the energy paradigm shift through large-scale investments in renewable energy, and we expect to create approximately 8,600 jobs in addition to energizing the economy by fostering the wind power and solar power industries in Korea.

	Solar Power, K-Solar 1000 Project	Wind Power, K-Wind 2000 Project
Scope	Invest approx. 263 billion KRW by 2025 → Pursue 1,260MW onshore and surface water solar power project	Invest app. 654 billion KRW by 2025 → Pursue construction of 1,930MW onshore and marine wind power plants
Features	In order to strengthen the competitiveness of the solar power industry, install 100% of major parts and materials with Korean-made products (cells, modules, inverters, etc.)	Install 200 Korean-made wind power plants Localization of wind power generator system and major parts R&D and testing
	100% Use of Korean-Made Equipment and Material	**Nation’s First Profit-Sharing Business Model**
	Jara-Ri Solar Power Plant Project	**Gadeoksan Wind Power Plant Project**
	EWP invested approximately KRW 4.2 billion (facility capacity 41.4MW) in the solar power plant project being implemented at a waste salt farm site in Jara-ri, Sinan-gun. For the project, we used waste salt farm sites that cannot be used for farming or which have low crop yield due to their high salinity. It is a “resident participation-type project” wherein profits from selling electricity are returned at the rate of investments made by local residents in the solar power project. We plan to use only Korean-made equipment and material in this project to strengthen the domestic solar power industry’s competitiveness.	The Gadeoksan wind power plant project is the first “profit-sharing wind power plant project” in Korea wherein residents participate in and share profits from selling electricity. We are constructing a 110MW wind power plant complex that will be completed in three stages by 2023 on Gadeoksan Mountain in Taebaek. The project is expected to contribute to revitalizing the local economy of Gangwon-do while reducing GHG and fine dust by 100,000 tons annually.

View of the Jara-ri solar power plant

Gadeoksan wind power plant complex in Taebaek

Anticipated Effects	Creating jobs and fostering the renewable energy industry of Korea **Creating Sustainable Value**

Biofuel Development

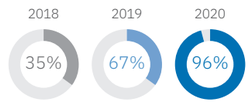
EWP converts organic waste resources into biofuel to produce electricity as part of its efforts to circulate resources. Bioenergy refers to the energy used as liquid, gas or solid fuels or as electric or thermal energy through direct or biochemical and physical conversion processes of biomass (collective name for organic life). As most wood pellets (biofuel), major types of fuel for bioenergy generation, are imported, we reduce the number of imports by converting organic wastes generated in Korea into biofuel while producing eco-friendly energy. We developed wood pellets and organic solid fuels, and they are actively being used. We are also developing unused biomass (mushroom medium[1)], fruit tree trimming, etc.) as fuel with the goal of achieving 100% localization of biofuels. Through this, we expect that producing eco-friendly energy will be possible while increasing revenue for the farms as well in Korea.

1) Solids made with sawdust, etc. to grow and proliferate mushrooms

Diversification of Korean-Made Biofuels

Korean-made wood pellet | Organic solid fuel | Unused forest bio | Trees damaged by forest fires

Biofuel Localization Rate



Environmental Effects

GHG Reduction

119,000 tons CO_2-eq

Secured REC

67,000

Economic Effects

Increased Farm Revenue

KRW 0.8 billion

Korean Biofuel Procurement

80,000 tons/year

Development of Fruit Tree Trimming Biofuel

EWP uses fruit tree trimmings–which are agricultural wastes–to develop fuel for power generation. Fruit tree trimmings are lumber created during the process of pruning to improve the quality and productivity of fruit trees such as apples, grapes, and pears. Fruit tree trimmings have a high rate of being incinerated and abandoned due to shortage of labor, lack of crushers, or lack of demand. Accordingly, we aim at converting fruit tree trimmings into biofuel for the first time in Korea to produce eco-friendly electric and heat energies. We signed an MOU with private companies and Korea Fruit Growers Association for the smooth supply of fruit tree trimmings. This is expected to invigorate the biofuel industry, improve the farm environment, and increase revenue for farms.

MOU on fruit tree trimming agricultural biomass fuel business

Using Forest Bio Damaged by Forest Fires and Unused Timber

EWP signed a memorandum of understanding (MOU) with the Gangwon-do Provincial Government to convert trees damaged by fires and discarded as waste into biofuels. We intend to recycle the trees to protect the forest and, at the same time, to contribute to boosting local economies. In addition, we entered into another business agreement with the National Forestry Cooperative Federation to receive unused forest biomass fuel. Unused forest biomass is produced with wood chips and is used by the fluidized bed power plant of the Donghae Power Complex. By converting trees damaged by forest fires and unused timber into biofuel, we are leading a desirable resource circulation and the promotion of Korea’s forestry industry.

MOU on unused forest biomass

Eco-Friendly Technology Development

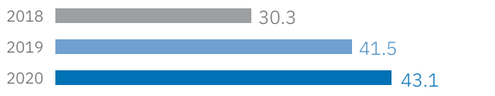
EWP strives to procure next-generation future core technologies by developing new eco-friendly technologies. The R&D Promotion Department oversees research and development and engages in R&D by cooperating with industry, university and research institutes. We are securing technological competitiveness by localizing core generation facilities and are establishing a stable facility operation platform.

R&D System

Strategic Goal	**Global Energy Leader in Innovative Technology**		
Mid- to Long-Term Execution Plan	Renewable Energy Technology Development	Development of Generator Operation Technologies	Technological Development Cooperation/Support
Main Goals	**Achieve 1GW** of hydrogen fuel cells by 2030	**Achieve 90% Localization** of generator parts by 2024	**Invest a Total of 26.1 Billion KRW** in industry, university and research institutes joint R&D by 2025

R&D Cost (Unit: KRW 100 million)

Renewable Energy R&D[1)] (Unit: KRW 100 million)



1) Includes renewable R&D costs in the research and development expenses

Transformation of Hydrogen Vehicle Fuel Cells

EWP became the first in the world to implement “hydrogen vehicle” technologies to produce electric power. We operate a 1MW generator fuel cell test facility, where Hyundai Motor’s “Nexo hydrogen vehicle” fuel cell module is used to produce and supply electric power. As most fuel cells in korea are based on overseas technologies, high parts replacement costs and maintenance costs are incurred. Through this project, we aim at enhancing industrial competitiveness and achieving parts localization by using hydrogen fuel cell equipment and generator parts of private companies in Korea.

Hydrogen fuel cell generation system

Technological Development of Core Parts “Made in Korea” for Wind Power Plants

EWP is doing its best in the R&D of core parts for wind power to achieve energy independence. Wind power generation technologies, parts, and systems are currently heavily dependent on imports. Accordingly, we focus on R&D to localize the direction and wings adjustment gearbox for large wind power plants through our partnerships with the private sector. As a result, we acquired patents and international design certifications that are being applied to the site for performance verification. With these technologies, we expect that foreign-made gearboxes will be replaced with these products to save on wind power generation system parts replacement and maintenance costs, while also allowing immediate repairs in case of malfunctions. As a result, it is expected to have the effect of expanding the supply of renewable energy.

Presentation on localization performance for core parts of wind power plants

“Solar farm” Technological Innovation for Both Farming and Electricity Production

Farming-type solar power generation can be used not only to produce eco-friendly energy but also to earn profits from farming. In the past, the installation of farming-type solar power equipment created shadows that interrupted the growth of crops, at the same time it required high installation costs. In order to solve this problem with farming-type solar power generation, EWP cooperated with Yeungnam University to develop 600nm LED wavelength technologies that promote photosynthesis and rainwater storage and sprinkler technologies for areas with inadequate farm water supply. As a result, production improved by more than 17% compared to general open land, and we applied easy-to-install structures to reduce installation costs by 30%.

Farming-type solar power generation in Paju, Gyeonggi-do

R&D on “Pavement Block Solar Power”

After two years of R&D with a private company, EWP successfully commercialized “pavement block solar power.” Pavement block solar power is a technology that combines street blocks and solar power functions; thus requiring no separate generation sites. Because block-type solar power modules are installed on the ground, they have approximately 30% less efficient compared to regular models due to the sunlight incidence angle, shade, and geothermal heat. In order to overcome this issue, we applied condenser lenses that function as magnifying glasses to the block surface to minimize the drop in efficiency (approximately less than 20%). Our plans include collaboration with local governments to apply this system in parks and bicycle roads and verify the technology.

Application of “pavement block solar power”

Technological Development on Coal Distributor Room Fugitive Dust Collection System

EWP successfully developed a “coal distributor room fugitive dust collection system” through joint research that lasted one year with private company Micro-One in accordance with the government’s air pollutant mitigation policies. Through this research, we developed a “fugitive dust capture system” and an exclusive filter, and we filed applications for three patents. The evaluation of the dust collection performance of this dust reduction technology showed that it had a 97% fugitive dust reduction effect compared to the existing technology. By installing and operating this technology at the coal distributor room of the Donghae Power Complex, we aim to reduce air pollutant emissions while providing a safe, clean work environment for workers.

Joint R&D performance presentation between EWP and Micro-One

Fugitive dust reduction effects

97%

Minimizing Environmental Impacts

Environmental Management

EWP preemptively responds to environmental laws and regulations and establishes an environmental management system focusing on people. We monitor our entire power production process according to our strategic direction of clean energy production, local community accompaniment, and sustainable system establishment and also transparently disclose environmental data. The Climate Change & Environment Division is in charge of environmental management and is composed of the Environmental Management Department, Climate Change Countermeasure Department, and Carbon-Neutral Strategy Department.

Environmental Management System

Vision	**Energy Company Loved by Citizens through Environmental Management Centering on People**		
Strategic Direction	Production of Clean Energy	Partnership with Community	Establishment of Sustainable System
Strategic Project	• Create a pleasant air environment • Strategic plans for climate change • Improve water quality and expand resource circulation	• Create participatory-type environmental monitoring • Communication with stakeholders • Pursue social values	• Establish a comprehensive preventive management system • Lead the environmental technology development • Strengthen environmental management focusing on people

Environmental Management Organization System

Climate Change & Environment Division

Environment Management Department	Climate Change Countermeasure Department	Carbon-Neutral Strategy Department
• Oversee the establishment and promotion of environmental policies • Establish and implement environmental policies and response strategies • Manage environmental pollution prevention equipment and perform equipment performance enhancement activities • Manage the entire process in air and water quality, pollutants, etc.	• Develop and pursue GHG reduction projects both in Korea and abroad • Develop and commercialize GHG reduction technologies and methodologies • Korean and international cooperative projects to respond to climate change	• Carbon-neutral national policy response, establish future strategies • Establish GHG reduction operation plans and manage goals • Work related to the allocation of emissions trading scheme

Environmental Management System (ISO 14001) Certification for All Power Complexes

EWP has been maintaining environmental management system (ISO 14001) certifications for all of its power complexes. As an international standard for environmental management systems, ISO 14001 is a certification provided based on evaluations and reviews by a third-party certification institute on whether a company has an environmental management system for continuously improving environmental performance. While establishing the basis for an environmental management system that meets ISO 14001, we are enhancing the efficiency of environmental management.

Environmental Policy

EWP has been operating the “Environmental Management Regulations” we declared in 2019. By prescribing environmental management as our basic fundamentals, we aim at configuring systematic environmental management while enhancing the environmental management awareness of all our employees. Environmental policies contain information on environmental management activities (environmental education, inspection, etc.) and environmental conservation activities (air, water quality, wastes, etc.). We disclose environmental management regulations that include environmental policies to the public.

Green Company Certification for 26 Years in a row

The EWP Ilsan Power Complex acquired Green Company certifications for the longest period (26 consecutive years) in the power generation industry. The Green Company program certifies companies that have voluntarily established environmental management systems and excellent environmental policy execution and management levels. The Ministry of Environment evaluates and designates companies every three years. In particular, the Ilsan Power Complex was recognized for its environmental performance, such as being the first public institution to acquire integrated environmental authorization. Also, with the complex investing preemptively in environmental facilities and making environmental and social contributions together with the local community, it made a splendid achievement of receiving the 2020 Green Company “grand prize.”

Green Company Designation Status

Category	Date of first designation	Valid period
Ulsan Power Complex	Feb. 24, 2021	Feb. 23, 2024
Ilsan Power Complex	Mar. 9, 1996	Jul. 26, 2024

Internal Environmental Experts and Environmental Job Training Programs

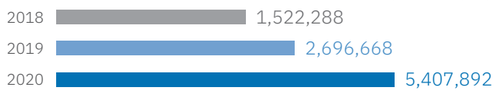
EWP develops internal environmental experts and specialists to realize human-centered environmental management. We have developed and operated job training programs for environmental talents cooperated with a nearby university. In 2020, the education was provided to 125 senior environmental managers. The programs require 24 hours of mandatory education per person.

Expand the Purchase of Green Products

EWP is taking part in purchasing green (eco-friendly) products to contribute to resource conservation and minimizing environmental pollution. We carry out mandatory green product purchasing according to the Ministry of Environment’s green product purchase guidelines. Purchase plans and outcomes are tallied and reported to the Ministry of Environment every year.

Green Product Purchase Performance

(Unit: KRW 1,000)



Improving the Efficiency of Power Generation Facilities

EWP monitors and inspects generator facility performance using a real-time performance monitoring system ‘e-Brain Center’ to improve energy efficiency. The ‘e-Brain Center’ is a system that inspects generation facilities and detects anomalies in advance to prevent reduced performance due to facility issues such as abrasion and damages. In addition, we are discovering energy reduction plans based on the ISO 50001 (energy management system) standards for continuous improvements.

Amount of Energy Use

(Unit: TJ, GJ/MWh)

Category	2018	2019	2020
Energy Consumption	484,063	469,057	420,898
Energy per unit power generation	9.05	9.22	9.24

Ecological Environmental Conservation Activities with Local Communities

EWP teamed up with local communities to practice conservation activities for the environment and ecosystem so as to raise awareness of the importance of the environment. In 2020, we collaborated with a non-governmental organization to pursue the firefly restoration project. Aside from collecting microplastics as part of our effort to preserve ecology, we held an exhibition to alarm the public about the environmental issues and the importance of eco-friendly energy in conserving the marine environment.

Ecological Environment Conservation Activities

Category	Collaborating institute	Key achievements
Ecosystem restoration	• Starlight Firefly Restoration Research Association	• Establish habitat for fireflies (10,000 fireflies)
Collect microplastics in the sea	• Korean Federation for Environmental Movements • Korea Maritime Rescue and Salvation Association	• Marine environment ecosystem preservation • Collection/Disposal of marine wastes (244 tons)
Energy/ Environmental education	• Korean Federation for Environmental Movements • Ulsan City, Office of Education	• Held energy/ environmental exhibition (participated in by 8,777 people)

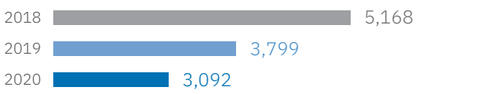
Ensuring Clean Air Quality

Air Pollutant Management System

EWP is implementing fine dust reduction plans it has established to minimize air pollutants generated during the electricity production process. With the goal of reducing fine dust emissions by 85% (compared to 2018) by 2035, we pursue construction of coal storage sheds, improvement of environmental pollution prevention facilities, and reduced operation of coal-fired power plants. We established stricter internal standards than the legal standards for air pollutant emissions concentrations to carry out proactive environmental management. As a result, we reduced fine dust emissions by 40% in 2020 compared to 2018. We collect and monitor air pollutant emissions data in real time using an automatic chimney measuring device, and the measurement results are transmitted to the Continuous Emission Monitoring System (CleanSYS) of the Korea Environment Corporation for disclosure.

Fine Dust Management Performance

(Unit: tons)



Air Pollutant Management Performance

(Unit: tons)

Category	2018	2019	2020
NOx	10,932	7,813	6,620
SOx	13,308	9,724	6,796
Dust	523	509	411

Zero Fugitive-Dust – “Construction of Coal Storage Sheds”

EWP is pursuing the construction of coal storage sheds to prevent the fugitive of coal caused by strong winds from the sea. The project internalizes 100% of fuel storage facilities at the 1.32 million-ton Dangjin Power Complex until 2024 by investing approximately KRW 300 billion. Through this, we target zero fugitive-dust from the Dangjin Power Complex. Furthermore, it is building a new fuel storage facility to minimize biomass fuel fugitive-dust at the Donghae Power Complex.

Environmental Pollution Prevention Facility Performance Improvement Project

EWP intends to minimize air pollutant emissions by achieving maximum efficiency of environmental pollution prevention facilities in power plants. Plans include replacing all outdated environmental facilities (FGD, deNOx system, dust collection equipment) at the Dangjin Power Complex and Donghae Power Complex by investing approximately KRW 1,096.2 billion by 2026. We expect that switching to high-efficiency equipment will realize an annual fine dust reduction of 1,110 tons (as of 2026). Furthermore, we spare no efforts to minimize air pollutant emissions by completing the environmental facility reinforcement of deNOx system facilities and dust collection facilities for all gas-combined power units (14 units, Ulsan Power Complex and Ilsan Power Complex).

NOx emissions per unit power generation (kg/MWh) compared to 2018

Ulsan Power Complex 75%↓ (0.450→0.114)

Ilsan Power Complex 45%↓ (0.450→0.248)

Increased Use of Low-Sulfur Coal and Bio-Heavy Oil for Eco-Friendly Generation Fuel

EWP has replaced high-sulfur coal with low-sulfur coal as generator fuels to reduce sulfur oxides, which are major sources of fine dust. We mix bio-heavy oil in low-sulfur oil for combustion.

Fine dust emissions reduction effect

876 tons

Expansion of Coal-Fired Power Genration Reduction Operations

EWP is operating a reduced number of coal-fired power plants when there is a high concentration of fine dust to reduce fine dust emissions.

Fine dust emissions reduction effect

364 tons

Stopped operation (31 days in 2019 → 69 days in 2020)
Limited operation (46 days in 2019 → 124 days in 2020)

Water Quality Improvement and Increased Resource Circulation

Water Quality and Wastewater Management System

EWP monitors the water pollutant concentration 24/7 through our environmental monitoring system. Wastewater is categorized into wastewater from generators and FGD facility and sent to treatment facilities via different collection facilities. We treat wastewater with biological and chemical treatment methods and recycle it as power generation water or discharge it by applying strict standards than legal standards.

Efforts to Improve Water Quality - “Technology Development for FGD Wastewater Treatment Facilities”

EWP had high total nitrogen (T-N) emissions among its water pollutants. In order to resolve this problem, we have pursued the technological development of metallic oxide water methods since 2015. During the technological development and on-site performance verification process, we confirmed that the total nitrogen emissions concentration decreased by 71% (28→8ppm) in 2020. We also completed the construction of the wastewater treatment facility based on the metallic oxide water method at units 1 to 4 of the Dangjin Power Complex in 2021.

Efforts to Reduce Industrial Water Use

EWP recycles wastewater generated from generators. In January 2020, we partnered with a private company to begin the development of the “membrane[1)] advanced wastewater treatment system.” We applied the system to our sites, and we evaluate the system’s performance with the goal of recycling 70% of wastewater. In addition, the use of industrial water is reduced by recycling of the FGD wastewater as coal ash transfer water or FGD water.

1) Thin solid film for blocking impurities and allowing only clean water to pass

Water/Wastewater Use

Category	2018	2019	2020
Seawater use(million tons)	6,187	6,315	5,962
Water use(thousand tons)	12,821	12,099	12,758
Wastewater generation(thousand tons)	4,055	3,795	4,133

Wastewater treatment facility completion ceremony

Expanded Waste Treatment Procedures and Waste Recycling

EWP treats wastes legally generated in its business process, and we promote waste recycling to contribute to environmental conservation. In particular, we actively discover sources of demand for major wastes in generators—such as coal ash and FGD gypsum—and recycle them in various sectors such as raw materials for cement, gypsum boards, and filling materials. Through such efforts, we achieved 100% coal ash recycling rate and 96% FGD gypsum recycling rate in 2020. Furthermore, we collect, transport, and store general waste and designated waste by type and form by judging whether they can be recycled. When discarding wastes, we make sure to check the possibility of recycling; if recycling is not possible in any way, the wastes are treated or consigned according to the relevant waste management laws and regulations.

Coal ash recycling rate

100% for 2 consecutive years

Waste Management Performance[1)]

(Unit: tons, %)

Category		2018	2019	2020
General Waste	Generated amount	33,046	29,015	24,542
	Recycled Amount	27,330	22,035	18,570
	Recycling Rate	83	76	76
Desig-nated Waste	Generated amount	3,216	1,820	2,059
	Recycled Amount	1,229	1,113	1,203
	Recycling Rate	38	61	58

1) Excluding coal ash

Status of Water Pollutant Management

(Unit: tons)

Category	2018	2019	2020
COD	13	7	7
SS	8	6	6
T-N	22	15	18
T-P	0.09	0.04	0.06

Energy Efficiency

ESS MSP

ESS MSP is the energy cost reduction business model developed by EWP for the first time in Korea back in 2017. This project identifies needs related to reducing energy costs for companies that consume high amounts of energy while distributing ESS and supporting customized energy efficiency solutions for clients. We established ESS totaling 252MWh in 14 sites nationwide.

Construction of Smart Energy City "Seocho-gu Smart e-City"

EWP is enhancing energy efficiency by constructing smart energy systems in urban public facilities and large buildings. We implemented an integrated smart energy system encompassing smart electricity control, voltage optimization, and ESS in Seocho-gu, Seoul. The smart energy system predicts the electric power demand and increases energy efficiency. This is expected to save 866MWh of electricity annually while reducing GHG by 970 tons. Moreover, we intend to contribute to invigorating the local economy by sharing profits amounting to KRW 6 billion (over 15 years) that were generated through energy reduction with the local economy.

"Dong-Eui University" Campus Energy Efficiency Project

EWP constructed the nation's largest smart device and cloud-based energy efficiency system at Dong-Eui University in 2020. Through this, it is expected to reduce electric usage by more than 20% per month while also reducing power demand by approximately 35GWh for the next 10 years. We will share part of the profits with Dongui University, which will be used to improve school welfare.

Strengthening the Stability of the Energy Efficiency Project

As part of its efforts to prepare for safety-related accidents such as ESS fires, EWP operates a 24-hour surveillance system equipped with a special fire extinguishing system, environmental monitoring equipment (such as temperature, humidity, and smoke controllers), and video surveillance in all business sites. We strive to achieve zero ESS incidents by strengthening the safety elements.

Energy Efficiency completion ceremony at Dong-Eui University

Seocho-gu Smart e-City

Integrated operation center for new energy business

Energy Efficiency Performance

Environmental Value[1]		Economical Value[2]
Electric power usage reduction	GHG reduction effect	Sharing profits with the community
4.7 GWh/year	2,840 tons/year	156 billion KRW (over 15 years)

1) Seocho-gu Smart e-City+Campus Energy Efficiency project 2) Economical value: Seocho-gu Smart e-City+Seocho-gu Smart e-City+ESS MSP

Stakeholder Interview

1. Please introduce yourself, and what are the duties of the Energy Transition Division?

Hello? I am in charge of the development of customer-tailored energy efficiency projects in the New Energy Business Department of the Energy Transition Division. In accordance with government policy, our division is leading the company's energy transition by actively promoting the development of new power sources using eco-friendly fuels, the expansion of new energy business associated with new industries, and the development of businesses using hydrogen to respond to climate change.

2. In which direction is the power industry changing?

In response to the climate change crisis, the paradigm of the energy market is changing from supply management to demand management along with the expansion of eco-friendly energy supply. An example is the emergence of a VPP that integrates and operates several types of distributed energy sources into one place. The VPP integrates and manages distributed power generation facilities, such as renewable energy generation facilities, ESS, and energy efficiency systems, as well as demand for electricity through cloud-based software. As such, energy can be operated more efficiently through the prediction of the variables of power supply and demand in advance. That is why the VPP is projected as an effective means to replace an existing large-scale power plant.

3. In what way is energy efficiency so important?

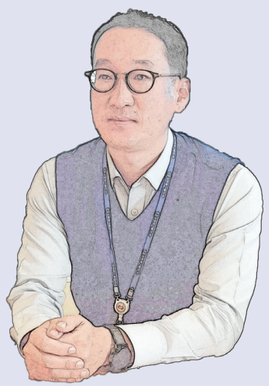
Energy efficiency is the number one energy source and accounts for the largest portion of the potential for additional GHG reduction; it is the most economical method of reducing GHG as it costs less than new and renewable energies. Korea ranks 33rd among 35 OECD countries in terms of the energy basic unit(Energy Consumtion/GDP) meaning that we have an inefficient form of energy consumption with an extremely high energy-saving potential. The concept of energy efficiency is also being emphasized as a core strategy for energy transition in that it is not limited to reducing power consumption, but it can also improve system efficiency and stability through the optimal operation of the power system.

4. What makes EWP's energy efficiency efforts special compared to other companies' endeavors?

We succeeded in developing an energy efficiency business model using an energy storage device for the first time in Korea in 2017. We applied the optimal operation algorithm technology based on the power usage pattern. We have obtained two independent patents for the business model. The model enables our customers to enjoy energy-saving effects from the first year of business without initial investment or debt on their part since it is a win-win type of business in which profits are shared when efficiency improvement is maximized through continuous operational optimization.

5. What are the goals and directions of the company's energy efficiency efforts?

We are planning to promote the energy efficiency improvement project as a major means of not only local energy savings at each single business site but also company-wide demand management in connection with the VPP system. We will use energy storage devices as an alternative to supplementing the intermittent power generation of renewable energy and as a major means of reducing demand along with the energy efficiency system that can contribute to the stable operation of the power system.



New Energy Business Department Senior Manager
Lee, Hyun-Nam

Social | Realize Trusted Social Values |

STRATEGY

Goals	Key KPIs	2021 → 2025	2020 Performance
Establish a Base for Coexistence with Local Communities and SMEs	Community contribution recognition program level	Level 5 → Level 5	Amount Spent on Social Contribution: KRW 1.7 billion
	Shared growth evaluation ranking	Excellent → Excellent	Shared Growth Evaluation (10 consecutive years): Excellent Rating
Enhance Disaster Safety Management and Information Security System	Industrial accident rate	0.05% → 0.03%	Death Rate in Industrial Accidents per Ten Thousand Employees: 0‰
	Death rate in industrial accidents per ten thousand employees	0‰ → 0‰	National Intelligence Service Information Security Status Evaluation: No. 1 Among Public Institutions (90 points)
	Security evaluation goal administered by the government	Very Good → Very Good	
Fulfill Social Responsibilities through Human Resource Management	Human rights management index	90 → 95	Korean Standards Association: Excellent Human Rights Management Company Certification
Fair Personnel Management Considering the Socially Disadvantaged	Mandatory employment of persons with disabilities	3.4% → 3.8%	Permanent Employee Conversion Rate: 100%
	Priority hiring of patriots and veterans	9% → 9%	

UN SDGs Target

- **1.3** Achieve substantial coverage of the poor and the vulnerable
- **3.8** Achieve universal health coverage, including financial risk protection
- **5.5** Ensure women's full and effective participation and equal opportunities
- **8.3** Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation
- **10.3** Ensure equal opportunity and reduce inequalities of outcome
- **11.5** Substantially decrease the direct economic losses relative to global gross domestic product caused by disasters

Social Contribution

Social Contribution System

EWP develops social contribution programs according to changes in the internal and external environments through the Social Contribution Department of the Social Values Promotion Division, while pursuing strategic social contribution in connection with its line of work. Founded in 2004, the "Hand of Love, Light of Hope" volunteer corps is composed of about 11 teams and 2,500 people from all businesses sites to practice the joy of sharing with the local community. Under the slogan "EWP e-Together [Companionship]," we pursue various social contribution programs by selecting three major themes such as youths, local communities, and the socially disadvantaged. In 2020, we carried out digitact (digital + contact) social contribution activities in earnest to practice a new way of sharing during the COVID-19 pandemic.

Social Contribution System

Vision	The Trusted Energy Company that Performs Social Responsibility through Sharing Practices	
Slogan	EWP e-Together [Companionship]	
Goal	Happy Companionship with the Local Community through "Happy Energy Dream"	
Strategies	Direction Transition to Online-Offline Hybrid Social Contribution Activities	Business-related Social Contribution in Response to Citizens' Needs
	*Three Priority Themes: Youth, Community, Social Discrimination	
Projects	"Living with COVID-19" Reestablishing the Direction of Social Contribution	Strengthening of EWP Branding through Resolution of Citizen Issues / Boosting Local Economy through Support of Socioeconomic Organization

Social Contribution Committee

EWP objectively evaluates its social contribution performance with the participation of outside experts and operates the Social Contribution Committee to review project plans. The Social Contribution Committee is an internal advisory board made up of three outside experts in social contribution and three internal experts.

The 1st Social Contribution Committee meeting

Social contribution recognition program

CSR in the community by all business sites C

Social Contribution Performance

Social Contribution Expenditures (Donations)

(Unit: KRW 100 million)

Employee Volunteering[1)]

(Unit: hours, persons)

Category	2018	2019	2020
Total volunteering hours	63,473	66,372	56,829
Average volunteering hours per employee	29.4	30.8	26.1
No. of employees who volunteered	2,162	2,155	2,180

1) Due to the spread of COVID-19, volunteering programs and volunteering standards decreased (25 hours → 20 hours)

Special Response to COVID-19

In order to overcome COVID-19 together with the community, EWP made its major social contribution activities contactless, and we have been pursuing social contribution activities customized to the COVID-19 pandemic.

2020 COVID-19 support activities

Disinfection / Quarantine support	Support for vulnerable class	Support for contactless life	Recovery from economic crisis
• Delivered disinfection/quarantine goods to local children's center, welfare centers, and public facilities • Snacks for medical staff	• COVID-19 relief fund for the socially disadvantaged • Assistance for extremely impoverished classes	• Support for online learning equipment at children's centers and welfare centers • Support for overcoming the coronavirus blues such as providing AI speakers	• Promoted consumption at traditional markets • Purchased local agricultural and regional products • Support for concert production costs

94 times, Approx. KRW 1.2 billion

"Hidden Helper" at the Front Lines to Fight COVID-19

In March 2020, EWP delivered snacks and fruits to encourage medical staff and volunteers at the pre-screening centers working at the front lines to fight the COVID-19 pandemic. In particular, we delivered fruits and snacks purchased from local traditional markets to help revitalize the local economy. In addition, we aim at becoming a reliable supporter for the front liners against COVID-19 by providing winter supplies to the medical staff at pre-screening centers in Ulsan in last December.

Support for Digital Education Infrastructure

EWP has worked hard to help with the issues of students having difficulties with digital learning as schools had to operate online due to COVID-19. In order to help with the studies of students, we donated 370 computers, keyboards, and other IT devices to 59 welfare centers in Ulsan in October 2020.

IT equipment donation ceremony

Global Efforts to Overcome COVID-19

EWP also donated quarantine items—300 protective clothing and quarantine goggles—to the Tabalong community in Indonesia to help stop the spread of global COVID-19. Tabalong is where EWP operates the Kalsel-1 Power Plant, and we have maintained friendly relations with the community by operating Korean language schools and fostering talents at local universities. Furthermore, we donated COVID-19 diagnosis equipment and kits worth USD 190,000 (KRW 230 million) to Jamaica in April.

Exemplary Employees to Beat COVID-19

At EWP, the executives, managing directors, and non-executive directors agreed to return about 5% of their salary for eight months to help the local community suffering from the spread of COVID-19. KRW 200 million collected from the salaries returned was used for small business owners and vulnerable classes near our business sites and headquarters, and we made efforts to share in the difficulties faced by the local communities due to COVID-19 and to overcome the crisis together.

Primer for Economic Recovery - "Good Prepay" Relay Campaign

EWP has been pursuing prepayment/pre-purchase to beat the stagnation of the local economy as COVID-19 persisted. We support small business owners and SMEs facing difficulties due to the rapid decline in revenue by creating consumption demand such as making prepayments for work and pre-contracts for events scheduled for the second half of the year.

Social Contribution Activities Reflecting the Work Characteristics

"Happy Energy Voucher" for the Energy-Vulnerable in Welfare Blind Spots

EWP operates the "Happy Energy Voucher" program, which takes the lead in resolving energy poverty in the community by supporting energy goods and local currency, etc., so that members of the lower-income class who are in the welfare blind spots of the government policy may spend cooler summers and warmer winters. In 2020, we shared Happy Energy Voucher funds worth 80.58 million KRW in all to 1,243 lower-income households near EWP's business places such as in Ulsan and Yeosu.

EWP energy voucher hand-over ceremony

"Fun (Sinbaram) Energy School" to Foster Future Energy Experts

EWP operates a "Fun (Sinbaram) Energy School" program with power group companies to enhance the understanding of and interest in renewable energy among students and provide the opportunity to explore career paths in the energy sector. In 2020, we carried out social contribution activities in a contactless digitact method amid the COVID-19 pandemic. About 2,790 students participated in the EWP Fun (Sinbaram) Energy School program.

EWP Fun (Sinbaram) Energy School kick-off ceremony

HIGHLIGHT

Donation Project Opened to Everyone by Walking - "EWP Energy 1004"

As one of the representative social contribution activities of EWP, "EWP Energy 1004" provides solar panels to vulnerable neighbors when the number of steps reaches a certain goal measured through a smart application (Walk On). First begun in 2019, "EWP Energy 1004" offers solar panels to the local disadvantaged, such as co-housing, senior welfare facilities, and local children's centers, by donating steps in everyday life. With the 8th project in March 2021, we donated 4.8kW solar panels to Baekma High School. Through this, we aim at providing a shelter wherein students can rest comfortably and enhancing interest in renewable energy. Thanks to the enthusiastic participation of citizens and employees, we accrued the target number of steps to walk around the world (60 million steps) in just one month.

Solar power shelter at Baekma High School, Gyeonggi-do

Traces of EWP Energy 1004

Unit 1	Ulsan Mustard Seed Co-Housing (Oct. 2019)
Unit 2	Dangjin Keunpyeonggang Senior Care Center (Dec. 2019)
Unit 3	Donghae Haeoreum Local Children's Center (Mar. 2020)
Unit 4	Ulsan Shinhwa Village Senior Citizen Center (Jun. 2020)
Unit 5	Chungbuk Cheongbori Local Children's Center (Nov. 2020)
Unit 6	Jeonnam Yeosu Happy House Care Center(Dec. 2020)
Unit 7	Dangjin Sambong Elementary School (Dec. 2020)
Unit 8	Goyang Baekma High School (Mar. 2021)

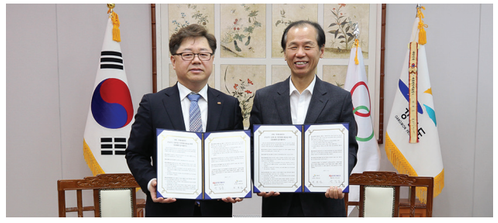
Happy Companionship Activities

"Gangwon-do Carbon Offset Peace Forest" to Build a Forest for Absorbing GHG

EWP established a Carbon Offset Peace Forest by donating 3,000 pine trees to Gangwon-do, which was razed by forest fires. We planted a total of 3,000 pine trees at Mangsang Beach and Goseong Beach in Gangwon-do, with the GHG emission rights (1,707 tons CO_2-eq) procured through this forest donated to Gangwon-do. In particular, we plan to reinvest profits from GHG emissions trading to return to society, such as forest development, through this, we aim to create sustainable values.

"Café of Forgotten Orders" to Support the Independence of People with Developmental Disabilities and Seniors with Dementia

EWP opened the first "Café of Forgotten Orders," which aims at improving awareness of people with dementia or developmental disorders and supporting their social independence. At "Café of Forgotten Orders," people with developmental disabilities or seniors with dementia serve coffee; the mood of the cafe is for customers to be understanding and tolerant even if their orders are forgotten or the wrong beverage is served. We offer a window of communication between visitors and people with developmental disabilities or dementia, and we aim at helping them make relations and continue their social activities. Furthermore, we donated 18,000 eco-friendly paper straws to add meaning to the event.



Signing ceremony for the Gangwon-do Carbon Offset Peace Forest

First branch of Café of Forgotten Orders

Donation Programs

Employees at EWP make voluntary donations through the "Neighborly Love Donation" program. "Neighborly Love" is a program that automatically deducts KRW 1,000 to 20,000 from the wages for consenting employees. In addition, we operate the "Match Grant" program wherein the company matches the donations made by employees in order to enhance voluntary participation rates. We have donated approximately KRW 2.7 billion in accumulated amount to society to practice love for our neighbors since 2010.

Voluntarily donated amount in 2020

KRW 224.54 million

Upcycling and Sharing Activities - "Rediscovery of New Uses"

In order to protect the environment through small actions in everyday lives and to spread the culture of donating among employees, we have been carrying out the "Rediscovery of Reuse" upcycling[1] campaign. Through a total of 10 sessions since 2019, 7,310 used items collected through the voluntary participation of employees were delivered to local welfare institutes. In 2020, 400 whale doll kits made by recycling waste plastics were delivered to the children's cancer association and children's welfare facilities. In addition, 1,000 eco-bags made of waste plastics were produced and delivered to employees and local traditional markets as we take the initiative to create social values for the environment and community.

1) As a coined word for "upgrade" and "recycling," the term is used for going beyond simply recycling resources to create a new product with greater quality or value.

Ceremony for donating "whale dolls" made of waste plastic

Shared Growth

Shared Growth System

EWP pursues shared growth with SMEs based on communication and cooperation. The Corporate Partnership & Procurement Division's Cooperative Partnership Center is in charge of the shared growth of SMEs. It operates various shared growth systems in four main support areas: technology development and commercialization, pioneer sales channels, education support, and financial support.

Shared Growth Support System

Goal	**Realize Win-Win Cooperation to Establish a Sustainable Management System**			
Strategic Direction	Strengthen SMEs Innovation Capacities	Establish System Growth Base	Create High-Quality Jobs	Support Response in the Post-COVID-19 Era
Major Tasks	• Expand MPE[1] localization • Enhance SMEs capacity	• Support productivity improvement • Support for customized SMEs	• Strengthen cooperation with local governments • Support for entry into new businesses	• Support sales channels for SMEs • Support for small business owners and vulnerable classes
Major Systems	**Support for Technological Development and Commercialization**		**Pioneer Sales Channels**	
	• Conditional purchase new product development project • Technology development for global small and medium-sized enterprises • Support for new technology certification acquisition • Support for intellectual property rights acquisition • Support quality certification and overseas specifications acquisition • Support for technological protection such as technical data deposits		• Support for participation in exhibits in Korea • Support for participation in overseas exhibits • Support for participation in market pioneer groups • Support for export consulting and vendor registration • SME product seminars and buyer consulting sessions • Utilization and promotion of newsletters and mass media	
	Support Education for Personnel		**Financial Support**	
	• Support for hiring personnel for SMEs • Support for free education on generators • Support for improving work capacities • Fostering maintenance personnel		• Shared growth cooperation loans • Support SMEs investment funds • Prepayment system after contracts	

1) Materials, parts, and equipment

Key Performances for Shared Growth

(Unit: companies, times, persons, KRW 100 million)

Category	2018	2019	2020
Education for SMEs	90	59	85
Support for improving productivity	31	49	55
On-site customized support	41	54	65
Support for Korean and overseas sales channels	22	29	36
Jobs created for SMEs	146	205	242
Amount supported for COVID-19 response	-	-	65.5

Shared growth evaluation by the Ministry of SMEs and Startups

Achieved Excellent rating

10 consecutive years

(the most among public institutions)

Shared Growth Programs

Support for Developing New Products with Conditional Purchase for SMEs

EWP strives to localize core parts of generator materials and improve technologies for SMEs in Korea to energize the generation industry. We operate conditional purchase new product development projects together with SMEs possessing promising technologies ranging from R&D discovery to R&D, test-bed[1)] installation, and sales channel support. In 2020, we successfully conducted 28 localization R&D projects and supported test-bed for 131 items.

1) Applying prototypes developed by SMEs to generators in operation to support proving its performance and reliability

Conditional Purchase New Product Development Project Process

Plan [Find projects]	• Pursue jointly with SMEs Find new R&D projects (7 cases)
Do [Pursue project]	• Education for strengthening R&D capacities of SMEs • Pursue R&D projects such as localization (28 cases success)
Check [Test-bed]	• SMEs generator equipment Test-bed support (131 items, 30 companies)
Act [Sales channel and purchase support]	• Technological development product purchase and sales channel support (KRW 4.53 billion in purchases, 20 cases)

Support for improving the productivity of SMEs

EWP supports the construction of smart plants, innovative partnerships, and industrial revolution movements to improve the productivity of SMEs. The smart plant construction support project helps partner companies implement the key Industry 4.0 technologies, such as IoT and big data, in their factories. The innovative partnership program supports smart solutions for cooperating companies while also providing integrated support for pioneering sales channels and acquiring overseas certifications. Furthermore, the industrial innovation movement improves processes through on-site diagnosis and supports automation equipment. As a result of support for productivity improvement in 2020, SMEs created a financial effect worth KRW 3.9 billion.

Productivity enhancement support effect

Financial effect KRW 3.9 billion

Korean and Overseas Sales Channel Support for SMEs

EWP actively utilizes Korean and overseas operated generators and networks to support cooperating SMEs with pioneering sales channels. Accordingly, we hold export meetings, exhibitions, and buyer meetings in Korea and abroad to promote the products of SMEs, aside from providing interpretation, export consulting, and meeting venues. In 2020, activities switched to contactless in response to the COVID-19 pandemic, and we held contactless overseas export meetings and online seminars for SMEs.

Pioneering Korean and overseas sales channels

Total of 36 times with 662 companies

Financial Support for SMEs

EWP operates financial support programs to support our partnering SMEs with fund procurement. Through the cooperative loan program, we offer loans to green new deal partner companies, companies affected by COVID-19, and companies that create jobs. Furthermore, we pay parts of the contract amount in advance through the prepay program, etc. to improve cash flows. Through such efforts, we provided a total of KRW 13 billion in 2020.

Financial support for partner companies

KRW 13 billion

Stakeholder Interview

JST&Lab President **Lee, Cheol-Woo**

1. Please introduce your company and what's your relationship with EWP?

Hello. I am the president of JST & Lab. Our company was founded in 2008, and over the past 10 years, we have been pursuing the localization of the hydraulic control sector and the development of control technologies focusing on power plants. We have been maintaining various cooperative relations with EWP starting with the development of a boiler system safety valve/hydraulic control valve through a private sector-government joint research project in 2011.

2. What kind of help did you receive while participating in EWP's conditional purchase new product development project?

EWP actively promotes not only the development of conditional purchase new product development but also participation in other projects for coexistence and mutual growth with SMEs. Conditional purchase new product development project joint growth program was very effective in securing reliability through demonstration and supporting the initial procurement of sales channels. In the case of development, malfunctions due to trials and errors cannot be ignored; because of this, it is not easy to apply on-site even after completing development. Even in such situations, however, we were able to find methods for minimizing the impact on equipment and maintaining stability through the cooperation between EWP's technical personnel and our technical personnel. And it is very helpful in expanding the sales channels of the company by proceeding with the purchase when a product based on reliability is secured. The development project that we are currently pursuing with EWP is improving the smart positioner installed on the control valve for liquids in the process valve and strengthening its functions, and it aims at improving the convenience of maintenance through positioner status checking and diagnostic functions by increasing equipment operation stability and wired and wireless communication.

3. What is the background to the importance of localization of major power generation facilities, which is ongoing with EWP?

Solutions and systems appropriate to the operational environment of domestic power generation can be provisioned when technologies are localized. Furthermore, processes can be quickly handled such as the procurement of components and repairs when compared to using foreign technologies. Hence, even when problems arise, quick component procurement and technical support becomes the foundation to stable supply of electric power. In addition, it is not an overstatement to say that power generation plants are composed of only foreign products. To acquire competitiveness when compared to foreign products, development of technologies appropriate to the local environment are needed.

4. Do you have any suggestions for the EWP purchase conditional new product development support project program?

I hope that there will be a document drafting coaching training for the successful progress and completion of tasks such as preparing a business plan so that SMEs can be well utilized and promoted.

Educational Programs for SMEs

EWP pursues independent education support projects to provide training for SMEs in need and operates power plant personnel fostering education in connection with expertise in the industry. The independent education support project is a program wherein EWP pays for 50% of the cost after completing the education desired by SMEs. Furthermore, we support free work-related education such as in power plant technology expert courses or power plant trends to pass on power plant operation technologies and knowhow.

Education for SMEs

85 companies

Support for Improving the Welfare of SMEs

EWP provides monetary support and improves labor conditions to improve the welfare of partnering SMEs. Financially, we offer scholarships for work-study employees to improve the work capacities of employees at partnering SMEs. We pursue work-from-home systems, establish resting areas, and support COVID-19 prevention systems to improve labor conditions. In 2020, we paid KRW 14 million in scholarships and built 10 resting areas as part of our multilateral efforts to improve the welfare of SMEs' workers.

"Dongseo Haetbit Dream Fund" to Expand Small-Scale Solar Power Investments

In order to support small solar power generation businesses, EWP established a KRW 500 billion of Dongseo Haetbit Dream Fund[1)] and signed an MOU for the investment. The Dongseo Haetbit Dream Fund represents "achieving the dreams of solar power businesses." We intend to use the funds to use 100% Korean-made materials such as modules, inverters, and transformers that are the main materials for solar power, while investing preferentially in solar power businesses engineered and constructed by SMEs.

1) Establish fund invested in by EWP at KRW 18 billion (90%) and Hyundai Energy Solutions at KRW 2 billion (10%), and receiving funds of KRW 500 billion from large insurance companies in Korea

Operation of SMEs Regulation and Complaint Handling Channel

EWP opened a companion center to unify communication channels and organized a professional organization cross-functional team (CFT). Through the CFT organization consisting of shared growth and contract experts, we are striving to resolve regulatory blind spots and difficulties for SMEs. Results of handling complaints and making improvements to systems are provided as newsletters. In particular, we officially declared the corporate petition protection service charter to stop disadvantages in bids and contracts because an SMEs filed a report on regulations and difficulties.

1) Specialized organization made up of hands-on staff supporting SMEs and helping with regulations and difficulties in generation, safety, renewables, contracts, etc.

Investment agreement of Dongseo Haetbit Dream Fund

Contactless communication at the East West Companion Center

CSR Management for Supply Chain

Sustainable Supply Chain

EWP uses the KEPCO electronic procurement system for biddings by suppliers. We transparently reveal contract regulations, contract handling standards, and contract status, etc. to guarantee free bidding by suppliers. We comprehensively consider technological capacities based on product purchase, management status, job creation, unfair contracts, and violations to the Employment Act are for the sustainable supply chain to evaluate the eligibility of suppliers. Furthermore, when entering contracts with partner companies, we include content on respecting human rights for responsible supply chain managements.

Partner Companies[1)]

(Unit: companies, KRW 100 million)

Category	Transaction type	Partner company	Scope of transaction
Large company (36.7%)	Purchase	17	217
	Construction	12	1,459
	Service	31	163
SMEs (63.3%)	Purchase	725	2,174
	Construction	263	693
	Service	225	299
Total		1,273	5,005

1) As of Jan – Dec 2020

Anti-Corruption of Partner Companies

In order to prevent corruption of partner companies, EWP announced its code of conduct and requires all partner companies to want to do business to sign a pledge for the code of conduct. The code of conduct includes the prohibition of receiving monetary gifts, fair trade, labor laws, and environment. When violating the code of conduct, restrictions such as limiting bidding eligibility or canceling contracts may be applied through the review of the contract review committee. Furthermore, we also support the acquisition of anti-corruption management systems (ISO 37001) so that partner companies may systematically manage corruption.

Contents of the Code of Conduct[1)]

Category	Contents
Article 4	Prohibition of providing money or entertainment
Article 7	Prohibition of violating fair trade
Article 8	Restriction of illegal actions using job-related information
Article 13	Prohibition of illegal labor
Article 14	Improving environmental protection and safety culture

1) Extracted from parts of the partner company code of conduct

Partner Company Environment and Information Security Risk Management

EWP manages risks to improve vulnerable areas of partner companies. We conduct environmental management mentorship programs to prevent violations of environmental regulations by partner companies, and we pursue energy partnership programs to improve environmental management capacities. Furthermore, we pursue information security technology support to advance the information security levels of partner companies. Through such efforts, we prevented 61 cases of violating environmental laws by partner companies in 2020, while also providing 9 security solutions to 30 companies.

Major Support Programs

Support system	Main contents
Environmental management mentorship	• Diagnosis of violations of environmental laws and regulations • Support for vulnerable facilities/protective equipment • Environmental management consulting, environmental laws and regulation consulting, etc.
Energy Companion Project	• Customized technology and energy management education support, etc. • Support for high-efficiency equipment such as solar power
Information security technology support	• Support for purchasing customized information security solutions, etc. • Inspection of areas with weak security and prevention of damage from ransomware

Introduction and Operation of the Fair Trade Autonomous CP

EWP has implemented the 'Fair Trade Autonomous CP' in June 2020 for strict compliance with laws and regulations related to fair trade and to prevent risks of violations. Starting with the CEO's forceful declaration on compliance with laws related to fair trade, the Social Values Promotion Division Managing Director was appointed as the autonomous compliance administrator. Furthermore, we provided a handbook on laws and cases related to fair trade to employees and conducted CP online training for 120 hands-on workers. We inspect important actions having the possibility of violating laws at all times through prior discussions with the Ethics & Compliance Department. We also operate inspection and reporting systems that can be reported anonymously when discovering violations.

Safety and Health

Safety and Health System

At EWP, the executive board conducts on-site safety management activities every month based on safety-first management. We maintain the ISO 45001 (safety health management system) certification to prevent—and make improvements to—safety and health risks that can occur at the workplace. We strengthened the safety-first management system by faithfully implementing both the government guidelines for workplace safety reinforcement and public institution safety management guidelines. In particular, we are integrating Industry 4.0 technologies, such as AI and VR, to advance its safety and health levels further to minimize the likelihood of accidents. As a result, we achieved Grade A for two straight years on the public institution safety activity levels in 2020.

Safety Management System

Goal	**Operation of Safe Power Plants that Protect the Lives and Safety of Workers**		
Strategies	Build of EWP Safety Culture	Preemptive Disaster Response	Improve the Safety Level of the Community
System	**Industrial Safety**	**Disaster Safety**	**The Public Safety**
	• Power plant safety management, risk assessment • Worker management, work authorization, etc. • Chemical substance, safety equipment management	• Business continuity management (BCM) • Automatic notification of disaster information • Crisis manual training, etc.	• Operation of volunteer firefighters and resource sharing • Status notification and disaster experience training • Air pollutant concentration disclosure

Workplace Safety Management Performance

Category		2018	2019	2020
Employees	Accident rate[1)]	0	0.04	0
	Death rate in industrial accidents per ten thousand employees [2)]	0	0	0

Category		2018	2019	2020
Partner companies	Accident rate	0.13	0.05	0.11
	Death rate in industrial accidents per ten thousand employees	0	0	0

1) Accident rate (%): [(no. of fatalities + no. of injuries)/no. of permanent workers]*100
2) Death rate in industrial accidents per ten thousand employees(‰): (no. of fatalities/no. of permanent workers)*10,000

Public institution safety activity level evaluation (Ministry of Employment and Labor, MOEL)

Grade A

Public institution safety rating system (Ministry of Strategy and Finance)

Grade 2

Safety and Health Organization

EWP oversees safety management work through the Safety & Health Division directly under the CEO to strengthen on-site safety management execution power. The Safety Quality Division was reorganized into the Safety & Health Division to construct an independent safety management organization, and it is enhancing the expertise of the control tower. Furthermore, we newly organized the Safety Inspection TF in response to the Severe Accident Punishment Act to strengthen our safety management.

Main Roles

Safety General Department	• Establishment and execution of management plans in the safety and health sectors (including education)
Safety & Health Cooperation Department	• In charge of companywide health management and work environment measurement • In charge of partner company safety and health management support
Disaster Management Department	• Establish and execute management plans in the disaster sector • Emergency response to natural disasters (earthquakes, typhoons, etc.) and social disasters (infectious diseases)
Safety Inspection TF	• Unscheduled inspections on safety management related to preventing safety accidents for employees and partner companies • Check the execution of safety accident recurrence prevention measures, inspect compliance with laws and regulations

Advancement of Safety and Health Management

Strengthening Our Safety Management

EWP is preemptively identifying safety risk factors to prevent safety accidents. We conduct customized inspections according to the months when safety accidents can occur such as during cold spells, heat waves. Furthermore, the safety inspection TF and experts in each field conduct special inspections quarterly and unscheduled dates (once a month) to identify potential risk factors and suggest alternatives. All issues and measures following safety inspections are recorded and shared to the workplaces and reflected in internal reviews to conduct continuous management.

Safety Accident Recurrence Prevention

EWP analyzes accidents that occurred in the past to establish recurrence prevention plans and shares them with all of its business sites. Moreover, we benchmark safety accidents of other companies to prevent safety-related accidents.

Safety Accident Recurrence Prevention Cases

Cases	Cause analysis	Establish recurrence prevention measures
Falling while transporting materials	• Inappropriate materials transportation method	• Operate risk factor finding TF • Reinforce safety aisles
Painting pre-treatment	• Signaling system confusion and inaccuracy	• Work method improvement
Electrocution accident	• Black-out not checked • Not wearing protective gear	• Installation of black-out monitoring equipment • Support for protective gear
Falling while transporting coal ash	• Safety supervisor not deployed	• Operation of safety supervisor etc.

Safety inspection at power plants by the EWP executive board

Strengthening the Effectiveness of Safety and Health Education – “VR Safety Experience Education”

EWP introduced VR education programs to strengthen the safety and health education of all business sites and partner companies. VR experiential safety education enables contactless education with no restrictions on place, while overcoming the limitations of education focused on theories. We aim at using this education so that trainees can experience the major risks of industrial accidents while raising safety awareness. In order to strengthen its contents, we are developing the programs with the cooperation of public institutes, and planning to expand the VR safety experience centers.

Prevention of Industrial Accidents for Partner Companies

In order to prevent safety accidents among workers of partner companies, EWP is providing support for customized safety level enhancement per partner by developing a qualitative evaluation index for the safety and health level diagnosis of partner companies. Moreover, we provide financial support for partner companies in acquiring safety and health management system certifications, resulting in all partner companies (ISO 45001) acquiring safety and health certifications. We also conduct safety education for everyone entering the site including workers and day laborers of partner companies.

Employee Health Improvement Program

EWP operates various health improvement programs together with partner companies. We are expanding and operating contactless exercise class support considering the pandemic situation, and we also offer meditation app tickets and consulting programs to help manage stress and have mental stability as the COVID-19 situation persists. Furthermore, we provide education on basic nutrition management methods for diseases such as obesity, diabetes, and high blood pressure through online video lectures involving nutrition and healthy cooking. We pursue to obtain outside certifications for an excellent health improvement workplace for all business sites based on the above program.

VR education at the Dangjin Safety Experience Center

Disaster Management

Disaster Management System and Certification

EWP has established a preemptive disaster safety management system for the stable supply of power to citizens. We conduct integrated monitoring on information related to fires, earthquakes, and hazardous material leaks through our smart disaster management system. Furthermore, we have maintained the business continuity management systems (ISO22301) to maintain our business continuity even in times of disasters. Thanks to such efforts, we were selected as an outstanding institute in disaster response by the MOTIE in 2020.

Integrated Disaster Prevention Center Operation and Training

EWP operates an integrated disaster prevention center to strengthen its disaster response ability. Fire response personnel are on standby 24 hours a day, and equipment such as fire trucks and bending ladder trucks are being supplemented. In addition, we conduct disaster training and disaster management education every year so that employees can respond calmly in case of accidents. In 2020, a total of 15 people completed disaster management training, and we held 42 disaster response training sessions. As a result of such efforts, there was not a single disaster safety accident thanks to prompt responses such as early extinguishing of fires at the coal transportation facility, early extinguishing of forest fires near the power plant, etc. in 2020.

No. of disaster safety accidents

0 cases

Smart integrated disaster management system

Hazardous Chemicals Management

Establishment of a "Chemical Hazard Evaluation System"

In the past, workers had to search government data and individual materials related to the material safety data sheet (MSDS) to get the latest information on chemicals. This made it difficult for workers to make decisions on the exposure level or hazards of chemicals. In order to help make judgments on the hazards of chemicals, EWP established a "chemical hazard evaluation system" in 2020. The system evaluates the dangers of chemicals from the purchasing stage and provides the latest integrated information related to chemicals. We built the system with the goal of minimizing the use of highly hazardous chemicals and preventing accidents by enhancing the understanding of hazardous chemicals among workers.

Zero Hazardous Chemical Use and Accidents

EWP seeks to build a safe workplace by minimizing the use of hazardous chemicals and achieving zero accidents. According to the National Institute of Chemical Safety, accidents caused by hazardous chemicals normally occur due to noncompliance with safety standards or facility defects. We newly installed hazardous chemicals storage facility discharge walls and reinforced the handing facilities in 2019 to prevent facility defects in advance. Moreover, we reduced the use of hazardous chemicals to prevent accidents fundamentally. Accordingly, we conduct reviews on replacing the handing facilities to convert hazardous chemicals into low concentrations while also conducting R&D to switch to alternative chemicals (general chemicals). Especially in the case of the Donghae Power Complex, we operate a zero hazardous chemical workplace by switching to low-concentration chemical usage.

Process safety management (PSM)[1] grading

Dangjin, Ulsan, Honam, Ilsan, Donghae Power Complexes

Grade S

1) System for the evaluation of the safety execution status by the MOEL to prevent large industrial accidents that can result in severe damages to the workplace and vicinity due to hazardous and dangerous substance leaks, fires, explosions, etc.

Information Security

Information Security System

As part of our efforts to prevent cyber security accidents related to power plant operations, we are building an information security system that is in accordance with ISO 27001 (information protection management system) and personal information protection management system integrated certification (ISMS-P) for all power plants. The Digital Security Department of the IT & Security Division oversees work related to information security such as information security policies/regulations/guidelines and work related to personal information protection. The department will increase investments in the information security sector such as AI-based integrated security monitoring systems in the future to improve and strengthen continuously the information security levels at the power plants.

Information Security Strategy

Goal	**1st Place in Public Institution from Government Evaluation & Zero Security Incidents & Enhancing Awareness of Information Security**	
Strategy	Enhance the Protection Level of Personal Information	Establish a Cyber-Violation Response System and Spread the Security Culture
Initiatives of Focus	• Continue optimization of the personal information management system • Establish a response system for personal information protection	• Construct the Industry 4.0 cyber-quarantine system • Pursue social value in information security • Convenient, safe information security environment • Strengthen the information security execution force

Optimization of the Personal Information Protection Management System

EWP implements the personal information handling policies it established pursuant to the Personal Information Protection Act and relevant laws, and we handle personal information according to such policies. We diagnose and improve personal information management levels through regular personal information protection inspection (on-site inspection, twice/year) and real-time inspection (checklist, twice/week). Thanks to such efforts, there was not a single case of personal information leak in 2020.

Violations of the Personal Information Protection Act

(Unit: cases)

Category	2018	2019	2020
No. of complaints related to the personal information of customers	0	0	0
No. of cases of customer information leak, theft, loss	0	0	0

Ministry of Interior and Safety's diagnosis on personal information protection management levels

Highest ranking (Good)

for 5 consecutive years

Information Security Response Training

EWP conducts information security response training in preparation for real situations such as cyber-attacks and hacking. We send hacking e-mails to all employees unexpectedly (4 times/year) to train and prepare them for actual situations and make efforts to strengthen information security execution capabilities, such as infiltrating the computer network of information security officers (3 times/year). Furthermore, we conduct company-wide information security management status is inspection once a year.

National Intelligence Service information security status evaluation

No. 1 among public institutions (90 points)

Human Rights Management

Human Rights Management System

EWP upholds the human rights of all stakeholders including employees, partner companies, and the community throughout its entire business process. Accordingly, we advocate the international standards and norms for human rights such as the UN World Human Rights Declaration and hold annual human rights impact assessments to identify possible infringements of human rights, while managing and improving human rights management levels based on independent human rights management indicators.

Human Rights Management System

Vision	A Leading Company in Human Rights Management Respecting for Workers with Related Companies and Local Communities	
Purpose	As a Separate Company	As a Public Enterprise
	Respect and protect the human rights of stakeholders and fulfill corporate social responsibilities	Act as a bridge between the country's duty to protect human rights and the responsibility for respecting the rights of private companies
Norms	Human Rights Management Charter[1)]	Execution Guidelines
	• Joint declaration by executive board and labor union for 10 items	• Human rights management policies, systems, and methods • Human rights violation relief procedures and organizations
Execution Tools	Divide into institution operation and major projects to perform human rights impact evaluations (annual)	
	Department: Ethics & Compliance Department	Decision-Making Supervision Organization: Human Rights Management Committee
		Human Rights Violation Relief Organization: Human Rights Violation Relief Working Committee

1) Enact according to the recommendations of the National Human Rights Commission

Advancement of Our Human Rights Management

EWP is operating the independent EHRI (EWP Human Rights Index) we developed to manage and improve the human rights management system continuously. In order to secure the objective feasibility of the EHRI, we reflected advice from human rights experts, "public agency human rights management manual" for public agencies by the National Human Rights Commission, overseas indices, etc. We used a total of 40 indices in 4 stages such as Plan, Do, Check, and Action through the EHRI to inspect the human rights management level. As a result of measuring the human rights management level, we obtained a "Very Good" rating; based on this, we plan to manage and improve human rights management levels.

Human rights management evaluation results

Good

Major Improvement Projects According to the EHRI

Diagnosis perspective	Index contents	Improvement projects and execution plans	Results
Plan	Appropriateness of composition of the Human Rights Management Committee	• Increase the number of outside members as majority	Completed (Jul. 2020)
	Appropriateness of planning and strategy	• Establish mid- to long-term road map for human rights management	Completed (Feb. 2021)
	Appropriateness of relief procedure	• If desired by human rights victims, support application for relief by the National Human Rights Commission	Completed (Apr. 2021)
	Effectiveness of relief procedures	• Establish detailed standards for relief procedures for human rights violations	Completed (Apr. 2021)
Do	Appropriateness of index	• Added human rights violation issue index for workers	Completed (Dec. 2020)
	Human rights education performance	• Education for all employees and the people in charge	Completed (Oct. 2020)
Check	Method calculation index "compared to goal method"	• Continuously establish goals by department in charge • Performance management through official external reports	Continuous management
Action	Disclosure of human rights management	• Disclose information on human rights in the EWP website	Completed (Jan. 2021)

Acquired the Excellent Human Rights Management Company Certification

EWP was certified as an excellent human rights management company by the Korean Standards Association. The excellent human rights management company certification is bestowed following reviews on activities such as operation status of the human rights management system such as internal human rights management system and education related to human rights. Stating the duty of respecting human rights in contracts with partner companies to spread human rights management was a driving force for receiving high scores in the certification evaluation.

Human Rights Impact Evaluation

EWP conducts human rights impact evaluations to self-inspect the possibility of human rights violations and continuously makes improvements in this area. The human rights impact evaluation is divided into the overall company operation and major businesses to check for potential violations of human rights for stakeholders due to company activities. We have established a "human rights impact assessment procedure" that meets the characteristics of the company to check the possibility and improvement process of human rights violations according to the procedure.

Hosting of the Business and Human Rights Ulsan Conference

EWP holds the annual "Business and Human Rights Ulsan Conference" to spread human rights management among partner companies and in the community. National Human Rights Commission representatives, labor policy staff, corporate workers, etc. hold presentations and debates at the conference to inspect the human rights management status in the Korean industry and projects and discuss ways to improve human rights. About 1,000 people from civic organizations and communities in Ulsan as well as partner companies participated in the conference, and the value of human rights is being shared with stakeholders.

Excellent human rights management company certification ceremony

Human Rights Education

EWP operates various human rights education programs to prevent human rights violations, such as workplace bullying, sexual harassment, and sexual assault. We support human rights education in various fields intending to prevent the violation of human rights.

Educational Programs

Category	Educational contents
Executive board and manager education	Workplace bullying and sexual harassment prevention education, etc.
Online education	4 major types of violence[1)], workplace bullying, child abuse prevention education
New employee education	Use of materials from the Institute for Gender Equality Promotion and Education
Non-permanent employee education	Use of materials from the Institute for Gender Equality Promotion and Education
Gender equality meetings	Use of educational materials from the Ministry of Gender Equality and Family
Respectful workplace meeting	Education on preventing workplace bullying

1) Sexual harassment, sexual assault, prostitution, domestic abuse

Operation of a Human Rights Consulting Counter

EWP supports the resolution of human rights issues through a complaint consulting counter regarding harassment at the office, sexual harassment, and sexual assault. If the victim asks for investigations, we hold a fact-finding mission and take relief measures at the corresponding department depending on the results; if necessary, we determine relief measures through a complaint review committee judgment with the participation of an external personnel.

Human Rights Consulting Counter

(Unit: persons)

Category		No. of persons	Eligibility
Outside consultant		1 Outside expert	Certified labor attorney
In-company consultant	Workplace bullying	12 1 person from labor and management at each business site and headquarters	Complete specialized training every year
	Sexual harassment at the workplace	12 1 male and 1 female at each business site and headquarters	Complete specialized training every year

Fostering Human Resources

Human Resource Fostering System

EWP constructed virtual class environments through digital shifts of the education program in response to the prolonged COVID-19 situation, and it is advancing the e-learning system. Furthermore, we are striving to foster convergent human resources with various educational programs such as fostering New Deal experts while responding to the accelerating Industry 4.0.

Human Resource Fostering Strategy System

Desired Talent	**Creative Convergent Human Resources who Will Lead the Eco-Friendly Energy Market**			
Strategic Direction	Raising Core Capacities	Strengthening Fundamental Capacities	Adding Selective Capacities	Expanding Capacity Systems
Initiatives of Focus	**Promoting Informal Learning**	**Fostering Digital and Green Human Resources**	**Strengthening Leadership Capacities**	**Constructing an On-Tact Platform**
	• Constructing a virtual class environment • Implementing a learning solution	• Internalizing digital capacities • Construction of new deal human resource fostering system	• Supporting the growth of women leaders • Expanding the capacity evaluation of management-level employees	• e-Learning system remodeling • Equipping with high-quality contents

Fostering Digital Talents

EWP is strengthening the digital capacities of its employees in response to the accelerating Industry 4.0. We operate educational programs for different levels starting with basic and beginner data education on learning how to use big data analysis tools and establishing a digital mindset to intermediate and advanced data education on actually performing data analysis. Furthermore, we support our employees in finding in-company big data analysis projects through the "In-company big data incubation project" and to develop solutions. In 2020, 132 employees completed the beginner and intermediate/advanced digital education and also developed 15 big data analysis solutions such as development of environmental risk prediction indicators.

Retiree Duty Conversion Education

EWP provides startup education and employment support programs starting from career planning so that employees preparing for retirement (persons subject to salary peak[1]) can be employed at another company after retirement or they can plan their future life.

1) System that begins to cut the salary of workers at a certain age (58 years), guaranteeing employment until the retirement age instead

Customized Education by Position and Life Cycle – "Fostering Female Leaders"

EWP operates educational programs customized to the positions and life cycles of women to respect gender diversity and fosters female leaders. We support competency building program per stage from the work assignment stage to childbirth and parenting, return to the profession, and promotion stages. We also strive to have women assigned to major positions. As a result of such efforts, one female was given a one-rank promotion for the first time in 2020, and there were ten female managers in the first to third ranks.

New Deal Human Resource Fostering System

EWP is expanding external consigned education in linkage with graduate schools as well as mandatory education to pursue the New Deal project. New Deal experts are selected and supported to complete 24 hours or more of mandatory job-related education. Moreover, we expanded external consignment education programs that support the earning of master's degrees in connection with graduate schools to add education courses such as renewable technology management and technology energy convergence departments. Through this, we aim at fostering New Deal human resources through specialized education courses befitting the New Deal project such as in renewable energy.

Fair Personnel System

Operation of a Fair Hiring System

EWP acquired the "Proper Hiring Management System Certification" to secure fairness in its hiring system. The Proper Hiring Management System certification program is a third-party certification system proving that a systematic program for fair and suitable hiring is established and operated transparently by a company. Furthermore, the "hiring monitoring system" is joined by an external expert observer who participates in the entire interviewing process to enhance transparency in hiring.

No. of hiring controversies

0 cases

Social Equality Position Employment Goal System

EWP operates a social equality employment system to ensure equal employment opportunities. Additional points are given for hiring high school graduates, local human resources, gender equality, etc., or we pursue hiring employees at a certain ratio. The social equality position system was expanded in 2020 to give 3-5% more points when hiring North Korean defectors and persons injured due to righteous causes.

2020 Social equality position[1] employment

67 persons

1) Talents of non-metropolitan area, Talents of relocated area, Men of national merit, High school graduates, Disabled

Blind Recruiting Process Focusing on Capacities

EWP conducts blind recruiting based on National Competency Standards (NCS)[1] capacities to secure future talents. The blind recruiting process is a method of recruiting candidates focusing on work capacities suitable for the company and social value competencies by not including personal information to prevent discrimination, such as specifications, education, gender, or appearance, when applying for jobs.

1) Knowledge, skills, aptitudes, etc. needed to perform on-site work being standardized by the nation per industry and level

Fair Performance Assessment and Compensation

EWP is striving to provide appropriate compensation by performing fair performance assessments. We perform organizational evaluations and personal evaluations according to the key performance indicators (KPIs) for comprehensive performance evaluation. In particular, the person being evaluated can participate in the evaluation process through the management by objective (MBO)[1] method to exchange feedback with senior employees. They can raise objections to the performance evaluation results, in which case re-evaluations are performed. We provide appropriate compensation such as promotions and bonuses according to the evaluation results in order to motivate employees. In addition, employees who received low scores in the performance evaluations are offered the "Performance Slump Overcoming Program" to help with self-development and education/coaching so that they may raise their performance level.

1) Realistic goals are set, and work is performed in this program so that the boss and the employee can evaluate and exchange feedback on performance together.

Job Creation

Job Creation System

EWP is striving to create sustainable high-quality jobs in connection with its industry. We create jobs based on the four strategic directions of focusing on main duty, consideration and respect, tolerance and development, and innovation and openness. In 2020, we created 44% more than our targeted 1,760 jobs, creating a total of 2,538 jobs directly and indirectly.

Job creation system

Goal	Creation of 53,000 High-Quality Jobs Focusing on Main Duties and Acutally Felt by Citizens			
Strategic Task	Focus on Main Duty	Consideration and Respect	Tolerance and Development	Innovation and Openness
Execution Tasks	• Establish a sustainable job creation system • Continuously create jobs by developing new businesses	• Achieve the goal of permanent position conversion in the public sector • Create equal-opportunity workplaces that respect human rights and improve the working conditions	• Create customized jobs by life cycle • Create equal-opportunity workplaces such as Energy Plus City	• Promote open in-company ventures • Support job growth together with cooperating SMEs

Job Creation Performance

(Unit: persons)

Category	2018	2019	2020	2021 goal	2022~2026
Public sector[1)]	556	110	55	76	387
Private sector[2)]	822	2,082	2,483	2,969	25,844
Total	1,378	2,192	2,538	3,045	26,231

1) Jobs in the public sector: Jobs created by hiring or through changing a temporary position to a permanent position
2) Jobs in the private sector: Direct private sector jobs + Indirect private sector jobs (investment cost X job creation coefficient X rate of permanent employees)

Job Creation Activities

Creating Jobs Focusing on Main Duties

EWP is creating new job openings through the development of new businesses despite the dropping quota with the closing of the Honam Power Complex. We hire human resources by creating essential on-site jobs to pursue new deal projects. We identify duties suitable for overcoming the COVID-19 pandemic, hiring safety and health administrators while expanding new jobs. Thanks to such efforts, we hired a total of 55 employees.

New hires

55 persons

Permanent employee conversion rate

100%

Permanent Position Conversion of Temporary Position

EWP established the subsidiary EWP Service Co., Ltd. in 2019 to turn all 427 non-permanent, dispatched, service-contract, and periodic workers into permanent employees. In particular, we are trying to harmonize workers who have been converted to permanant workers with existing workers. Accordingly, we signed a human rights agreement so that workers who became permanent workers in 2020 can work without being discriminated against. We also operate Sinmungo to receive reports on human rights violations. Furthermore, we operate organization convergence programs such as the One Heart Sports Day wherein executives and laborers participate together, thereby helping improve the labor environment and welfare. In 2020, we hired 52 employees with the improvement of working environments such as administrative staff for the subsidiary EWP Service Co., Ltd.

Create Customized Jobs by Life Cycle

EWP is operating a life-cycle employee support program to help overcome the limitations of uniform jobs and to create high-quality customized jobs. We carry out the “High School Open School,” which provides education on energy unique to EWP for high school students, to support employment. The High School Open School provides programs including classes on power plants, field trips, mentoring, etc. for students at energy specialized high schools. In 2020, we made the program contactless to continue creating jobs through employment support in the midst of the COVID-19 pandemic. Furthermore, we are fostering energy commentators to create jobs tailored to senior citizens. Energy commentators provide information and guidance on energy facilities to citizens visiting the power plant and renewable energy facilities operated by EWP. Moreover, we support programs customized to various life cycles such as youths, seniors, women taking a break from their career, etc. to create new jobs. Thanks to such efforts, we created 625 jobs through life-cycle employment and job support in 2020.

Life-Cycle Employment and Job Support Program

High school students	Contactless job training program
Youths	Digital job support
Mid-age	Encourage re-employment through psychological treatment and life planning
Seniors	Create specialized jobs such as energy commentators
Women on career break	AI software capacity training
SMEs	Scholarship support for the workers with studies

Job Protection in Mining Areas

As the Donghae Power Complex is the only anthracite power plant in Korea, EWP purchases 400,000 tons of anthracite in order to protect the miners in Samcheok, Gangwon-do, the area in danger of being abandoned. Through this, 623 miners in Samcheok get to keep their jobs, and we are making contributions to promote the local economy. In particular, efforts are being made to offset the costs for the mandatory purchase of anthracite by improving power trade systems, reducing the purchase costs of imported coal, etc.

Job protection in mining areas

623 persons

EWP’s New Deal Job Creation

EWP aims at creating about 38,000 jobs by investing KRW 7,046.1 billion by 2025 in the green, digital, safety/environment, and social value sectors to respond to the Korean New Deal policy and contribute to energizing the economy. In the case of the Green New Deal, we solidify the energy industry ecosystem by using 100% Korean-made solar power equipment and by localizing the core parts for wind power, thus contributing indirectly to the creation of new jobs. Furthermore, we discover new business models such as citizen participation in VPPs and energy pension-type wind power projects to create jobs directly in the private sector.

Promoting In-Company Ventures

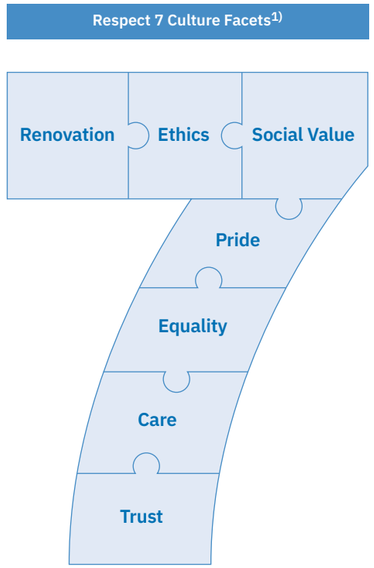
EWP is striving to create sustainable high-quality jobs by promoting in-company ventures. In 2018, we conducted a startup support system (allowing employees to start separate businesses, internal and external expert mentoring, provision of infrastructure, etc.) to support a total of four in-company ventures. Among them, “E-Cups” uses coffee byproducts discarded after making coffee from beans to develop Korean-made biomass fuels. We create jobs for the collection and transportation of coffee byproducts, etc. for the socially disadvantaged. Thanks to such efforts, E-Cups received the “in-company merit Minister of SMEs and Startups Award” in 2020. In addition to creating jobs and supporting startups through the activation of in-company startups, EWP was honored with the “Grand Prize in 2020 Job Committee Award” in 2020 from the Presidential Committee on Jobs, being recognized for our efforts to provide customized jobs for the marginalized class to overcome COVID-19 while constructing a sustainable strategy system to create high quality jobs.

Grand Prize, 2020 Job Committee Award

Happy Workplace

Respect 7 Culture Facets

Based on the “Respect 7 Culture Facets” system, EWP is pursuing the 18 major tasks, including smart work innovation and proper etiquette at work continuously to establish a communicating culture of mutual respect, trust, and cooperation.



1) EWP’s unique corporate culture pursuance system

E·GWP corporate culture index(in 2020)

85.6 (83.7 in 2019)

Multidirectional Communication System by Function

EWP is constructing a multidirectional communication system by function in order to reduce the generational differences such as with millennials and female workers. The CEO and executives listen to the opinions of employees through meetings while sharing the flexible corporate culture. Furthermore, we operate communication and discussion channels by function such as “Innovation Agora” wherein anyone can suggest innovative ideas, “Dudeurim Evaluators” as a pre-communication organization composed of minority labor unions and women, etc. In particular, we strengthen online communication channels in response to COVID-19, which has persisted since 2020.

Communication System by Function

Communication by function	Key issues	Periodic	Regular	Online
Led by the head of organization (Top-down communication)	Present directions Lead innovation	Letter, video message pop-up, etc.	•Transparent broadcasts, lunch box meetings, etc.	•Sympathy debate, vision quiz show •Online company parties, etc.
Labor-management communication (Open communication)	Trust building Transparent management	Labor-management association, pro-gram for laborers to observe board meetings, etc.	•Labor-management joint declaration •Dudeurim Evaluators, etc.	•Zoom meetings •Youth reporter meetings, etc.
Communication between employees (Bottom-up communication)	Listen to opinions Spread sympathy	Touring Happy Management Service, etc.	•Gender equality, respectful workplace meeting	•Sympathy debate •Innovation Agora
Social value (Customized communication)	Mutual development Respect for labor	• ONE-EWP Coexistence Association, etc.	•Social value portal, etc.	•Transparent Talk Talk, Transparency Relay, etc.

HIGHLIGHT

CEO Online Sympathy Debate

EWP operates the “CEO Online Live Sympathy Debate,” creating a place for real-time two-directional communication between employees and the CEO to spread the corporate culture. “CEO Online Live Sympathy Debate” is a space for online debates for all employees, and any employee can participate anonymously to state his/her opinions freely and frankly. Debates held in 2020 continued for six weeks focusing on ①work sharing between departments, ②improvements to inefficient processes, and ③work satisfaction levels needed to improve the corporate culture index, aiming at coming up with actual improvement projects. As a result, we established plans for improving the corporate culture, and they are being pursued with examples such as constructing a system that can promptly solve issues when work in blind spots occurred, promoting inter-departmental communications, and waging the bring-down-the-wall campaign between departments.

Welfare and Benefits

Welfare and Benefits System

EWP strives to operate a highly effective welfare and benefits system that meets the needs of its employees. We conduct surveys to investigate the level of satisfaction with the welfare and benefits system, aiming at supporting customized welfare systems according to the internal and external environments. In 2020, a survey was conducted focusing on the COVID-19 response and family-friendly welfare programs.

Welfare and Benefits System

Vision	National Sympathy, Happy Employees, and Happy EWP		
Direction	Strengthen the Non-Monetary Welfare System	Customized Welfare System by Age and Target	Stable In-Company Fund Operation
Strategic task	• Operation of COVID-19 response welfare • Improvements to the residential environment	• Expanded operation of year-round employee lounges • Promotion of family-friendly programs	• Securing the continuity of in-company funds • Joint operation of subsidiary in-company funds

Operation of Customized Welfare Program for Employees

EWP operates different welfare programs for different age groups with the goal of improving employee satisfaction. We offer various customized welfare programs such as providing housing and home-purchase funds due to the relocation of the public institutions, operation of a child care center, operation of vacation resorts as benefits for the entire family, etc. Upon examining the opinions provided in the welfare satisfaction survey in 2020, there was an increase in demand for benefits for the entire family. Thus, we expanded the vacation resorts to be available all year-round. Moreover, we improved and diversified work-from-home systems and flexible work programs considering the COVID-19 situation to increase employee satisfaction with welfare according to employee needs and internal and external circumstances.

Work-life balance (WLB) index (in 2020)

85 (82.5 in 2019)

Welfare satisfaction (in 2020)

87 (84 in 2019)

Improving Employee Satisfaction with Contactless Sports Day

EWP took action to enhance the satisfaction of employees by holding a contactless sports day wherein all employees can communicate and interact even during the COVID-19 pandemic. The contactless sports day is composed of games such as mobile game contests, walking, and cycling. It allowed individuals to use the application at separate places to participate freely. As a result, the event received the highest score in employee satisfaction among all previous sports events. Winners of the online events were given Onnuri gift certificates to offer incentives to employees while also promoting the local economy.

Operation of Welfare Programs Customized to COVID-19

EWP supports welfare programs customized to the COVID-19 situation as the pandemic persists.

Contactless Revitalizing Program

Support for physical activities, hobbies, and leisure	
Welfare system	• Psychological consulting and stress management programs • Support for running and cycling • Happy Family photo contest (house party, camping, etc.) • Raising companion plants in the office • Reading support • Activities linked to volunteering
Anticipated effects	Establish a system for alleviating the coronavirus blues1) in connection with psychological therapy

1) Referring to “COVID-19” and “blues (depression)”, or being blue due to the huge changes in everyday life caused by self-quarantines and social distancing

2020 labor-management contactless sports tournament

Promotion of the Use of Annual Leave and Parental Leave

EWP aims at establishing a work environment wherein employees can balance work and family to offer sufficient rest, thereby improving work efficiency. The mandatory annual leave was extended from 15 to 17 days, we put a system in place wherein employees schedule their vacation plans in advance so that they do not interfere with work. Moreover, in order to promote the parental leave system, we give work evaluation grade for those returning from parental leave at a level higher than the previous one so that they are not placed at a disadvantage when returning to work. At the same time, we provide support so that they may adapt to work. Efforts are also being made to enhance the effectiveness of the parental leave system by making it mandatory to reduce the work hours during pregnancy and encouraging men to take parental leave as well. As a result of such efforts, we have maintained for 11 straight years the "Family-friendly Company Certification," which is obtained by the Ministry of Gender Equality and Family on companies that operate exemplary family-friendly programs.

Overtime and No. of Holidays Used

(Unit: hours, days)

Category	2018	2019	2020
Overtime per employee	25.7	23.5	14.4
No. of holidays used	21.6	21.9	20.9

Work evaluation benefits from parental leave
14 persons

Parental leave by men
(14cases in 2019)
24 persons

Family-friendly company certification

Certified for 11 consecutive years

Pursuing Happy Value Together – a Welfare System for Subsidiaries and Partner Companies

EWP supports the welfare of subsidiaries and partner companies to raise the satisfaction of subsidiaries' and partner companies' employees. We provide in-company labor welfare funds (KRW 910 million) as direct support, and we offer non-monetary support, such as psychological counseling programs and remodeling of lounges, to create value wherein everyone is happy.

Psychological counseling support
479 persons

Support for office and lounge space remodeling
5 sites, KRW 200 million

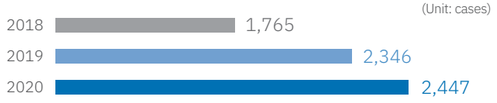
Increase Flexibility in Working Hours

EWP aims at improving the satisfaction of employees by balancing work and life. We operated the PC-OFF system wherein the PCs are turned off automatically after 6 p.m. in keeping with the 52-hour workweek. Furthermore, flexible work hours and work hour selection systems, etc. wherein employees can adjust their work hours as they wish within the range of 80 hours every 2 weeks are being operated to create an autonomous working environment. In particular, we put in place work efficiency improvement plans called Work Diet[1)] and High-Five Campaign[2)] to resolve issues such as work vacancies and reduced efficiency resulting from the flexible work schedule to enhance work efficiency, with the necessary institutional supplementation in accordance with the shortened work hours organized.

1) Activities to eliminate, simplify, or improve inefficient work by finding unnecessary duties through a bottom-up communication method wherein all employees can freely voice their opinions
2) Campaign to improve the corporate culture by having all members of the organization take part in innovation activities

Flexible Work System

(Unit: cases)



Discovered Work Diets

51 cases

Social Value

Social Value Platform

Social value refers to public values such as safety, environment, jobs, social contribution, shared growth, etc. EWP went beyond measuring performance focusing on finances as in the past to set 12 non-financial performance indices to measure it in currency value. We review the measured social values for use in decision-making in businesses, at the same time creating shared values and sustainable values.

Social Value Platform

Goal	**Created KRW 2,544.9 Billion in Social Value (2019 – 2022)**
Brand Identity	A Vibrant Energy Power Plant
Directions for Social Values	Create an economic 'symbiotic' ecosystem / Lead 'cooperation' in solving social issues / Strengthen 'sympathy' and emotional exchanges
4 Major Sectors	Advancement of power generation / New growth engine / Job creation and revitalization of the local economy / Internal capacities

Social Value Measurement Performance

(Unit: KRW 100 million)

4 major sectors	Social value goals	Social value performance index	Monetary value 2018	2019	2020
Advancement of power generation	Contribute to power stability	Forced outage rate	796	535	487
	Reduce generator facility energy	Main fuel usage	147	209	193
	Reduce environmental restoration cost	Reduction of pollutants	512	1,293	1,295
New growth engine	Prevent reduction of public interests	Facility capacity for distributed resources	681	763	1,023
	Renewable energy production	Generation volume of new and renewable energy	659	732	981
	Secure overseas emissions rights	Amount of overseas carbon emission rights secured	0	0	13
Job creation and revitalization of the local economy	Contribute to national income	Create direct jobs	261	651	1,134
	Strengthen value chain competitiveness	Investment for shared growth	95	78	118
	Local Economy Revitalization	Investment for social contribution	458	819	934
Internal capacities	Contribute to the economy by investing in Industry 4.0 technologies	Business achievements of the Industry 4.0 technologies	35	153	258
	Minimize operational losses caused by corruption	No. of corruption cases	0[1)]	0	0
	Minimize fatalities by accidents	No. of fatalities by accidents	0[2)]	0	0
Total			3,644	5,233	6,436
			Accumulated KRW 1,531.3 billion		

1) Represents social costs (minus) due to corruption of internal employees; the social value creation performance goal is KRW 0
2) Represents social costs (minus) due to deaths by accidents at the workplace; the social value creation performance goal is KRW 0

Governance | Establish a Transparent Management System Focusing on Communication |

STRATEGY

Goals	Key KPIs	2021 → 2025	2020 Performance
Strengthen the Role of the BOD to Secure Governance Transparency	ESG Committee meetings	2 → 4	ESG Committee (June 2021) **Launched**
	Ratio of female executives	22% → 33%	Public Institution Management Performance Evaluation **Excellent (A)**
	ESG issue discussions	4 → 6	
Advance Ethical Compliance Management & Anti-Corruption Systems	ACRC integrity evaluation	Grade 2 → Grade 1	Anti-Corruption Policy Evaluation by ACRC **Very Good (Grades 1 and 2) for 9 consecutive years**
Promote Communication by Building a Resident Participation Platform	No. of operations of participatory platforms[1]	7 → 7	Citizen Participation (4,277 → 4,671 persons) **9% increased** Media Reports (5,080 → 5,914 cases) **16% increased**
Enhance Business Transparency by Expanding ESG Disclosures	MOEF evaluation of information disclosure	0 point → 0 point	Government Information Disclosure Evaluation **Excellent for 3 consecutive years**
	CDP performance	Grade B → Grade A	CDP Korea **Carbon Management Special Award**

1) Social Value Committee, Social Contribution Committee, Public Participatory Innovation Group, Active Administrative Committee

UN SDGs Target

10.2 Empower and promote the social, economic and political inclusion of all

16.5 Substantially reduce corruption and bribery in all their forms

17.14 Enhance policy coherence for sustainable development

Governance

EWP seeks to increase transparency in its governance structure and strengthen its independence. To that end, we strive to boost non-executive directors' monitoring/advice functions and diversify the BOD composition.

Composition and Roles of the BOD

As the company's highest decision-making body, EWP's BOD consists of four internal directors including the President & CEO and five external directors. In order to secure the independence of the board, the chairperson shall be a senior non-executive director in accordance with Article 21 of the Act on the Management of Public Institutions. The number of executive directors is less than one-half of the total number of directors including the President & CEO. The committees within the BOD, including the Audit Committee and the ESG Committee, play the roles of both auditors and advisors to help the board make efficient and rational decisions in the fields they specialized in respectively.

Director Appointment Process and Term

EWP appoints its directors pursuant to the Act on the Management of Public Institutions and the "Articles of Korea East-West Power." The Executive Nomination Committee recommends directors with expertise by evaluating their qualifications and abilities as well as their knowledge and experience in the electric power industry. The president of the company is recommended by the executive recommendation committee in plural and appointed by the president at the recommendation of the Minister of Trade, Industry and Energy after a resolution by the Public Institution Steering Committee and the general shareholders' meeting. Executive directors, excluding the president, are nominated by the president of the company after the resolution of a general shareholders' meeting. Executive auditor is recommended by the executive recommendation committee in plural, and is appointed by the president at the recommendation of the Minister of Economy and Finance after a resolution by the Public Institution Operation Committee, election at the general shareholders' meeting. Non-executive directors are appointed by the Minister of Economy and Finance following deliberation and resolution by the Public Institution Operation Committee and the general shareholders' meeting. The terms of office of the president of the company and directors are 3 years and 2 years, respectively: The executives can be reappointed on an annual basis.

Composition of the BOD

Name	Gender	Position		Background	Term
Kim, Young-Moon	M	Executive director	President & CEO	Former Commissioner of the Korea Customs Service	Apr. 26, 2021- Apr. 25, 2024
Kim, Sang-Cheol	M		Executive auditor	Former Policy Assistant to the Minister of Trade, Industry and Energy	Sep. 14, 2021- Sep. 13, 2023
Lee, Seung-Hyeon	M		Executive Vice President of Safety & Engineering Group	Former Senior Managing Director of Planning Group, EWP	Jun. 10, 2020 - Jun. 09, 2022
Cho, Sang-Gi	M		Executive Vice President of Business Development Group	Former Head of the Power Generation Technology Development Institute, EWP	Jun. 10, 2020 - Jun. 09, 2022
Kim, Hong-Cheol	M	Non-executive director (BOD chairperson)		Managing Partner, Law Firm Taxro Former Managing Partner, Law Firm Hosan	Nov. 14, 2018 - Nov. 13, 2021
Bae, Young-Il	M	Non-executive director		Former Executive Director, Business Office, GS E&R	Sep. 10, 2019 - Sep. 09, 2021
Choi, Gyu-Sang	M	Non-executive director		Executive Director, BS Co., Ltd. Former President, Chungju Office, KEPCO	Jun. 11, 2020 - Jun. 10, 2022
Ahn, Suk-Chan	F	Non-executive director		Prof. Dept. of Accounting, Duksung Women's University Former Researcher at the Korea Accounting Standards Board	Feb. 10, 2021 - Feb. 09, 2023
Park, Seong-Jin	M	Non-executive director		Former Operating Committee Chair of the Ulsan Namgu Council	Apr. 23, 2021 - Apr. 22, 2023

Committees of the Board

Committee	Composition	Chair	Members	Objective
Audit Committee	Executive auditor, Non-executive director	Bae, Yeong-Il	Kim Sang-Cheol, Bae Yeong-Il, Kim Hong-Cheol	Audit of duties/accounting Report of results to the board
ESG Committee	Non-executive director	Choi, Gyu-Sang	Choi Gyu-Sang, Ahn Suk-Chan, Park Seong-Jin	Utilization of non-executive directors' expertise Provision of management suggestions (about ESG management)

Board Transparency

Participatory BOD: "Board Meeting with a Theme"

EWP operates a "Board Meeting with a Theme" in a bid to realize an open BOD and enhance its corporate management transparency. Under the principle, we have developed into our BOD meeting where heads of related departments attend and discuss together beyond agenda-oriented resolutions. In 2020, in a bid to advance our management transparency one step further, we expanded the "Board Meeting with a Theme" to include preliminary discussions by rank in all departments companywide. As a result, all our employees participated in discussions on strategies for "conversion into digitact work amid the COVID-19 pandemic" and "building a H_2 industry-triangle" as the company enhanced and promoted management innovation through the board.

Introduction of the Employee BOD Observation System

Considering the labor union as a highly respected management partner, EWP operates an employee BOD observation system. Through the system, the representative of employees participates in BOD meetings to share the company's management status in real time and express his/her opinions as an observer. The union chair, who attended the December 2020 board meeting as a worker observer, requested an increase in the safety budget for employees, including partner companies. After reviewing the proposal, EWP allocated KRW 10.4 billion to the Safety Experience Center at its power plants and implemented a program to improve the safety and health management level of partner companies.

The EWP board meeting held in November 2020

Expansion of Female Executives' Participation in Management

EWP has established a basis for appointing talented female executives and diversified public relations to realize gender equality in the composition of executives. We have revised the regulations of the Executive Nomination Committee to introduce a provision for strengthening gender equality and increased the proportion of female members of the committee to 28%, which is higher than the legal standard of 20%. In announcing the public recruitment of executives, we expanded the media to include the website of the Ministry of Gender Equality and Family in addition to the websites of the company and related departments, we have also attempted to secure a pool of female talents for the board by using the Ministry of Gender Equality and Family's female talent DB. As a result, all female applicants were recommended as final candidates by the Public Institution Operation Committee.

Status of Female Executives

Description	2020	2025 (goal)
Female executives/total	1/9	3/9
Ratio of female executives	11%	33%

Board Evaluation and Compensation

EWP is evaluated on its management performance by the Ministry of Economy and Finance. We pay performance bonuses to registered directors (excluding external directors and members of the Audit Committee) and auditors. The remuneration for directors and auditors is paid within the amounts approved at a general meeting of shareholders in accordance with the standards set by the BOD considering their respective positions and duties. We transparently disclose the details of our remuneration system and evaluation items that we deploy when determining remuneration through our business reports.

Executives' Remuneration[1)] (Unit: person / 1,000 won)

Category	Number	Total	Average per person
Registered directors	3	572,492	190,831
External directors	3	90,000	30,000
Audit Committee members	2	60,000	30,000
Auditor	1	188,798	188,798

1) Based on the business report as of December 31, 2020

EWP grade at the public institution management evaluation

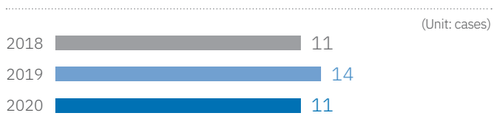
Excellent (A)

Board Efficiency

Board Operations

A BOD meeting is held with the attendance of at least half of the directors, and resolutions are made with the consent of the majority of the directors, excluding directors with special interests, on key issues of the company such as management goals, budget, and financial plans. The BOD meetings are divided into regular and temporary board meetings; in principle, regular board meetings are held every fourth Friday of the month. In 2020, the board held 11 meetings, reviewed a total of 48 agenda items, and received reports on 14 matters. We transparently disclose all major resolutions through our business reports.

BOD meetings



Attendance rate

Deploy Non-Executive Directors' Expertise to Revitalize the BOD

EWP strives to revitalize the board by strengthening the professional competence of its non-executive directors. We help our non-executive directors strengthen their competency by arranging their on-site inspections and providing them with the necessary data to deepen their insights into the industry while boosting their advisory and policy review functions through the operation of a management system for recommendations made at board meetings.

Results of Revitalization of Non-Executive Directors' Engagement

(Unit: case)

Description	2018	2019	2020
Professional committee meetings	4	7	10
Management suggestions	45	50	50
Reflections on management	10	15	30
Non-executive directors' lectures	1	2	6

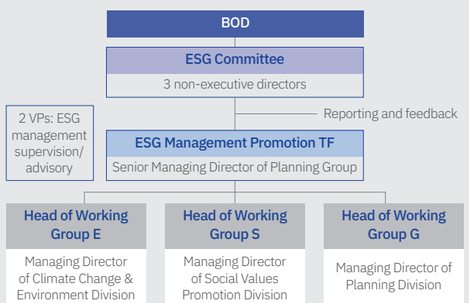
Non-executive directors' attendance rate

HIGHLIGHT

Launch of an ESG Committee

In June 2021, EWP launched the ESG Committee to build a companywide ESG decision-making system. Through the committee, we help our directors establish ESG management strategies and provide them with the necessary advice. The Planning Department in the Planning Division in charge of overall ESG management establishes companywide ESG management promotion plans, discovers tasks, and conducts monitoring. To that end, we launched the ESG Management Promotion TF composed of heads of each department to identify critical tasks in each field such as environment, society, and governance and report action plans and performance results to the ESG Committee within the BOD.

ESG Management Organization



Ethical Management

Ethical Management Promotion System

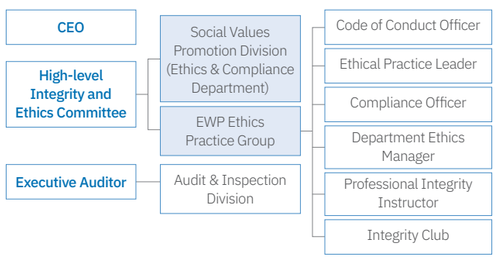
EWP is spreading a culture of ethics and integrity to its employees, partner companies, and citizens, starting with the management-led example of ethics and integrity. We are continuously evaluating and improving the level of our ethical management based on the integrity assessment of the ACRC. We strive to serve as a national public enterprise respected for our law-abiding and ethical management practices following the three major directions of our ethical management system.

Goal	**To Achieve Grade 1 in the ACRC Integrity Assessment**		
Vision	**A Respected Public Enterprise That Grows through Improved Integrity Based on Actions**		
Strategic Directions	**Improving Internal Integrity** through change and trust	**Improving External Integrity** through communication and sincerity	**Spreading an Integrity Culture** that pursues formation of sympathy and participation
Major Tasks	• Commencement of integrity diagnosis by outside experts • Eradication of unfair order in the workplace • Activation of anti-corruption and public interest report system • Establishment of communication channels for employees	• Enhancement of integrity and communication between partner companies • Initiation of Customer Delight 4Call • Integrity messages by management	• Strengthening integrity communication among employees • Relieving differences in awareness with millennials • Strengthening education programs on integrity awareness • Holding events under the themes of integrity, ethics, and culture
Monitoring System	**(Internal)** Self-integrity survey → Establishment of a plan to boost internal integrity **(Survey)** Diagnosis of harassment and abuse of power → Establishment of measures to eradicate abuse of power in the workplace	**(Compensation)** Clean mileage operation → Excellent prizes (50 people) **(Penalty)** Demotion, expansion of de-assignment, limitation of award-based commutation, etc.	

Ethical Management Organization and Roles

EWP has built an ethical management system based on collaboration between the Integrity and Ethics Committee—the highest decision-making body for integrity and ethical policies—and the middle— and lower-level working groups. The high-level Integrity and Ethics Committee decides important policies for ethical management and shares key issues as well as the ethical status with the CEO and management (quarterly). The Ethics & Compliance Department under the Social Value Promotion Division is in charge of ethical management and conflict management such as litigation and arbitration.

Ethical Management Organization Chart



Work Process

Execution	CEO → Social Values Promotion Division → Code of Conduct Officer, Compliance Auditor, etc.
Auditor	Executive auditor → Audit & Inspection Division → Solicitation Prevention Officer, etc.
Collaboration	High-level Integrity and Ethics Committee → EWP Ethics Practice Group → Integrity Club, etc.
External	Public enterprise Integrity Society Council, Ulsan Public Institution Audit Council, etc

Anti-corruption policy evaluation by the Anti-Corruption and Civil Rights Commission

"Excellent" class for 9 consecutive years (Grades 1 and 2)

Ethical Management Practice

Management's Leadership in Ethical Management

EWP is striving to raise awareness of integrity and ethics and form a sympathy on integrity among all its employees with its management taking the lead. We strongly declared the management's anti-corruption will internally and externally while the CEO and other executives directly deliver integrity messages every month to share the values of integrity through the "Executives' Real Voice In-house Ethics Broadcast." We are also spreading the spirit of compliance and ethics internally and externally through efforts such as sending out the "Management's Integrity Message" to our partner companies.

Improving Work Transparency through "Customer Delight 4Call"

EWP enhances transparency in transactions with its partner companies through uninterrupted communication. "Customer Delight 4Call" is a program wherein EWP listens to and resolves the difficulties of its suppliers through four stages of communication—Happy Call, Delight Call, Integrity Call, and Visit Call—from the contract execution to completion stages. In addition, we provide our business partners with the "Business Procedure Guidebook," which contains information on business procedures and related laws and regulations, from bidding to completion, so that we can transparently manage businesses with them based on the established procedures.

Enhancing Transparency in Customer Management and Customer Response

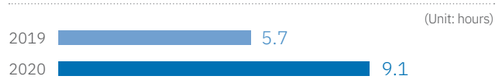
EWP has established the customer management code of conduct and customer response guidelines so that all employees can handle their work transparently and responsibly. To prevent corruption in advance, we have established—for departments in charge of contracts, personnel management, budget, and customer service—the customer management code of conduct, which specifies the standards for the conduct of each task, while distributing customer response guidelines and prescribing work procedures for different circumstances such as customer visits and phone calls with them.

Management's declaration of commitment to anti-corruption and integrity

Upgrading Employee Ethics Training

EWP conducts compulsory ethics education for all employees, including various programs such as cyber education, external education, and business site tours. Notably, in order to enhance the effectiveness of our ethics education, we have produced and implemented participatory content such as "Integrity Play" and "Integrity Quiz."

Ethics Training Hours per Person



No. of Ethics Trainees

Ethics Charter and Ethics Pledge

EWP presents ethical judgment standards to its employees based on its ethics charter, ethics guidelines, code of conduct, and ethics standards for partner companies in a bid to prevent corruption and create a clean public service environment. Every year, all our executives and employees are required to take the pledge of ethical practice and anti-corruption and integrity. The pledge to practice ethical management includes compliance with laws and company regulations and prohibition of corruption and unreasonable demands, actions, among others.

Ceremony of ethical management practice pledge

Spreading Sympathy on Ethical Culture through Participatory Ethical Management

EWP operates various ethical management programs based on communication and participation to boost its culture of integrity and ethics. Our “Ethical Culture Festival” consists of various programs participated by employees, citizens, and staff of public institutions. Some of the key events of the festival are “Challenge! Integrity Golden Bell,” where it covers questions about the code of conduct, Improper Solicitation and Graft Act, reporting system, etc., and a play that realistically dramatizes bribery, special favors, personal corruption of public officials, etc. The “Ethical Culture Festival” aims to form a sympathy on the integrity and ethical culture by enhancing stakeholders’ understanding and interest. We also strive to internalize the ethical awareness and spread the anti-corruption culture internally and externally through other activities such as “Corporate Ethics Week,” “Integrity Policy Debate,” and “Integrity Communication Relay.”

Strengthening the Effectiveness of Unethical Behavior Reporting Channels

As part of its efforts to ramp up its organizational integrity, EWP operates the “Red Whistle” and “Sinmungo” channels to enable employees to report unethical behavior. The “Red Whistle” is designed to receive anonymous reports on employees’ misconduct or honorable deeds. The “Sinmungo” is designed for employees to make reports on any violation of ethical regulations and human rights under their real names. We process reports received through various channels on the EWP website according to established procedures and notify whistleblowers of the results. Notably, we thoroughly protect whistleblowers’ anonymity per the relevant laws such as the Reporter Protection Regulations and the Personal Information Protection Act. In 2020, we introduced the “Representative Reporting by Law Firm System” and the “In-house Lawyer Legal Consultation System” to strengthen the anonymity and improve the effectiveness of the reporting system.

A scene from the integrity play titled “Integrity Boarding House”

Spreading the Anti-Corruption Culture to Partner Companies

To spread the anti-corruption and integrity culture, EWP helps its partner companies acquire anti-bribery management system (ISO 37001)[1)] certification. In 2017, EWP introduced an anti-corruption management system for the first time among public power companies in Korea. We are supporting our partner companies’ acquisition of anti-bribery management system certification in an effort to include them in our drive for anti-corruption and ethical management. In 2020, we helped a total of 10 partner companies acquire anti-bribery management system certification by providing them with consulting, training, and data related to certification as well as consultation through meetings.

1) An international standard certification established by the International Organization for Standardization (ISO) in 2016 to evaluate corporate anti-bribery infrastructures such as management leadership, work procedures, and anti-bribery system and operation

Audit System

EWP’s Audit Committee audits the company’s business and accounting and reports the results to the BOD. The Audit Committee consists of three directors, of which two out of three are external directors. With an external director serving as the chairperson, one out of three committee members shall have expertise in accounting and finance. An internal audit body is operated under the committee and is separated from the execution organization to ensure independence. The Audit & Inspection Division under the committee takes charge of operating the committee, conducting comprehensive audits, and evaluating the integrity and anti-corruption policies.

Audit Results[1)]

Category	Audit results
Daily audit	1,141 cases
Comprehensive audit	3 cases
Special audit	22 cases
No. of citations	280 cases
Financial measures	14.3 billion won
Personnel measures	129 persons

1) Period: Jan. 1, 2020.1.1- Dec. 31, 2020

Communication with Stakeholders

Communication Channels with Stakeholders

EWP is striving to establish a transparent management system through the operation of various public-participatory communication platforms. In addition, we are encouraging the participation of stakeholders in management and actively collecting their opinions by operating communication channels for each stakeholder group.

Communication Channels with Stakeholders

Internal

	Employees	Labor union	Subsidiaries
Key Concerns	Improvement of Organizational Culture of Trust, Communication, and Integrity	Reinforcement of Labor-Management Harmony and Communication on Management Issues and Policies	Strengthening Partnerships with Subsidiaries of Equal Status
Channels	• Human Rights Management Committee • EWP Ethics Practice Group • Discussions, surveys, etc.	• Workers’ BOD observation system • Dudream Evaluation Group • Labor-Management joint declarations, labor union newsletters	• Shared Growth Council of mother company and subsidiaries • Shared Growth Workshop
Achievements	• Corporate culture index: 83.7 → 85.6 points • Conducted 30 surveys • Held 5 discussion sessions	• 1st BOD observation system introduction among power companies • Won a Presidential Jobs Committee award • Special labor-management agreement to overcome the COVID-19 crisis • Joint declaration of labor-management promotion of EWP-type New Deal	• Labor-management joint human rights management agreement between mother company and subsidiaries • Office and lounge remodeling • Contribution of 0.9 billion won to Internal Fund

External

	Public	Partner companies	Related organizations
Key Concerns	Increasing Public Participation, Communication, and Information Sharing and Expanding Opinion Gathering	Boosting Worker Safety and Shared Growth	Creation of Social Value Synergy through Collaboration
Channels	• Public Participatory Innovation Group • Public surveys and contests • Media reports, SNS, YouTube • Information Disclosure System • Social Value Committee, etc.	• CEO-SMEs digitact communication management • SME Council • Safety Management Committee	• Ulsan Innovation City Public Institution Council • Ulsan Public Forum • Office of Education collaboration
Achievements	• Won the Minister of Health and Welfare award for social contributions • 9% increase in citizen participation (4,277 → 4,671 people) • 16% increase in media reports (5,080 → 5,914 cases) • “Best of the best” in comprehensive information disclosure evaluation for 3 years in a row	• Highest grade in shared growth for the 9th year • Zero death rate in industrial accidents per ten thousand employees	• Selected as an excellent case of active administration in the institutional cooperation sector • Reflection of high school credit system

"Public Participatory Innovation Group" for Management Innovation through Citizen Participation

EWP aims to enhance management transparency and realize management innovation through public participation. The "Public Participatory Innovation Group" is a participatory innovation initiative wherein citizens directly discover innovation tasks for EWP and participate in the overall innovation task implementation process. Launched in 2020, the 3rd Public Participatory Innovation Group is composed of 10 external members (experts, ordinary citizens, etc.) in various fields such as safety, environment, social value, and Industry 4.0. The proposals it has made so far include "Measures to activate non-face-to-face communication" and "Mid- to long-term innovation ideas." EWP reviews the proposals and actively reflects them to corporate policies, innovation plans, and implementation tasks while supporting public participation to promote empathy with the company's management activities.

Stakeholder Interview

1. Please introduce yourself and tell us how you decided to participate in the EWP Public Participatory Innovation Group.

Hello. I am the director of the Ulsan Culture Academy, which fosters cultural heritage commentators and provides education on humanities. EWP is the best-known institute among the 10 public institutes in Ulsan and all citizens of Ulsan are interested in it. I participated in the Public Participatory Innovation Group based on my interest as a citizen and recommendations by people around me.

2. What is the role of the Public Participatory Innovation Group, and what are the ideas shared here?

The Public Participatory Innovation Group discusses ideas through debates and meetings and provides feedback for the management agendas of the company. EWP collects opinions regularly regardless of format or period through The Public Participatory Innovation Group, and I think the company's willingness to reinterpret the management agenda from the perspective of citizens was a very good aspect. The Ulsan Cultural Academy aims at creating spaces where citizens and corporations can join together in humanities classes with the goal of awakening the values of our cultural heritage that we can be proud of, explore values, and expand the spectrum of expression. Ideas are made out of necessity, and in order for EWP to become closer to citizens, I suggested opening some of the company's facilities to the public.

3. What was EWP's response after receiving opinions from the Group?

EWP responded quickly. My suggestion was delivered to the applicable department. As a result, the auditorium was opened to be used for academic conferences, weddings, and concerts, whereas the outdoor facilities were opened to the public as a space for culture. I can feel another value of the existence of a company when it values the opinions of citizens and carefully reviews suggestions.

4. What do you want to see from EWP or expect from their ESG management in the future?

EWP announced that it is actively pursuing the switch to eco-friendly fuel and renewable energy and energy efficiency projects. I think special precautions should be taken for energy transition. As it is a public energy corporation that plays a crucial role for Korea to become carbon-neutral, an energy transition plan that fits the reality should be set up beyond government policies. Changes to the natural environment and ecosystem should be carefully analyzed while listening to the objective opinions of citizens to expand even further the window for communication that citizens can relate to. I hope that East-West Power will continue its ESG management moves that meet the eyes of citizens.

Ulsan Culture Academy Director
Lee, Sang-Do

Disclosure and Release of Information

"Integrated Disclosure System" for Expansion of Transparent Disclosure

EWP strives to enhance its management transparency by strengthening the integrated disclosure system (ALIO System). We disclose data for the last five years with regard to institutional operations, major businesses, and management status in the public institution management information disclosure system (ALIO system). For continuous improvement, we conduct satisfaction surveys and identify areas of necessary improvement in order to provide our stakeholders with user-centered information. In addition, in principle, we disclose 100% the list of production documents and present specific reasons beyond legal requirements when deciding not to disclose any information.

Transparent Record Management

EWP selects important records based on the four principles of record management and preserves them safely and efficiently. We have reopened the head office archives to enhance the ability of our internal and external visitors to read our records. We have improved our document management infrastructure to suit the circumstances of each business office while building and operating an integrated library for all our business offices. We also make efforts to collect and digitize previously distributed records and improve their usability.

Four Principles of Record Management

Authenticity	Prohibition of forgery of records	**Integrity**	Computerization of non-electronic documents
Availability	Operation of records management system	**Reliability**	Building a preservation environment for recordkeeping

EWP Headquarters Archives

Voluntary Participation in the CDP

EWP has been participating in CDP for nine consecutive years to spread its responsibility as a public energy company and willingness to respond to climate change. Most notably, although EWP is not obligated to disclose its information but strives to share its climate change response strategies and enhance its management transparency through voluntary participation in the CDP.

Key Information Items Disclosed

Category	Key components	Details
Corporate information	General corporate information	History, facility status, etc.
Governance	Management strategies and mid- to long-term goals	Board reports, company management strategies, low-carbon transition plans, investment plans, etc.
Assessment of risks and opportunities related to climate change	Assessment of opportunities to respond to climate change and related companies' responses	Measures to increase climate change awareness, legal regulations, etc.
Emission information	GHG emissions, etc.	Emission information
Validation and participation in ETS	Main methods of participate participating in external verification and ETS participation status	Major verification methods, ETS participation details, etc.

Comprehensive information disclosure evaluation by the government

Excellent
for 3 consecutive years

CDP rating

B

Risk Management

Risk Management System

Having established a risk management system, EWP manages risks by preemptively identifying changes in the rapidly changing internal and external business environments. Each dedicated department monitors financial and non-financial risks, implements response activities customized for the types of risks, and reports the risk management status and results to the CEO through the Financial Performance Improvement Committee.

Risk Management System

Risk Classification and KRIs	**Financial Risk**	**Non-Financial Risk**
	• Market Risk 1) Exchange rate: Exceeding the exchange rate variation 2) Fuel cost: Price of bituminous coal per unit power generation 3) Electricity market: Market price	• Liquidity Risk 1) Interest rate: KTB interest rate 2) Vault cash: Target vault cash
	• Operational Risk 1) Power generation: Facility utilization rate 2) New business: Renewable power generation capacity	• Policy Risk 1) Renewables: REC acquisition rate 2) Environment: Carbon emission compliance rate

Management System	**Financial Performance Improvement Committee (CEO)**	
	Financial Risk	**Non-Financial Risk**
Dedicated Departments	Planning Division, Corporate Partnership & Procurement Division, Power Generation Division	Power Generation Division, New Energy Transition Division, Renewable Energy Division, Climate Change & Environment Division
Periodic Monitoring	Financial Risk Management Committee, etc.	Risk Investment Review Committee, etc.

Response Procedure	Regular monitoring	Risk level diagnosis	Response system conversion	Operation of the Emergency Response Committee	Feedback

Financial Risk Management

EWP manages financial risks in accordance with the “Financial Risk Management Guidelines.” The Financial Risk Management Committee deliberates and decides on important financial risk issues every quarter in accordance with the guidelines, with the financial risk scale and management performance reported to the CEO. In addition, we have developed and operated a “Foreign exchange and debt management system” aimed at securing stability and soundness in our management performance for the establishment of a systematic financial risk management system.

Environmental Risk Management

Based on our own environmental risk management system, we preemptively identify environmental risks and prevent violations of environmental laws and regulations in advance.

Environmental Risk Management Process

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Data Center

Financial Performance

Summary of Consolidated Financial Statements

Classification	Unit	2018	2019	2020
Current Assets	KRW 100 million	10,710	13,496	13,313
Non-Current Assets		77,411	85,331	84,412
Total Assets		**88,121**	**98,827**	**97,725**
Current Liabilities		7,104	15,231	12,796
Non-Current Liabilities		34,718	35,877	37,787
Total Liabilities		**41,819**	**51,108**	**50,583**
Paid-in Capital		22,186	22,186	22,186
Retained Earnings		24,063	25,503	24,861
Other Capital Components		-125	-205	-137
Equity Attributable to Shareholders of the Parent Company		46,124	47,484	46,910
Non-Controlling Interests		178	235	232
Total Equity		**46,302**	**47,719**	**47,141**

Summary of Consolidated Comprehensive Income Statements

Classification	Unit	2018	2019	2020
Sales	KRW 100 million	49,728	48,960	41,879
Cost of Goods Sold		47,882	46,192	41,127
Gross Profits		**1,846**	**2,768**	**752**
Sales and Administrative Expenses		1,259	1,539	1,602
Operating Profits		**586**	**1,229**	**-851**
Other Revenue		161	185	310
Other Expense		72	41	107
Other Costs(Loss)		6	84	-295
Financial Income		1,074	980	2,420
Financial Cost		1,869	2,057	3,032
Profits/Losses Related to Investments by Affiliated Companies and Joint Companies		-38	885	565
Income Before Tax Expenses(Loss)		-152	1,264	-989
Income Tax Expenses		-72	-151	-547
Net Income		**-81**	**1,415**	**-442**

Summary of Separate Financial Statements

Classification	Unit	2018	2019	2020
Current Assets	KRW 100 million	10,242	12,416	12,810
Non-Current Assets		77,202	84,827	83,385
Total Assets		**87,444**	**97,243**	**96,195**
Current Liabilities		7,085	15,133	12,666
Non-Current Liabilities		33,839	35,097	37,081
Total Liabilities		**40,925**	**50,229**	**49,746**
Paid-in Capital		22,186	22,186	22,186
Retained Earnings		24,442	25,047	24,169
Other Capital Components		-109	-219	93
Total Equity		**46,519**	**47,014**	**46,448**

Summary of Separate Comprehensive Income Statements

Classification	Unit	2018	2019	2020
Sales	KRW 100 million	49,335	48,560	41,554
Cost of Goods Sold		47,578	45,839	40,830
Gross Profits		**1,758**	**2,720**	**724**
Sales and Administrative Expenses		1,197	1,464	1,541
Operating Profits		**560**	**1,257**	**-817**
Other Revenue		161	185	305
Other Expense		57	45	101
Other Costs(Loss)		-30	-55	-171
Financial Income		1,100	1,117	2,713
Financial Cost		1,840	2,033	3,012
Profits/Losses Related to Investments by Affiliated Companies and Joint Companies		-	-10	-117
Income Before Tax Expenses(Loss)		-105	415	-1,199
Income Tax Expenses		-138	-152	-545
Net Income		**33**	**567**	**-654**

Economic Performance

Classification			Unit	2018	2019	2020
Installed Capacity			MW	11,189	11,193	11,238
Power Generation Volume	Fossil Fuel	Coal	GWh	41,227	41,456	36,371
		LNG		9,446	7,840	7,321
		Oil		2,480	1,247	1,504
		Subtotal		53,153	50,544	45,196
	Renewable	Overall		322	347	370
	Company	Overall		53,475	50,891	45,566
RPS Performance Rate			%	100	100	100
Sales Volume			GWh	50,766	48,204	43,079
Sales Revenue			KRW 100 million	47,772	46,576	39,855
Sales Price per Unit Power Generation			KRW/KWh	94.1	96.62	92.52
Forced Outage Rate			%	0.027	0.011	0.00061
Unplanned Loss Rate				0.039	0.019	0.0071
Operation Rate				85.17	87.44	85.51
Utilization Rate				54.57	51.91	46.25
Thermal Efficiency				40.03	39.55	39.43
Power Station Internal Load				5.39	5.56	5.83
R&D of Renewable Energy	R&D investment costs		KRW 100 million	30.3	41.5	43.1
Officers & Employees	Salary, welfare costs			2,487	2,447	2,504
Shareholders	Dividends			10	180	-
Creditors	Interest expenses			1,032	1,158	1,111
Government	Corporate taxes, local taxes			200	95	266
Local Community	Social contribution, donations			43	54	51
Reinvestment	Surplus excluded from dividends			24	387	9,069

Environmental Performance

Classification		Unit	2018	2019	2020
GHG	Scope 1	1,000 tons CO_2-eq	39,431	38,944	34,817
	Scope2		85	74	89
	Scope3		12,813	11,888	10,910
Energy Consumption	Energy Consumption volume	TJ	484,063	469,057	420,898
	Energy per Unit Power Generation	GJ/MWh	9.05	9.22	9.24
Fuel Usage	Coal	10,000 tons	1,654	1,646	1,411
	Oil	1,000 KL	603	318	382
	LNG	1,000 tons	1,354	1,131	1,089
Air Pollutant Emissions per Unit Power Generation	SOx	Ton	10,932	7,813	6,620
	NOx		13,308	9,724	6,796
	Dust		523	509	411
Air Pollutant Unit Emissions	SOx	Ton/GWh	0.206	0.155	0.146
	NOx		0.250	0.192	0.150
	Dust		0.010	0.010	0.009
Water Pollutant Emissions	COD	Ton	13	7	7
	SS		8	6	6
	T-N		22	15	18
	T-P		0.09	0.04	0.06
Water Pollutant per Unit Power Generation	COD	kg/GWh	0.25	0.13	0.16
	SS		0.15	0.12	0.14
	T-N		0.41	0.3	0.41
	T-P		0.002	0.001	0.001
Water	Seawater usage	million tons	6,187	6,315	5,962
	Total water usage	1,000 tons	12,821	12,099	12,758
	Wastewater generated amount		4,055	3,795	4,133
	Wastewater recycled amount		1,458	1,473	1,747
	Wastewater recycling rate	%	36	39	42
Waste (Excluding coal ash)	General waste generated amount	Ton	33,046	29,015	24,542
	General waste recycled amount		27,330	22,035	18,570
	General waste recycling rate	%	83	76	76
	Designated waste generated amount	Ton	3,216	1,820	2,059
	Designated waste recycled amount		1,229	1,113	1,203
	Designated waste recycling rate	%	38	61	58
FGD Gypsum and Coal Ash	FGD gypsum generated amount	1,000 tons	430	262	266
	FGD gypsum recycled amount		434	268	250
	FGD gypsum recycling rate	%	101	102	94
	Coal ash generated amount	1,000 tons	2,117	2,024	1,672
	Coal ash recycled amount		1,615	2,277	1,766
	Coal ash recycling rate	%	76	113	106
Environmental Compliance	Number of violations	Cases	4	3	4
	Monetary value of fines	KRW 10,000	480	640	744

Social Performance

Classification			Unit	2018	2019	2020
Total Number of Officers and Employees			Persons	2,463	2,470	2,466
Status of Officers and Employees_ By Type of Employment	Full time	Total	Persons	2,463	2,470	2,466
		Women		310	316	328
		Men		2,153	2,154	2,138
		Korea		2,463	2,470	2,466
		Overseas		0	0	0
	Part time	Total		20	48	30
		Women		1	1	0
		Men		19	47	30
		Korea		20	48	30
		Overseas		0	0	0
	Non affiliated manpower			552	576	638
Status of Officers and Employees_ By Type of Work	Full time	Total	Persons	2,463	2,470	2,466
		Women		310	316	328
		Men		2,153	2,154	2,138
	Part time	Total		0	0	0
		Women		0	0	0
		Men		0	0	0
Diversity of the BOD	Women		Persons	1	1	1
	Men			8	8	8
	Under the age of 30			0	0	0
	aged between 30-50			2	2	1
	Over the age of 50			7	7	8
Diversity of Officers and Employees	Ratio of the disabled		%	4.1	3.9	3.7
	Ratio of women		%	13.8	13.9	13.3
	Number of women managers		Persons	38	40	38
	Ratio of women managers		%	5.8	5.8	5.8
	Under the age of 30		Persons	1,440	1,439	1,444
	aged between 30-50			407	378	374
	Over the age of 50			616	653	647
No. of New Hires	New hires		Persons	144	91	55
	Women			27	20	14
	Men			117	71	41
	Under the age of 30			116	69	36
	aged between 30-50			22	21	18
	Over the age of 50			6	1	1
Employment Security	Average years of continued service		Years	15.9	16.0	16.9
	Turnover rate		%	1.46	1.09	1.8

Classification			Unit	2018	2019	2020
Social Equality Position Employment	New hires		Persons	144	91	55
	Women			27	20	14
	Men			117	71	41
	Under the age of 30			116	69	36
	aged between 30-50			22	21	18
	Over the age of 50			6	1	1
	Talents of non-metropolitan area			88	55	33
	Talents of relocated area			28	18	8
	Men of national merit			14	9	21
	High school graduates			7	13	4
	Disabled			7	2	1
Operation of the BOD	Number held		Time	11	14	11
	Agenda for resolution		Cases	46	48	48
	Agenda for revised resolution		Cases(%)	1(2%)	3(6%)	0(0%)
	Agenda reported		Cases	6	9	14
	BOD attendance rate		%	94	92.1	99
	Non-standing director attendance rate		%	100	94.3	98.2
Family-Friendly Management	On parental leave	Men	Persons	11	14	24
		Women		64	59	62
	Number of reinstatement after parental leave	Men		6	5	19
		Women		28	20	27
	Number of those continuously serving 1 year or longer since reinstatement after parental leave	Men	Persons	10	13	30
		Women		60	68	69
	Rate of reinstatement after parental leave	Men	%	100	100	95
		Women		100	95	96
	Rate of those continuously serving 1 year or longer since reinstatement after parental leave[1)]	Men		100	100	97.2
		Women		100	98.5	96.8
	Women working under hour selection system		Persons	34	31	35
	On flexible working system		Persons	1,765	2,346	2,447
	Hours of Overtime Worked per Employee		Hours	25.7	23.5	14.4
	Number of days on vacation		Days	21.6	21.9	20.9
Talent Development	Average training hours per officer or employee		Hours	252	245	220
	Educational expenses per officer or employee		KRW 1,000	3,600	3,790	3,170
	Education budget		KRW 100 million	89.5	92.5	82.1
	Education beneficiary		Persons	52,467	56,547	68,767
	Women employee competency index		Points	4.66	4.63	4.64
Officers' and Employees' Satisfaction	Internal education satisfaction		Points	83.6	86.9	78.9

Classification			Unit	2018	2019	2020
Anti-Corruption & Civil Rights Commission's Survey Results	Number of those who completed ethics education		Persons	2,309	2,313	2,408
	Number of those who completed human rights education			2,266	2,387	2,259
Social Contribution	Social contribution expenditure		KRW 100 million	13	14	17
	Total hours volunteered		Hours	63,470	66,372	56,829
	Average hours volunteered per employee		Hours	29.4	30.8	26.1
Integrity Assessment	Anti-Corruption & Civil Rights Commission's survey results		Points	8.69	8.73	8.77
Anti-Corruption Policy Evaluation	Anti-Corruption & Civil Rights Commission's survey results		Rating	1	1	2
Labor Union	Number of those subscribing to labor union		Persons	1,745	1,744	1,723
	Rate of labor union subscription		%	97.9	96.4	97.3
Occupational Safety and Health	Employees	Accident rate[2]	%	0	0.04	0
		Death rate in industrial accidents per ten thousand employees[3]	‰	0	0	0
	Partner companies	Accident rate	%	0.13	0.05	0.11
		Death rate in industrial accidents per ten thousand employees	‰	0	0	0
	Number of safety accidents		Cases	4	3	4
Shared Growth	Amount of purchased products from corporation run by female leaders		KRW 100 million	255	302	437
	Amount of purchased technology development products		KRW 100 million	276	575	403
Regional Support Project	Energy welfare for the marginalized		Households	621	1,352	1,511
	Purchase of Onnuri gift certificates		KRW 100 million	6.93	6.68	7.8
	Purchase of social economy enterprise products	Social enterprise	KRW 100 million	98.3	120	129
		Cooperative		4.16	6.4	17.3
Cyber Security	No. of complaints related to the personal information of customers		Cases	0	0	0
	No. of cases of customer information leak, theft, loss in which			0	0	0
Anti-Corruption	number and nature of confirmed incidents of corruption		Cases	0	0	1
	confirmed incidents in which employees were dismissed or disciplined for corruption			0	0	1
	No. of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption			0	0	0
Legal Actions for Anti-Competitive Behavior, Anti-Trust, and Monopoly Practices	Number of legal actions pending or completed		Cases	0	0	0
	Monetary value of fines		KRW	0	0	0

1) Rate of working for more than one year after use of parental leave: Number of employees working for more than one year after returning / Number of returnees during previous reporting period * 100
2) Accident rate (%): [(no. of fatalities + no. of injuries)/no. of permanent workers]*100
3) Death rate in industrial accidents per ten thousand employees(‰): (no. of fatalities/no. of permanent workers)*10,000

GRI Content Index

Universal Standards						
Topic	**Disclosure**		**Page**	**Assurance**	**ISO 26000**	**UN SDGs**
Organizational Profile	102-1	Name of the organization	4	v	6.3.10/6.4.1-6.4.2/6.4.3/6.4.4/6.4.5/6.8.5/7.8	
	102-2	Activities, brands, products, and services	4	v		
	102-3	Location of headquarters	4	v		
	102-4	Location of operations	4	v		
	102-5	Ownership and legal form	4	v		
	102-6	Markets served	6-11	v		
	102-7	Scale of the organization	4	v		
	102-8	Information on employees and other workers	90	v		6
	102-9	Supply chain	59	v		
	102-10	Significant changes to the organization and its supply chain	N/A	v		
	102-11	Precautionary Principle or approach	84	v		
	102-12	External initiatives	100	v		17
	102-13	Membership of associations	101	v		
Strategy	102-14	Statement from senior decision-maker	2	v	4.7/6.2/7.4.2	
Ethics and Integrity	102-16	Values, principles, standards, and norms of behavior	26-27	v	4.4/6.6.3	16
	102-17	Mechanisms for advice and concerns about ethics	80	v		
Governance	102-18	Governance structure	75	v	6.2/7.4.3/7.7.5	5 16
	102-21	Consulting stakeholders on economic, environmental, and social topics	77	v		
	102-22	Composition of the highest governance body and its committees	75	v		
	102-23	Chair of the highest governance body	75	v		
	102-24	Nominating and selecting the highest governance body	75	v		
	102-28	Evaluating the highest governance body's performance	76	v		
	102-31	Review of economic, environmental, and social topics	35, 77	v		
Stakeholder Engagement	102-40	List of stakeholder groups	81	v	5.3	
	102-41	Collective bargaining agreements	100%	v		8
	102-42	Identifying and selecting stakeholders	28, 81	v		
	102-43	Approach to stakeholder engagement	28, 81	v		
	102-44	Key topics and concerns raised	29	v		
Reporting Practice	102-45	Entities included in the consolidated financial statements	86	v	5.2/7.3.2/7.3.3/7.3.4	
	102-46	Defining report content and topic Boundaries	About this Report	v		
	102-47	List of material topics	29	v		
	102-48	Restatements of information	Restatements of oil usage (include all business sites, bc oil and bio heavy oil)	v		
	102-49	Changes in reporting	29	v		
	102-50	Reporting period	About this Report	v	7.5.3/7.6.2	
	102-51	Date of most recent report	About this Report	v		
	102-52	Reporting cycle	About this Report	v		
	102-53	Contact point for questions regarding the report	About this Report	v		
	102-54	Claims of reporting in accordance with the GRI Standards	About this Report	v		
	102-55	GRI Content Index	93-95	v		
	102-56	External assurance	98-99	v		

Topic-specific Standards						
Topic	**Disclosure**		**Page**	**Assurance**	**ISO 26000**	**UN SDGs**
Material Topic 1: Response to Climate Change						
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	30, 35-38	v	-	
	103-2	The management approach and its components				
	103-3	Evaluation of the management approach				
GRI 305 Emissions 2016	305-1	Direct (Scope 1) GHG emissions	36, 89	v	6.5.5	
	305-2	Energy indirect (Scope 2) GHG emissions	36, 89	v		
	305-5	Reduction of GHG emissions	38	v		
Material Topic 2: Air Pollutant Control						
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	30	v	-	
	103-2	The management approach and its components				
	103-3	Evaluation of the management approach				
GRI 305 Emissions 2016	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	46, 89	v	6.5.3	
Material Topic 3: Response to Environmental Laws and Regulations						
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	30	v	-	
	103-2	The management approach and its components				
	103-3	Evaluation of the management approach				
GRI 307 Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	89	v	4.6	
Material Topic 4: Transition into Renewable Energy						
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	30, 39	v	-	
	103-2	The management approach and its components				
	103-3	Evaluation of the management approach				
GRI 203 Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	18-19, 39-40	v	6.3.9/6.8.1-6.8.2/6.8.7/6.8.9	
	203-2	Significant indirect economic impacts	18-19, 39-40	v	6.3.9/6.6.6/6.6.7/6.7.8/6.8.1-6.8.2/6.8.5/6.8.7/6.8.9	
Material Topic 5: Build a Safety, Health, and Emergency Response System						
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	31, 60	v	-	
	103-2	The management approach and its components				
	103-3	Evaluation of the management approach				
GRI 403 Occupational Health and Safety 2018	403-1	Occupational health and safety management system	60	v	6.4.6	
	403-2	Hazard identification, risk assessment, and incident investigation	61	v		
	403-5	Worker training on occupational health and safety	61	v		
	403-6	Promotion of worker health	61	v		
	403-9	Work-related injuries	60, 92	v		

Topic-specific Standards						
Topic	**Disclosure**		**Page**	**Assurance**	**ISO 26000**	**UN SDGs**
Material Topic 6: Ethical Management						
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	31	v	-	
	103-2	The management approach and its components				
	103-3	Evaluation of the management approach				
GRI 205 Anti-corruption 2016	205-3	Confirmed incidents of corruption and actions taken	92	v	6.6.1-6.6.2/6.6.3	
Material Topic 7: Supplying Economical and Stable Power Supply						
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	30, 31	v	-	
	103-2	The management approach and its components				
	103-3	Evaluation of the management approach				
GRI 201 Economic Performance 2016	201-2	Financial implications and other risks and opportunities due to climate change	36	v	6.5.5	
Material Topic 8: Wastewater and Waste Management						
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	30	v	-	
	103-2	The management approach and its components				
	103-3	Evaluation of the management approach				
GRI 303 Water and Effluents 2018	303-2	Management of water discharge-related impacts	47, 89	v	6.5.4	
	303-3	Water withdrawal				
	303-5	Water consumption				
GRI 306 Waste 2020	306-3	Waste generated	47, 89	v	6.5.3	
	306-4	Waste diverted from disposal				
	306-5	Waste directed to disposal				
Material Topic 9: Find New Projects and Establish Businesses						
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	30	v	-	
	103-2	The management approach and its components				
	103-3	Evaluation of the management approach				
GRI 302 Energy 2016	302-1	Energy consumption within the organization	45, 89	v	6.5.4/6.5.5	
	302-4	Reduction of energy consumption	45, 89	v		
	302-5	Reduction in energy requirements of products and services	48	v		
Material Topic 10: Response to Social and Economic Regulations						
GRI 103 Management Approach 2016	103-1	Explanation of the material topic and its Boundary	31	v	-	
	103-2	The management approach and its components				
	103-3	Evaluation of the management approach				
GRI 206 Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	59, 92	v	6.6.1-6.6.2/6.6.5/6.6.7	
GRI 419 Socioeconomic Compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	Business report	v	4.6/6.7.1-6.7.2/6.7.6	

TCFD Index

The TCFD recommendations contain items for information disclosure in the four main fields of governance, management strategy, risk management, and index and goals with the goal of disclosing climate-related information. We intend to report climate change response activities according to the TCFD recommendations and take part in the climate change information disclosure goals of the international community.

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

SASB INDEX

The SASB standards categorize 77 industry groups based on the sustainable accounting standards per industry as announced by the SASB of the US. The SASB standards present the definitions and standards of non-financial information so that the non-financial performance that affects a company's sustainability can be compared with other companies in the same industry. As our main business deals with the development and generation of electric power resources, we file our reports based on the "Electric Utilities & Power Generators" industry.

Topic	Code	Accounting Metric	Unit	Response of EWP
Sustainability Disclosure Topics & Accounting Metrics[1)]				
Greenhouse Gas Emissions & Energy Resource Planning	IF-EU-110a.1	1) Scope 1 emissions in Korea 2) Percentage coverd under Emissions-limiting regulations 3) Percentage coverd under Emissions-reporting regulations	Ton CO_2-eq % %	1) 34,817(Based on Korean sites) 2) 100 3) 100
	IF-EU-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets and an analysis of performance against those targets	-	Page. 36
	IF-EU-110a.4	Percentage fulfillment of RPS target by market	%	100(5,458,110MWh)
Air Quality	IF-EU-120a.1	1) NOx 2) SOx 3) Particulate matter	Ton	1) 6,796 2) 6,620 3) 411
Water Management	IF-EU-140a.1	Total water consumed	m^3	12,757,570
	IF-EU-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	Number	0
	IF-EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	-	Page. 47
Coal Ash Management	IF-EU-150a.1	Amount of coal combustion residuals (CCR) generated, percentage recycled	Ton %	1,672,000 106
	IF-EU-150a.2	Total number of coal combustion residual (CCR) impoundments, broken down by hazard potential classification and structural integrity assessment	Number	3(Dangjin Power Complex, Honam Power Complex, Donghae Power Complex)
Workforce Health & Safety	IF-EU-320a.1	Fatality rate	%	0

1) Non-applicable indices and Activity Metrics did not apply, so they were excluded.

Independent Assurance Statement

Control Union Certifications was commissioned by Korea East-West Power Co. Ltd to conduct an independent assurance of 2021 Korea East-West Power Sustainability Report. The information in the Sustainability Report is the exclusive responsibility of Korea East-West Power Co. Ltd. Control Union Certifications was not involved in the preparation of any material included in this document. The responsibility of Control Union is to express an opinion concerning the information including graphs, tables and statements included in the Report, within the assurance scope mentioned below, with the purpose to inform all the Interested Parties.

Assurance Scope

The assurance engagement has been planned and performed in accordance with AA1000AS v3 and the assurance criteria below to a “Moderate level of assurance” where the scope was a Type 2 engagement. The sustainability report is developed using the Global Reporting Initiative (GRI) standards. The assurance process involves verification of the following aspects:

INCLUSIVITY

Engagement with stakeholders in the report development process and their involvement in organizational decision making.

Korea East-West Power has identified stakeholders by dividing them into internal and external stakeholders. Internal stakeholders include subsidiaries, company executives, employees and the labour union. External stakeholders also include, customers, and local communities. Korea East-West Power engages with stakeholders annually using channels such as surveys and face-to-face meetings at all levels to announce and fulfil its responsibilities to the stakeholders. The company makes efforts to properly reflect opinions and expectations into its strategies.

MATERIALITY

Identification of issues in the report that are relevant and significant to the organization’s stakeholders, the presence of and the extent to which these material issues are disclosed in the report.

Korea East-West Power identified the material issues using the stakeholder communication channel and their own materiality assessment process. The outcome is a materiality matrix which shows climate change as the most prioritized topic by the stakeholders of Korea East-West Power. Korea East West Power has documented their strategy for tackling climate change and reducing GHG emissions in their operations.

RESPONSIVENESS

Acting on stakeholder issues and provision of feedback through decisions, actions, performance and communication.

Korea East-West Power has set in place an ESG planning & Evaluation Office and E-working group related to ESG, who are responsible for managing and establishing ESG strategies and action plans. With respect to the topmost material topic of climate change Korea East West Power has the following approach in place to tackle it:

- They have mid-term and long term GHG emission reduction plans such as changing to renewable energy & alternative energy use E.g. Switching from thermal power to wind, renewable energy, solar energy and biomass energy by 2035
- Reduced production lines to further decrease GHG emissions

Korea East-West Power addressed all relevant GRI disclosure indicators in their sustainability report.

IMPACT

Monitoring, measurement and providing accountability for how the actions of the organization affect the economy, the environment, society, stakeholders or the organization itself.

Korea East West Power calculated and reported the total amount of scope 1, scope 2 and scope 3 GHG emissions released as a result of their operations.. The company is striving to continuously monitor their impact on the environment using their own electronic database system and in turn minimize any adverse effects by reducing the GHG emissions with extra effort.

Level of Assurance

The level of Assurance is used to determine the depth of detail that an assurance provider uses to identify if there are material errors, omissions or misstatements. The level of assurance for this report is moderate.

Methodology

- Review of internal and external documentary evidence presented by Korea East-West Power
- Review of approach to data collection at company level
- Audit of data presented in the Report including a detailed review of a sample of data
- Review of a selection of internal performance documents

Independence and Quality Control

Control Union Certifications is accredited according to ISO 17021-1:2015/ISO 17065:2012 covering our global scope and operations. This includes the need to maintain a comprehensive system of quality control including documented policies and procedures on compliance to ethical and legal requirements as well as objectivity throughout our operations. The auditors were selected appropriately based on our internal qualifications, training and experience. It is also reviewed by management to ensure that the applied approach and assurance are strictly followed and operated transparently.

Conclusions

Based on our moderate assurance process, nothing has come to our attention that causes us to believe that the scope (subject matter) as detailed above and presented in the report is not presented fairly in accordance with the criteria.
Hence, our work confirms that the information included in the sustainability report is reliable and objective and is presented clearly and understandably.

We provide the following recommendations to the extent that it does not affect the results of the assurance:

Korea East-West Power is a public enterprise that strives to provide stable and economic power in Korea. The company tracks and manages GHG emissions and air pollutants that may occur in the process of generating electricity. It was also confirmed that we are making efforts to improve the efficiency of electricity generation through renewable energy. However, it is necessary to establish a clearer management system to respond to stricter environmental laws and regulations.

Program Manager **Jon Heinrichs**

October 12, 2021

AA1000
Licensed Report
000-159/V3-UCULO

CONTROLUNION

UNGC Advanced Level

In 2006, we reflected the international standards for sustainability pursued by the UN and joined the UN Global Compact to share our will to pursue this. We declared our support for and execution of the ten rules in the four fields of human rights, labor, environment, and anti-corruption, and we are creating achievements through linkage with the SDGs.

Division		Principle	Page	GRI Disclosures
1	Governance	This integrated report (IR) describes the discussions at the level of the CEO and the BOD regarding the strategic aspects of the implementation of the UNGC.	35, 75	102-14
2		This IR explains the company's decision-making processes and corporate governance to achieve its sustainability.	35, 75	102-18, 21
3		This IR describes the engagement of all of the company's major stakeholders.	28, 81	102-43
4	UN Goals and Issues	This IR describes activities designed to support comprehensive goals and issue of the United Nations.	34, 50, 74	102-12
5	Human Rights	This IR describes the company's strong commitment, strategies and policies in the area of human rights.	64-65	103-1
6		This IR describes an effective management system designed to integrate its human rights principles.	64-65	103-2
7		This IR describes effective monitoring and evaluation mechanisms about human rights principles	64-65	412-2
8		This IR applies standardized performance indices (including GRI) about human rights.	64-65	405-1
9	Labor	This IR describes the company's strong commitment, strategies and policies in the area of labor.	66-69	103-1
10		This IR describes an effective management system designed to integrate its labor principles.	66-69	103-2
11		This IR describes effective monitoring and evaluation mechanisms about labor principles.	66-69	103-3
12		This IR applies standardized performance indices (including GRI) about labor.	66-69	402-1, 403-2, 405-1
13	Environment	This IR describes the company's strong commitment, strategies and policies in the area of environmental management.	35, 44	103-1
14		This IR describes an effective management system designed to integrate its environmental principles.	44	103-2
15		This IR describes effective monitoring and evaluation mechanisms about environmental management.	44-47	103-3
16		This IR applies standardized performance indices about environmental management.	34, 44	302-1, 306-2, 307-1
17	Anti-Corruption	This IR describes the company's strong commitment, strategies and policies in the area of anticorruption efforts.	78	103-1
18		This IR describes an effective management system designed to integrate its anti-corruption principles.	78-80	103-2
19		This IR describes effective monitoring and evaluation mechanisms in the area of anti-corruption efforts.	78-80	205-2
20		This IR applies standardized performance indices about anti- corruption efforts.	74	205-2
21	Strategies, Governance and Engagement	This IR explains about the implementation of Global Compact Principles within the company's value chain.	30-31	-
22	Assurance and Transparency	This IR offers information on the corporate profile and operational environments.	4-13	102-1~10
23		This IR includes a high level of transparency and disclosure.	93-95	102-50~56

Memberships

Memberships	Purpose	Date
Korea Power Plant Byproduct Recycling Association	System reforms, policy response, technological investigations, etc. for promoting the recycling of cinder	Sep. 2020
Korea Society of IT Services	Identify trends and strengthen mutual cooperation among member companies	Nov. 2019
The Korean Society of Climate Change Research	Academic research on climate change and policy reform activities related to climate change	Oct. 2019
Korean Recycled Construction Resources Institute	Explore new waste recycling sites and participate in research on the latest recycling technology	Aug. 2019
Korea Plant Industries Association	Support for overseas advancement of Korean companies and exchange of information among member companies	Jun. 2019
Korean Association for Supporting the SDGs for the United Nations (ASD)	Participate in information exchange and events in Korea and abroad for Sustainable Development Goals	Apr. 2019
Korea Photovoltaic Industry Association	Study on the technical trends and information exchange among members	Mar. 2019
Korean Society for Prognostics & Health Management	Attend seminars and provide PHM technical consulting and joint equipment utilization services	Jan. 2019
Korea Emissions Market Association	Pursue the activation of the emissions market, response to government program reforms, and mutual cooperation among member companies	Jun. 2018
Energy Transition Forum	Response to energy transition policies and sharing of energy transition activities with member companies and experts in the relevant fields	Mar. 2018
Korea Environment Engineers Association	Exchange data on new environmental technologies and securing the latest environmental information	Jan. 2018
Korea Wind Energy Industry Association	Foster and develop the wind power industry by forming networks with similar organizations related to wind power	Jun. 2016
Jeonnam Wind Power Association	Activate the wind power generation business and establish an environment for attracting wind power equipment businesses in Jeonnam	Jun. 2014
Korean Society for Quality Management	Share academic papers related to quality management in Korea and abroad	Mar. 2014
Maritime Rescue & Salvage Association	Private-public cooperation to prevent and respond to maritime disasters and accidents	May 2013
Korea New & Renewable Energy	Exchange information on new & renewable energy	Jan. 2013
Korea Smart Grid Association	Exchange information on smart grid and examination of the industry trend	Jul. 2012
Korea Association of Small Business Studies	Quick response to government policy and interchange of academic information with the organization that is part of the government policy for shared growth	Jul. 2011
Association of the Electric Supply Industry of East Asia and the West Pacific (AESIEAP)	Gather information on entry into and development of overseas business	Feb. 2011
Korea Carbon Capture and Storage Association	Exchange information on carbon capture and storage	Sep. 2010
Power Generation Studies Institute	Advance the power generation industry and identify of joint research subjects	Jul. 2010
Korea Project Management Association	Improve project execution capability	Mar. 2008
Korea Electric Engineers Association	Promote R&D of power technologies and education/training of professionals in power	Mar. 2008
World Energy Congress	Build human and technology network with international energy organizations and member countries	Jan. 2007
UN Global Compact (UNGC)	Exchange information on sustainability and participation in exchange events in Korea and abroad	Jun. 2006
The Electric Utility Cost Group (EUCG)	Obtain international power information and benchmarking	Jan. 2006
Edison Electric Institute (EEI)	Gather information on entry into and development of overseas business	Mar. 2004
Korean Standards Association	Introduce advanced quality management technique and spread quality management mind	Jan. 2003
Korea Electric Association	Exchange information on electricity, participate electrical day, and contribute to the development of Korea Electric Power Industry Code (KEPIC)	Sep. 2002
The Korean Society of Mechanical Engineers	Examine Korean and overseas trends in electrical engineerings and exchange information	Aug. 2002
The Korean Institute of Electrical Engineers	Examine Korean and overseas trends in electricity and exchange information	Jun. 2002
Korea Energy Foundation	Energy welfare programs such as assistance of low-income families and scholarship programs	May 2002

Awards

Awards	Awarding institute	Date
Grade 1, Anti-corruption policy evaluation	Anti-corruption & Civil Rights Commission	Jan. 28, 2020
“Best Company”, In-company venture operation evaluation	Korea Institute of Startup & Entrepreneurship Development	Mar. 4, 2020
Outstanding Public Institute, Management information integrated announcement	Ministry of Economy and Finance	Apr. 1, 2020
“Excellent” rating, Shared growth evaluation in 2019	Ministry of SMEs and Startups	Apr. 23, 2020
CDP Carbon Management Special Award 2019	CDP Korea	Apr. 28, 2020
In-company venture “e-CUPS”, Minister’s award for contributions in promoting in-company ventures in 2019	Ministry of SMEs and Startups Korea, Institute of Startup & Entrepreneurship Development	Apr. 29, 2020
“Grand Prize” in the 2020 Korean Frontier Innovation Awards	Korea Standards Association	Jun. 19, 2020
Service Excellence Award	Korea Service Management Society	Jun. 26, 2020
Award of Excellence, Honorary Industrial Supervisor Example-Setting Presentation Contest	Korea Safety and Health Agency	Jul. 6, 2020
Plaque of appreciation for contributions to preventing industrial accidents	Korea Safety and Health Agency	Jul. 9, 2020
Baroseum, Grand Prize for National CPR Contest for the General Public	Ulsan Fire Department	Jul. 22, 2020
12 presidential awards in the 46th National Quality Circle Contest	Korea Standards Association	Aug. 28, 2020
Grand Prize, Fourth Industrial Revolution Power Korea Contest	Association of Korean Journalists, National Assembly Fourth Industrial Revolution Forum	Sep. 15, 2020
Minister’s Medal for best Institute in the best HRD public sector	Ministry of Education (Korea HRD Association)	Sep. 21, 2020
Selected as 2020’s Best Green Company	Ministry of Environment	Sep. 22, 2020
Excellent Human Rights Management Company Certification	Korea Standards Association	Oct. 11, 2020
Grand Prize, Safety Management Awards	Global Management Committee	Oct. 27, 2020
Best Group, UN SDGBI (Sustainable Development Goal Business Index)	Association for Supporting SDGs for the UN (ASD)	Oct. 28, 2020
Grand Prize, 2020 Korea Sharing National Awards	Ministry of Health and Welfare	Nov. 5, 2020
Excellence Award in Public Institute Sector, National Energy Transition Outstanding Case Contest	Ministry of Health and Welfare, Korea Energy Information Culture Agency, MOTIE	Nov. 12, 2020
Hall of Fame as outstanding company in quality competitiveness, 46th National Quality Award	Korea Standards Association	Nov. 19, 2020
Grand Prize (strategic innovation sector), 2020 Institute Awards	Institute of Internal Auditors Korea	Nov. 24, 2020
C-Mark certification, 2020 Community Contribution Excellence Award	Ministry of Health and Welfare, Korea National Council on Social Welfare	Nov. 30, 2020
Winner of 2020 Edaily Job Committee Award	Presidential Committee on Jobs	Nov. 30, 2020
Best Company in Sustainability Reporting, Korea Management Awards	Korea Management Association (KMA)	Dec. 1, 2020
Gold Medal, 45th International Convention on Quality Control Circles	Bangladesh TQM Association (BSTQM)	Dec. 4, 2020
Gold Medal, Seoul International Invention Fair 2020	Korea Invention Promotion Association (KIPA)	Dec. 4, 2020
Commendation for Contribution, World-Class Product Award 2020	MOTIE	Dec. 9, 2020
Grand Prize, Korean Education Donation Award 2020	Korea Elementary School Principals Association (KESPA)	Dec. 18, 2020
“A Grade”, Company-wide Safety and Health Coexistence Cooperation Program	MOEL	Dec. 30, 2020

ENRICH THE WORLD WITH CLEAN ENERGY

EWP Sustainability Report 2021

Further information on this report and the PDF version can be found on EWP’s official website. For inquiries related to sustainable activities and achievements described in this report, reach us using the contact below.

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