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# ENRICH THE WORLD WITH CLEAN ENERGY

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EWP Sustainability Report 2022

 KOREA EAST-WEST POWER CO.,LTD.



 KOREA EAST-WEST POWER CO.,LTD.

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ABOUT THIS REPORT

This 16th sustainability report of East West Power exists to inform stakeholders of our sustainable management activities and performance and to showcase our commitment to transparency in management. The management activities in this report are classified under three categories: Environment, Society, and Governance (ESG).

Reporting Standards

This report has been written in accordance with the core options of the Global Reporting Initiative’s standards, following TCFD recommendations, SASB standards, ISO 26000, and the UN SDGs.

Reporting Boundaries

EWP’s domestic sites

Reporting Cycle

Yearly (previous report issued in October 2021)

Reporting Period

1st January 2021 ~ 31st December 2021  
(includes some activities from first half of 2022)

Report Validation

Third party independent assurance

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Enrich The World With Clean Energy





# Overview

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01 | CEO’s Message



EWP is proud to have been selected as the only winner of Grade S in the 2021 Public Institution Management Evaluation. Yet, we face many challenges, such as achieving ethical management, fulfilling our social responsibilities, meeting the goal of carbon neutrality by 2050, and overcoming the impacts of the global economic recession. We are doing our utmost to perform our social responsibilities through various partnership projects, practicing sustainable and ethical management with an innovative organizational culture, and meeting the demand for stable energy for the sake of the general public and the nation itself.

Energy Transition

The Korean government’s announcement of the 2050 Carbon Neutrality Scenarios has brought changes in EWP. We restructured our organization to strengthen the renewable energy industry and new energy business, and we opened regional centers to connect energy industries across the country. Furthermore, we are striving to respond to climate change with the development of eco-friendly technologies, such as hydrogen-mixed fuel combustion and CCUS (Carbon Capture, Utilization, and Storage).

Partnerships Promoting Coexistence

Coexistence is at the center of our pursuit of energy transition and energy efficiency. To achieve carbon neutrality and energy transition with partner companies, SMEs, and local residents, we are focusing on including them in developing technologies and creating a new value chain for renewable energy..

Sustainable Management

EWP continually endeavors to perfect sustainable management. Our innovation is based on a clear vision of where we are, what we must accomplish, where our strengths lie, and what we can improve upon. To that end, we introduced an employee BOD observation system for open BOD, internalized a company culture where corruption is unacceptable based on the Excellent Human Rights Management Company Certification and an increased E-GWP corporate culture index, and made efforts to motivate our members to continue forward with the company.

EWP will expand new and renewable energy and create new energy business to lead the energy transition. Furthermore, we will continue to respond to risks in the environment, society, and governance by establishing and upgrading our strategy and system for ESG management. We will adress climate change with sustainable green development, realize social values, build an innovative management system, and grow alongside our stakeholders.

We pledge to become a trusted partner for the public and our stakeholders in return for their unwavering interest and support.  
Thank you.

President & CEO of EWP  
Kim, Young-Moon

김영문



## 02 | About EWP

Korea East-West Power (EWP) became an independent company as a subsidiary of the Korea Power Corporation (KEPCO) following the Korean government's Act on Promoting the Restructuring of the Electric Power Industry in 2001. With our vision of becoming a leading company in the energy transition, we strive to provide reliable, affordable, and eco-friendly energy to our customers.

## Company Overview

|                        |  |                             |                           |
|------------------------|--|-----------------------------|---------------------------|
| Date of Establishment  | April 2, 2001  | Composition of Stakeholders | 100% shares held by KEPCO |
| 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)  | Power Generation            | 44,045 GWh                |
| Main Business          | Electric power resource development and generation   | Electric Power Sales        | KRW 4,153.8 billion       |
| Headquarters           | 395, Jongga-ro, Jung-gu, Ulsan, Republic of Korea  | Power Sales Profit          | KRW 4,574.3 billion       |
| Governing Agency       | Ministry of Trade, Industry and Energy (MOTIE)   | Total Capital               | KRW 4,732.7 billion       |
| President              | Kim, Young-Moon  | Total Asset                 | KRW 9,895.7 billion       |
| No. of Employees       | 2,503  | Operating Profit            | KRW 68.9 billion          |
| Legal Status           | Market-type public enterprise, non-listed corporation  | Net Profit                  | KRW 10.9 billion          |
| Domestic Business Site | 9(Dangjin Power Complex, Ulsan Power Complex, Donghae Power Complex, Ilsan Power Complex, Umseoung Green Energy Construction Complex, Honam New Construction Promotion Complex, Renewable Energy Development Regional Center, Institute of Future Convergence Technologies, Technical Expertise Research Center) |                             |                           |

## History

**July 1961**

Established Korea Electric Power Co., Ltd. by integrating three companies (Gyeongseong Electricity, Joseon Electricity, and Namseon Electricity)

1982

Launched Korea Electric  
Power Corporation (KEPCO)

1982

1961

2000 ~

- |             |   |
|-------------|---|
| <b>2001</b> | Separated from KEPCO as a subsidiary power generation company   |
| <b>2002</b> | Completed construction of Sancheong Power Units 1 and 2   |
| <b>2003</b> | Issued KRW 20 billion worth of yen-denominated bonds at a very low interest rate (1.33%)                                    |
| <b>2004</b> | Introduced Six Sigma  |
| <b>2005</b> | Won first place at the Korea BSC Awards   |
| <b>2006</b> | Completed construction of Dangjin Power Units 5 and 6   |
| <b>2007</b> | Acquired ISO 9001/14001   |
| <b>2008</b> | Won the contract to commission Nueva Ventanas Power Plant in Chile<br>Completed construction of Dangjin Power Units 7 and 8 |
| <b>2009</b> | Proclaimed 2012 EWP Vision<br>Signed the contract for the operation of the Cebu CFBC Power Plant                            |

2010 ~

2020 ~

- 2010** Acquired biomass power generation facilities in the US
- 2011** Completed construction of a 30 MW Diesel Power Plant in Haiti  
Celebrated our tenth anniversary  
Acquired 40% ownership of Jamaican Public Service  
Proclaimed the "EWP New Vision for 2020"  
Supplied 11.1% (8,815.1 MW) of domestic electricity
- 2012** Awarded the grand prize in the eco-friendly sector by the UN Global Compact
- 2013** Won the grand prize in the green technology sector at the Korea New Growth Management Awards  
Carried out overseas projects in seven countries
- 2014** Relocated our headquarters to Ulsan Innovation Town Implemented a smart office  
Certified as an excellent company in climate change competitiveness by the Ministry of Trade, Industry and Energy
- 2015** Won the Carbon Disclosure Project (CDP) Special Award for two consecutive years  
Maintained a first grade in anti-corruption policy evaluation for three consecutive years
- 2016** Ranked first on the Climate Change Competitiveness Index in the generation  
Achieved the highest net profits in our company's history (KRW 467.5 billion)
- 2017** Participated voluntarily in CDP for five consecutive years and won a special award  
Completed construction of Dangjin Power Units 9 and 10
- 2018** Achieved the lowest construction accident rate among public companies
- 2019** Won the special award at the 9th Grand Leaders Award on Climate Change  
Completed construction of the largest wind farm in the West Coast region

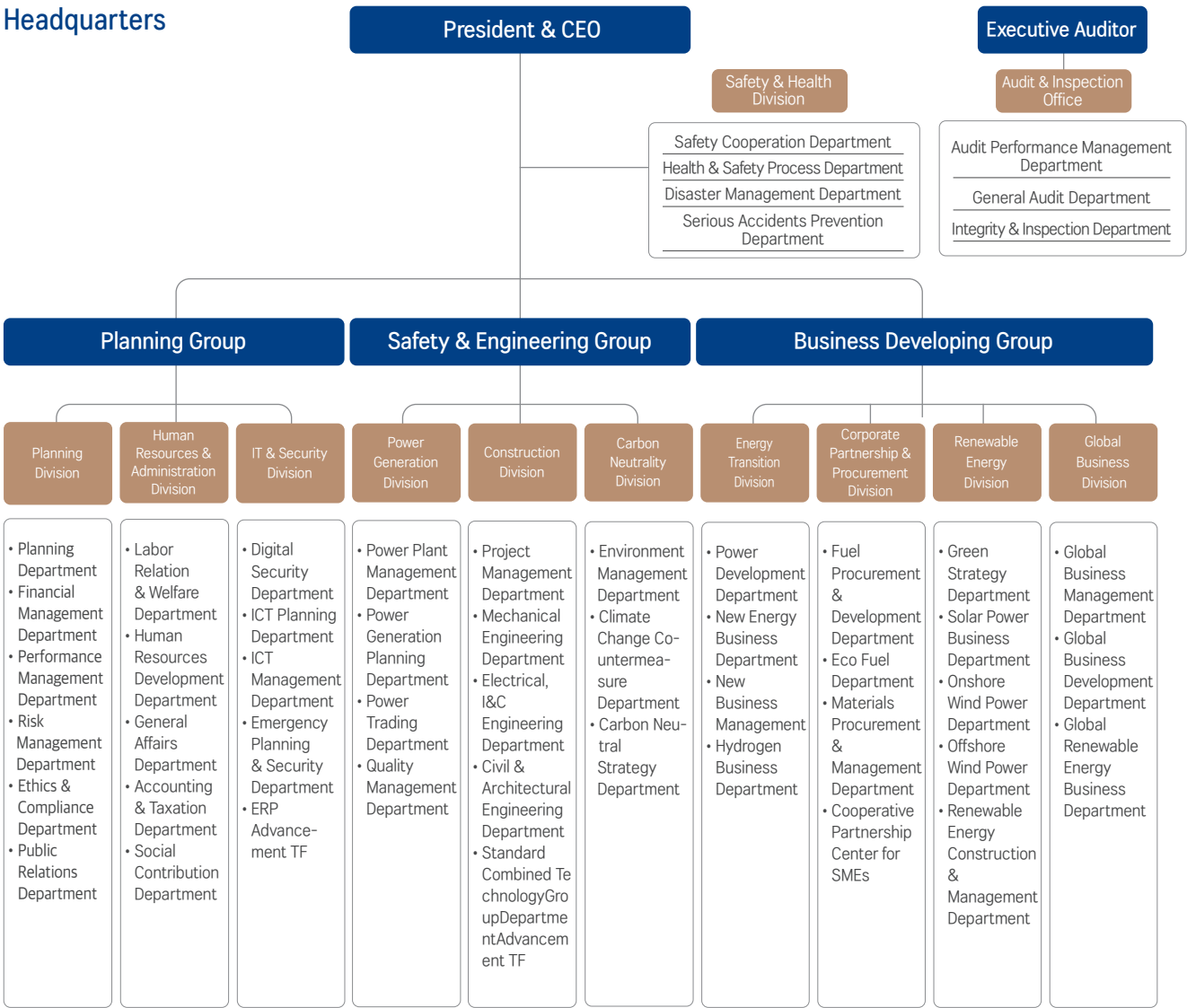




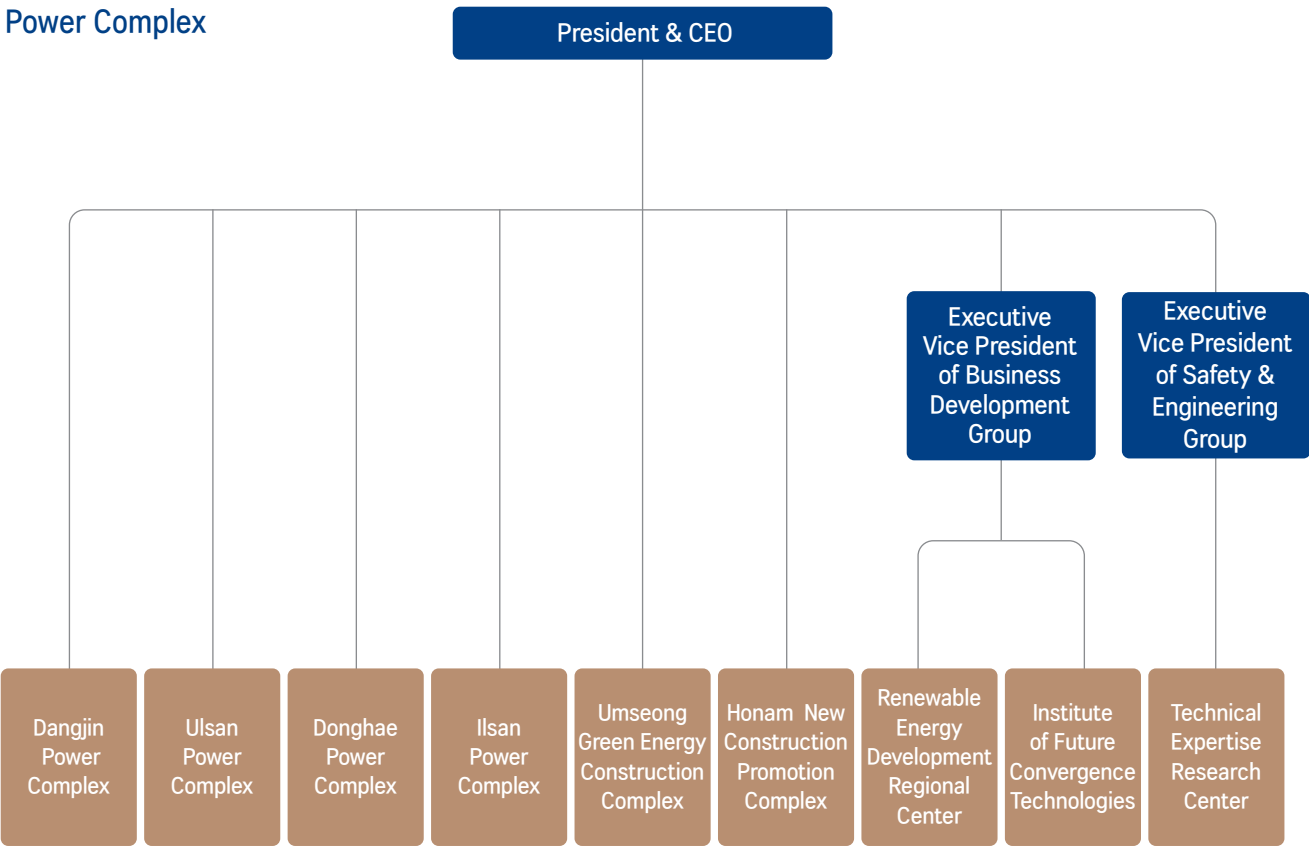
Organizational Chart (as of June 28, 2022)

(2022.06.28 기준)

Headquarters



Power Complex





# 03 | Business Portfolio

## Domestic Projects

### Ilsan Power Complex



|                   |       |                  |                        |
|-------------------|-------|------------------|------------------------|
| Facility Capacity | 900MW | Location         | Goyang-si, Gyeonggi-do |
| Main Fuel         | LNG   | Power Generation | 1,227GWh(2021)         |

**Ilsan Power Complex was built to offer a stable supply of electricity and heat to the metropolitan area**

Equipped with a 900 MW facility capacity, it generates high quality electricity and heat. In an effort to share benefits with the local community, our sports and cultural centers are open to the public.

### Donghae Power Complex



|                   |                                 |                  |                        |
|-------------------|---------------------------------|------------------|------------------------|
| Facility Capacity | 400MW                           | Location         | Donghae-si, Gangwon-do |
| Main Fuel         | Anthracite (domestic, imported) | Power Generation | 1,854GWh(2021)         |

**Donghae Power Complex is the world's largest fluidized bed power plant using anthracite combustion.**

Circulating fluidized bed combustion (CFBC) is a highly efficient, eco-friendly power facility to reduce the emissions such as nitrogen oxide (NOx) and sulfur oxide (SOx). This system works by injecting bed-media into the combustion boiler.

### Dangjin Power Complex



|                   |                 |                  |                               |
|-------------------|-----------------|------------------|-------------------------------|
| Facility Capacity | 6,040MW         | Location         | Dangjin-si, Chungcheongnam-do |
| Main Fuel         | Bituminous coal | Power Generation | 29,006GWh(2021)               |

**Dangjin Power Complex is EWP's most advanced power plant designed with the environment first in mind.**

Composed of ten power units with a total capacity of 6,040 MW, it is an outstanding green power plant that reduces air pollutants and increases plant efficiency.

### Ulsan Power Complex



|                   |         |                  |                  |
|-------------------|---------|------------------|------------------|
| Facility Capacity | 2,072MW | Location         | Nam-gu, Ulsan-si |
| Main Fuel         | LNG     | Power Generation | 7,174GWh(2021)   |

**Ulsan Power Complex supplies electric power to Ulsan Metropolitan City, a hub for green industry.**

Using LNG as its main fuel, it secures a stable supply of electricity by promptly responding to the demands of the region's grid. It also contributes to national economic growth by providing the electricity needed for neighboring regions including Ulsan Industrial Complex.

### Eumseong Green Energy Construction Complex



|                   |             |                  |                                |
|-------------------|-------------|------------------|--------------------------------|
| Facility Capacity | 561MW×2unit | Location         | Umseong-gun, Chungcheongbuk-do |
| Main Fuel         | LNG         | Power Generation | -                              |

**EWP's 1,000MW class LNG combined power plant to start construction in 2022**

We completed the environmental impact assessment(Apr. 2021) of the power generation facility(1,122MW) and the small-scale environmental Impact assessment(Jun. 2022) of the power transmission line(154kV). Environmatal conservation measures were prepared to lay the foundation for eco-friendly power plant construction.

### Honam New Construction Promotion Complex



|                   |                        |                  |                        |
|-------------------|------------------------|------------------|------------------------|
| Facility Capacity | 15MW                   | Location         | Yeosu-si, Jeollanam-do |
| Main Fuel         | Fuel cell, Solar power | Power Generation | -                      |

Honam New Construction Complex, currently under construction, is a 1,000 MW capacity LNG combined cycle power plant designed with new and renewable energy facilities. Honam Power Plant has contributed to the stable supply of electricity to the Yeosu Industrial Complex for a half century and is now transforming into an eco-friendly power complex with fuel cells and solar power generation.





## Overseas Projects

EWP was the first Korean power company to operate in the US market, and since then, we have continuously proved our competitiveness in overseas power generation markets. We opened an office in Vietnam and established corporations in Indonesia, the U.S., and Guam. In 2019, we won the bid for the Guam Ukudu Gas-Combined Power Plant project together with KEPCO, which is currently under construction.

 **In Operation:** 5 projects in 4 countries  **Under Construction:** 2 projects in 2 countries

 **Under Development:** 3 projects in 3 countries

As of May 31, 2022



### Facilities in Operation

| Projects                                      | Capacity | Period       |
|---|----------|--------------|
| Jamaica Public Service Co., Ltd., Jamaica     | 336 MW   | 2011~Present |
| Gas-Combined Power Plant, Jamaica             | 194 MW   | 2011~Present |
| US EWP RC Operation (Natural Gas Power Plant) | 94 MW    | 2011~Present |
| Indonesia Kalsel-1 Coal-Fired Power Plant     | 200 MW   | 2019~2044    |
| Distributed Solar Power, Chile                | 40.5 MW  | 2020~2045    |

### Facilities under Construction

| Projects                           | Capacity | Period  |
|------------------------------------|----------|---|
| Columboola Photovoltaic, Australia | 202 MW   | Nov. 2022~Nov. 2055<br>(35 years post construction)   |
| Gas-Combined Power Plant, Guam     | 198 MW   | Sept. 2024~Sept. 2049<br>(25 years post construction) |

### Projects under Development

| Projects  | Capacity | Period                     |
|---|----------|----------------------------|
| U.S. California ESS Project                         | 1725 MW  | 20 years post construction |
| South Sulawesi Madong Hydropower Project, Indonesia | 16 MW    | 20 years post construction |
| Jamaica Gas-Combined Project                        | 171 MW   | 25 years post construction |

## New and Renewable Energy

### A Leading Company for 2030 Future Energy Industry

In an effort to proactively mitigate climate change and the changing landscape of the electric power industry, EWP is committed to supporting the growth of Korea's new and renewable energy market and broadening the infrastructure for the industry. We faithfully fulfill our responsibilities as a public energy provider with a mandate to satisfy RPS. We are also exerting all efforts to establish a roadmap for creating new growth engines to secure a new and renewable energy supply up to approximately 5,000 MW by 2030. With this clear vision, EWP will become a leading player in the future energy industry.

#### What is RPS?

Renewable Portfolio Standard (RPS) is a regulation that mandates a certain portion of total electricity comes from renewable sources.

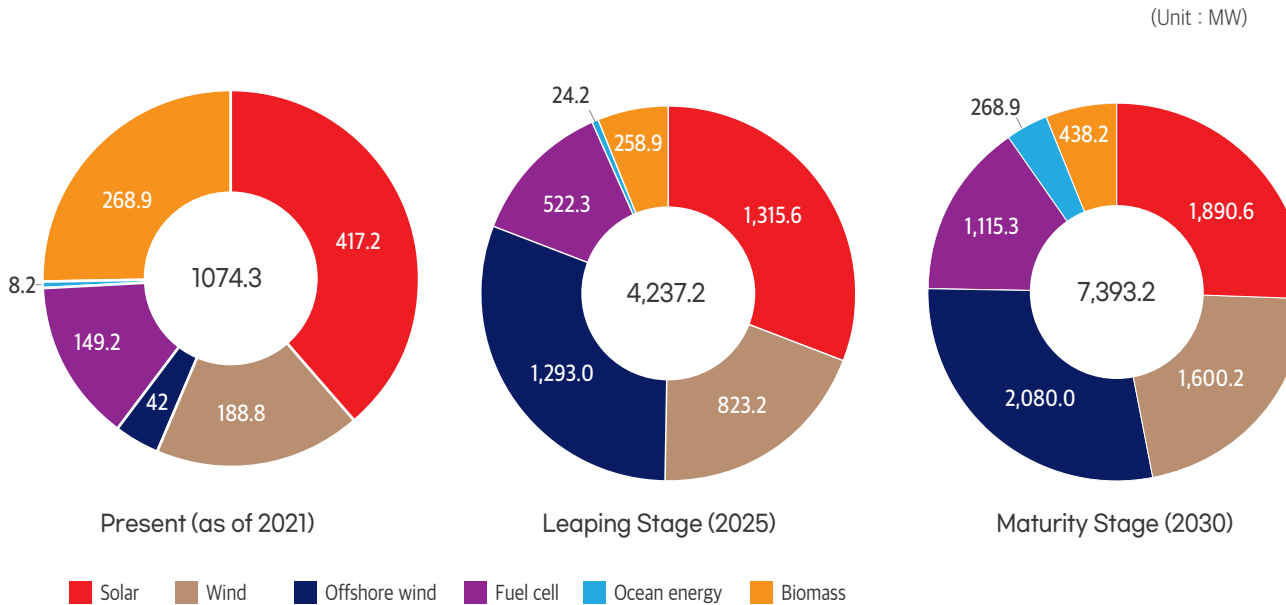
Obligators: Electricity generation companies with a facility capacity of 500 MW or more

Obligation Rate: Gradually increasing from 2 to 10 percent between 2012 and 2024

### Implementation Strategies

- Develop new and renewable energy sources as a core business sector to create future growth engines
- Optimize business portfolios for new and renewable energy and diversify energy sources
- Focus on select projects taking into consideration feasibility, availability, and affordability
- Secure and deploy technologies for energy efficiency in compliance with national policies for new and renewable energy industries
- Create new business models to resolve conflicts with neighboring communities

### EWP's Master Plan for New and Renewable Energy Mix





The Operational Status of EWP’s New and Renewable Energy Business

Solar Power



Daeho-ho Lake Floating Solar Farm Complex

Daeho-ho Lake Floating Solar Farm, with a 98 MW facility currently under construction, will be the largest capacity solar farm in Korea. Receiving project approval from the Seosan City government in 2021, construction began in May 2022 and will be completed by the end of 2023.

Solar Farms in Operation

EWP produces electricity from solar farms located in facilities around the country. The total generation capacity of the facilities in the following locations is 417.2 MW: Donghae Power Plant (1 MW), Yeosu Gwangyang Port Industrial Complex (2.3 MW), Honam Thermal Power Plant (0.1 MW), Suwon Wastewater Treatment Facility (1.5 MW), Busan Sinho Lake (20 MW), Ulsan 4 Combined-cycle Power Plant (0.5 MW), Dangjin Power Plant Ash Treatment Facility 1 (25 MW) and Facility 2 (3.5 MW), Dangjin Eco Solar Farm (9.8 MW), and Ansan Hospital Health & Welfare Solar Farm (0.1 MW).



Donghae Power Plant  
1 MW



Dangjin Solar Farm  
1 MW



Honam Thermal Power Plant  
0.1 MW



Ulsan Solar Farm  
0.5 MW



Dangjin Landfill Solar Farm  
1.3 MW



Yeosu Gwangyang Port  
2.3 MW



Busan Sinho Lake  
1 MW



Dangjin Storage Rooftop  
0.67 MW



Dangjin Floating Solar Farm  
1 MW



Suwon Wastewater Treatment  
Facility 1.5 MW



Gwangyang Port Solar  
1 MW



Ulsan 4 Combined-cycle Power  
Plant 0.5 MW



Donghae Wastewater Treatment  
Facility 2.4 MW



Dangjin Power Plant Ash Pond  
23.5 MW



Dangjin Power Plant Ash Pond  
12.5 MW



Ansan Hospital Health & Welfare  
Solar Farm 0.1 MW

Wind Power



Korea’s First Wind Power Project with Citizen Participation, Taebak Gadoksan Wind Farm

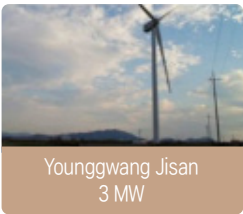
Taebak Gadoksan Wind Farm, located in Gangwon-do Province, is acclaimed as the nation’s first wind power project with successful involvement from local residents, ensuring energy welfare and community acceptance. As a part of Korea’s Green New Deal project, this farm was constructed with domestically manufactured equipment and materials from the second stage construction.

Wind Farms in Operation

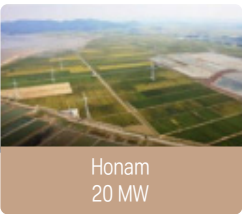
EWP’s total wind power generation capacity is 230 MW from the following farms: Gyeongju Wind Farm 1 (16.8 MW, 2012) and Farm 2 (20.7 MW, 2017), Jisan (3 MW, 2012), Honam (20 MW, 2014), Yonggwang Baeksu (40 MW, 2015), Yeonggwang (45.1 MW, 2018), and Yeonggwang Offshore Wind Farm (34.5 MW, 2018).



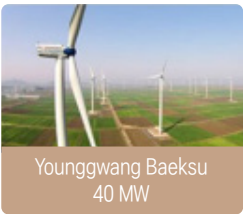
Gyeongju 1  
16.8 MW



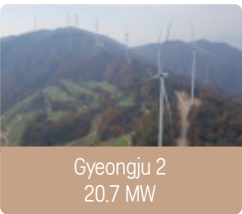
Younggwang Jisan  
3 MW



Honam  
20 MW



Younggwang Baeksu  
40 MW



Gyeongju 2  
20.7 MW

Other Rnewble Energy Business

Other Sources in Operation



Fuel Cell: 149.2 MW

Fuel cell power is a technology that convert chemical energy of H<sub>2</sub> from LNG and O<sub>2</sub> into electricity through a pair of redox reactions. We operate fuel cell power facilities totalling 149.2 MW including Ulsan (2.8 MW), Daesan (50.2 MW), Paju (8.1 MW), and Donghae (15 MW).



Small-hydro: 8.2 MW

The small-hydro power facility in our Dangjin plant utilizes sea water from Dangjin Coal-fired Power Complex. The construction of the facility with a total capacity of 8.2 MW was completed in two stages in 2009 (5 MW) and in 2014 (3.2 MW).



Biomass: 68.9 MW

The Donghae biomass power plant (30 MW) and Sukmoon plant (38.9 MW) collectively produce 68.9 MW of electricity.



New Energy Business

New Energy Business

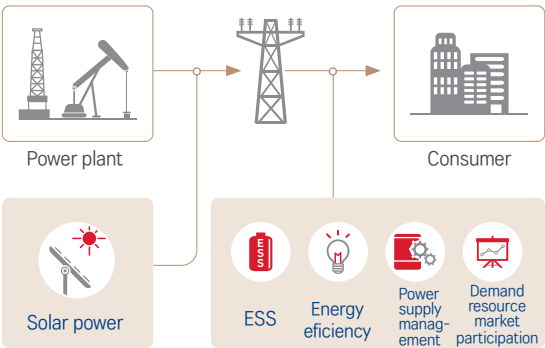
EWP is taking the lead in addressing major energy-related issues, such as the response to carbon neutrality, future energy development, energy security, and demand management, while establishing an ecosystem for new energy projects.

Supply Project for Rooftop Solar Power Systems in Industrial Complexes

EWP conducts solar power generation and small-scale power-brokering projects using plant rooftops and unused land in industrial areas. Profits from this business are shared with partners.

Energy Efficiency Business

The energy efficiency business is a project that analyzes electricity consumption patterns to find the most efficient solutions for public institutions and schools. Through this business, we are able to reduce electricity demand and save on energy costs.



Residential Virtual Power Plant (VPP)

VPP is a project to install solar panels on rooftops provided by residents and cooperatives, and integrate them into a single power plant using information and communication technologies. We aim to contribute to community welfare through increasing the renewable energy supply.

Power Brokering Business

E-max, EWP's power-brokering business brand, enables power providers to participate in the power brokerage market and provides real-time facility monitoring with artificial intelligence for predicting the amount of power generated by domestic solar and wind farms of less than 20 MW.

Energy Storage System Management Service Provider (ESS MSP)

EWP developed the nation's first energy cost reduction model, ESS MSP. Through ESS MSP, we analyze the energy demand patterns of energy-intensive companies and provide optimal ESS installation and operation. This business model allows our customers to save energy and benefit from reduced energy costs.





## Future Technology

### Future Technology Strategy

|                     |   |   |   |
|---------------------|---|---|---|
| Objective           | R&D and demonstration projects utilizing new and renewable energy technologies as well as Fourth Industrial Revolution technology   |   |   |
| Strategic direction | Developing new and renewable energy technologies  | Realizing on-site, on-demand technologies | Strengthening internal and external cooperation |
| Organization        | Technology development responsibility system for each of the 7 sectors, such as solar and hydrogen  |   |   |
| Role                | <ul style="list-style-type: none"> <li>Developing new technologies and supporting domestic SMEs for the energy transition and the improvement of energy</li> <li>Efficiency Developing new technologies in renewable energy, the new energy business, and the I-4.0 sector</li> </ul> |   |   |

### Fostering PDs for Each Sector

|                          |   |
|--------------------------|---|
| Solar power              | <ul style="list-style-type: none"> <li>Alternative sites for PV systems (agrivoltaic PV, building integrated PV, and solar pavement)</li> <li>Planning research projects to pioneer new PV markets (providing a soundproof wall-integrated type)</li> </ul> |
| Wind power               | <ul style="list-style-type: none"> <li>Finding equipment for localization, and developing and demonstrating an operational status diagnostic system</li> <li>Improving the performance of onshore and offshore wind power generators</li> </ul>             |
| Hydrogen and ammonia     | <ul style="list-style-type: none"> <li>Hydrogen gas turbines, P2G, and hydrogen engines</li> <li>Ammonia and fuel cell</li> </ul>   |
| CCUS                     | <ul style="list-style-type: none"> <li>Localizing CCUS and equipment</li> </ul>   |
| Ocean energy             | <ul style="list-style-type: none"> <li>Localizing ocean energy generation, ESS, and equipment, and developing and demonstrating an operational status diagnostic system</li> </ul>  |
| Data science             | <ul style="list-style-type: none"> <li>AI, big data (collection, processing, and analysis), and blockchain</li> <li>Advancing a wind power forecasting system</li> <li>Digital twin, 3D printing/scanning, AR/VR, metaverse</li> </ul>                      |
| Internet of things (IoT) | <ul style="list-style-type: none"> <li>IoT, mobile, cloud</li> <li>Robot, drone</li> </ul>  |

### Developing Technologies for Renewable Energy and New Energy Business

#### • Renewable energy

Solar pavement panel



Maximizing energy production with piezoelectric technology

Film solar panel (Perovskite solar cell)



Adhesive solar film for outer walls and windows

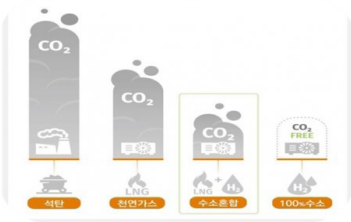
Solar panel fence



Securing a stable supply of power through the usage of a fence-based agrivoltaic system


#### • New energy business

Hydrogen-mixed gas turbine




Reducing CO<sub>2</sub> emissions via hydrogen co-firing technology

P2G (Power to Gas)



Producing zero-carbon green hydrogen and utilizing methanation technology

Ammonia combustion technology



Reducing CO<sub>2</sub> emissions via optimized ammonia combustion technology

#### • I-4.0

Solar panel cleaning robot



Cleaning solar panel surfaces to increase energy yield

Wind turbine inspection drone



Utilizing self-flying drones for visual inspection of offshore wind turbines to improve maintenance reliability

Big data for renewable energy output prediction



Securing system stability and responding to output volatility

#### • R&D Performance

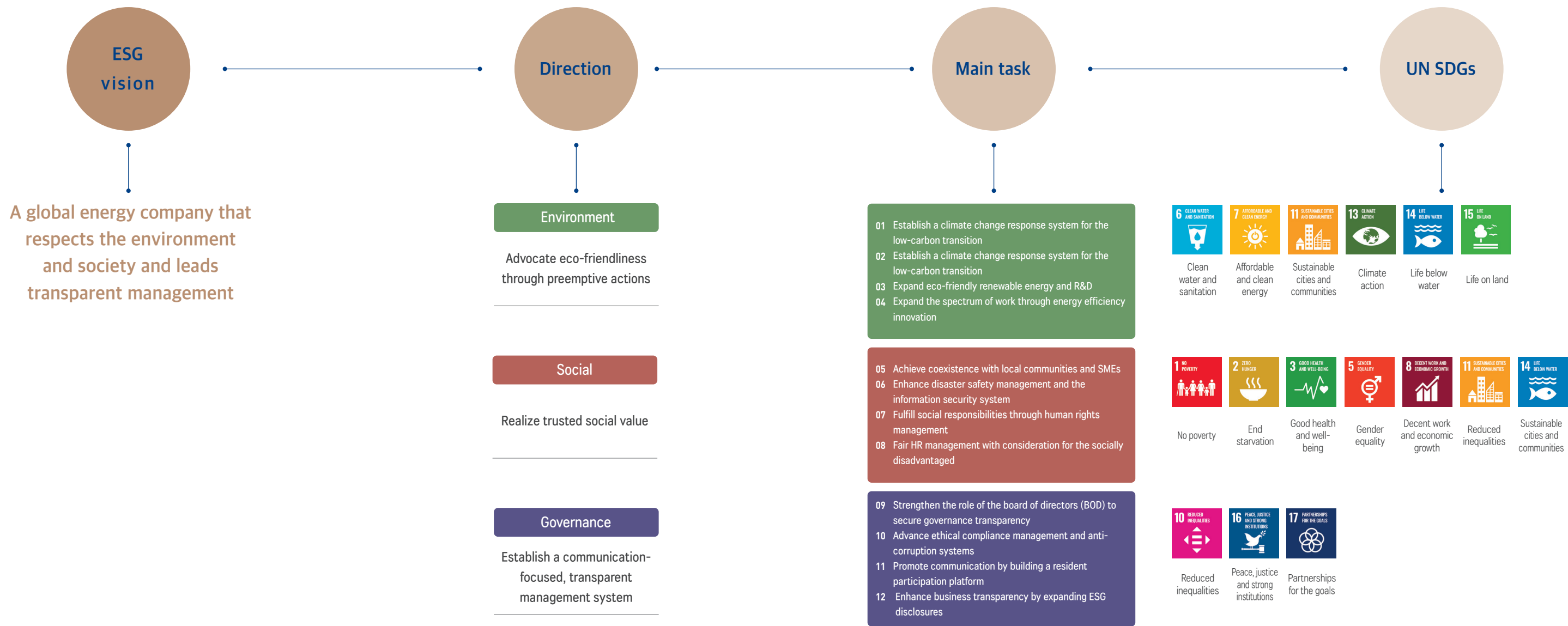
| Fields           | Tasks   | Contents   |
|------------------|---|--|
| Renewable energy | Agrivoltaic system for maintaining agricultural yieldability                                      | <ul style="list-style-type: none"> <li>Block-type solar modules using eco-friendly concrete</li> <li>Agrivoltaic system for maintaining agricultural yieldability</li> <li>Domestic yawing system with improved performance for large wind turbines of 4 MW or more</li> <li>Domestic predictive analysis system for the structural behavior and rotational failures of wind turbines</li> </ul>                                       |
| New business     | Electricity and hydrogen production system using the CO <sub>2</sub> from power plant exhaust gas | <ul style="list-style-type: none"> <li>Source technology for building ESS pilot facilities using seawater batteries</li> <li>Materials and process technologies for ultra- long-life lithium secondary cells for long duration ESS</li> <li>Optimal algorithm for charging and discharging ESS and EMS technology</li> <li>Electricity and hydrogen production system using the CO<sub>2</sub> from power plant exhaust gas</li> </ul> |
| I-4.0            | Location tracking system for workers in confined spaces   | <ul style="list-style-type: none"> <li>Location tracking system for workers in confined spaces</li> <li>Safety index management system</li> <li>PV module health monitoring system using self-flying drones</li> <li>Renewable Energy Monitoring Service (REMS) for solar and wind power</li> </ul>  |



# 04 | ESG Strategy

## ESG Strategy

As a public enterprise, EWP incorporates the values of environment, society, and governance (ESG) into all corporate activities and has established diverse and systematic ESG management systems while fulfilling our social responsibilities. With the vision of becoming a global energy market leader that respects the environment and society with transparent management, we have set 12 key tasks. We also organized a control tower named the ESG Committee within the Board of Directors, the highest decision-making body. Furthermore, we intend to contribute to the sustainable development of the international community as well as monitoring mid-term to long-term goals and accomplishments in line with the UN SDGs.

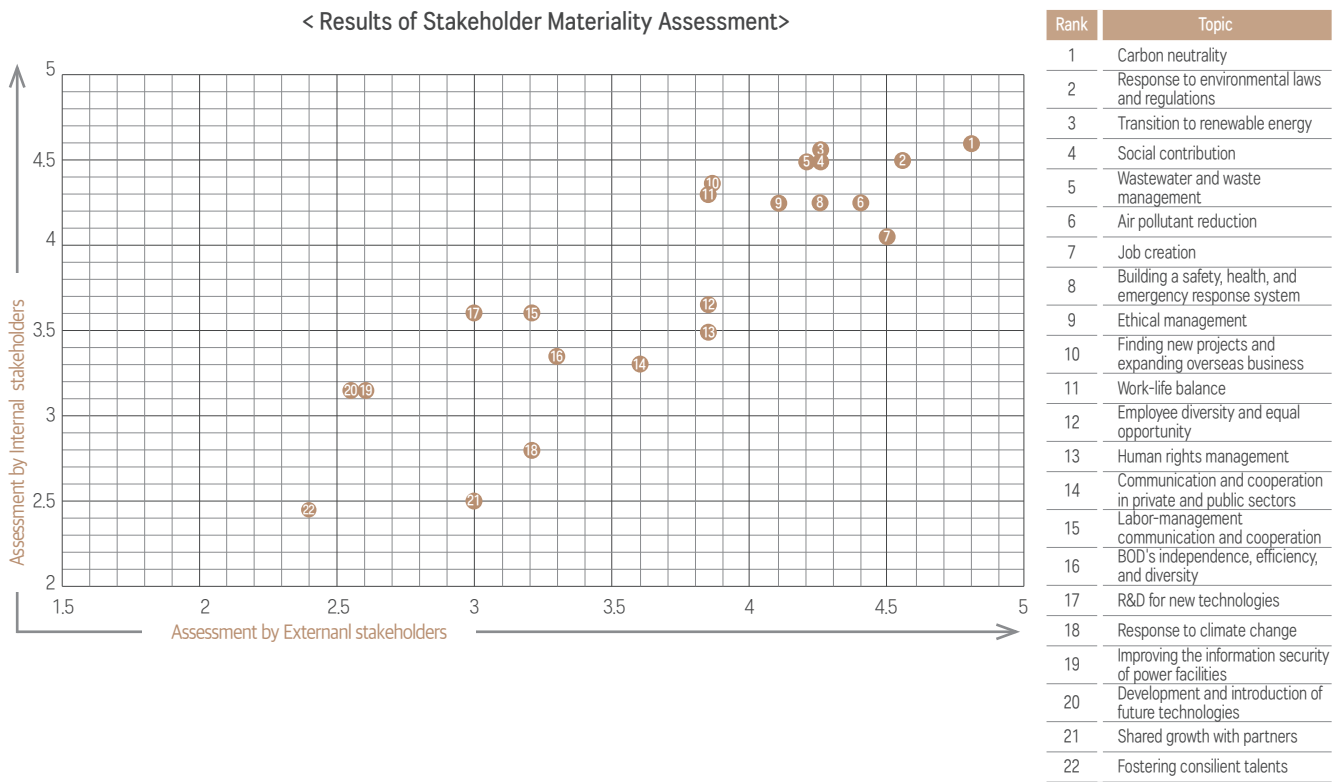




# 05 | Materiality Assessment

EWP prioritizes sustainable management topics based on feedback from stakeholders. For the 2022 materiality assessment, ESG topics were selected through media analysis, benchmarking, and a survey of internal and external stakeholders. This sustainability report details EWP's activities and accomplishments related to the topics.

## Materiality Assessment Process



## ESG Priority Rank

| Rank | Rank of previous year | Category | Topic   | Page  |
|------|-----------------------|----------|---|-------|
| 1    | New                   | E        | Carbon neutrality   | 44~47 |
| 2    | 3                     | E        | Response to environmental laws and regulations              | 32~34 |
| 3    | 4                     | E        | Transition to renewable energy                              | 15~17 |
| 4    | 19                    | S        | Social contribution   | 56~59 |
| 5    | 8                     | E        | Wastewater and waste management                             | 38~40 |
| 6    | 2                     | E        | Air pollutant reduction                                     | 35~37 |
| 7    | 22                    | S        | Job creation  | 60    |
| 8    | 5                     | S        | Building a safety, health, and emergency response system    | 52~54 |
| 9    | 6                     | G        | Ethical management  | 74~77 |
| 10   | 9                     | G        | Finding new projects and expanding overseas business        | 12~14 |
| 11   | 11                    | S        | Work-life balance   | 65    |
| 12   | 24                    | S        | Employee diversity and equal opportunity                    | 64    |
| 13   | 13                    | S        | Human rights management                                     | 62~67 |
| 14   | 21                    | S        | Communication and cooperation in private and public sectors | 78~79 |
| 15   | 17                    | S        | Labor-management communication and cooperation              | 73    |
| 16   | 23                    | G        | BOD's independence, efficiency, and diversity               | 68~72 |
| 17   | 12                    | G        | R&D for new technologies                                    | 18~19 |
| 18   | 1                     | E        | Response to climate change                                  | 42~43 |
| 19   | New                   | G        | Improving the information security of power facilities      | 55    |
| 20   | New                   | G        | Development and introduction of future technologies         | 20~21 |
| 21   | 20                    | S        | Shared growth with partners                                 | 30~31 |
| 22   | New                   | S        | Fostering consilient talents                                | 63    |



## 06 | Management Approach

### Environment

#### Material Topic 1. Carbon Neutrality

|      |         |                       |      |               |                   |
|------|---------|-----------------------|------|---------------|-------------------|
| Page | p.44~47 | Carbon Offset Credits | 100% | GHG Reduction | 6.69 million tons |
|------|---------|-----------------------|------|---------------|-------------------|

##### Sustainability Context

In 2022, extreme weather events are occurring more frequently around the world. Floods, droughts, heat waves, and cold waves are being exacerbated by climate change. Climate change has become a global topic of interest. Since the signing of the Paris Agreement in November 2016, the importance of carbon neutrality has come to the forefront with the global community's desire to limit the rise in temperatures to less than 1.5°C. The Korean government also declared the goal of carbon neutrality by 2050. Hence, stakeholders do not only demand corporations abide by the laws, but they also request their active participation in carbon-neutral management.

##### Management Approach

EWP established the 2050 EWP Carbon Neutrality Roadmap in order to take part in the climate actions set by the carbon neutrality policies of the Korean government and international agreements. As a state-owned power company, we are involved in multiple GHG reduction projects both domestically and abroad in order to achieve decarbonization, expand renewable energy, and foster new energy business. Domestically, we are developing eco-friendly hydrogen-mixed gas turbines using 100% Korean technology.

#### Material Topic 2. Response to Environmental Laws and Regulations / 5. Wastewater and Waste Management / 6. Atmospheric Pollutant Reduction

|      |                         |                     |                           |
|------|-------------------------|---------------------|---------------------------|
| Page | p.32~34 / 38~40 / 35~37 | Fine Dust Reduction | 46% lower than 2018 level |
|------|-------------------------|---------------------|---------------------------|

##### Sustainability Context

In 2021, the World Health Organization lowered the Air Quality Guideline Level for micro-fine dust (PM 2.5) from 10 $\mu$ g/m<sup>3</sup> to 5 $\mu$ g/m<sup>3</sup>. Restrictions were not only tightened for air pollution but also for waste treatment and chemical substances. Stricter monitoring and regulations along with heavy penalties for violations, making law-abiding management critical to a company's competitiveness.

##### Management Approach

EWP maintains stricter limits for air pollutants than legally required and continuously adds measures to reduce air pollutants, such as building indoor coal storage, reducing coal-fired generation, improving environmental facilities, and utilizing eco-friendly fuels. All waste materials are sorted into recyclables and non-recyclables with non-recyclable waste being properly treated by our own system or outsourced. Furthermore, our environmental risk management system prevents any environmental law violations.

#### Material Topic 3. Transition to Renewable Energy / 10. Finding New Projects and Expanding Overseas

|                           |                     |   |         |
|---------------------------|---------------------|---|---------|
| Page                      | p.15~17 / 14, 18~19 | Facility Capacity of New and Renewable Energy | 1,074MW |
| New Energy Business Sales | KRW 12.7 billion    |   |         |

##### Sustainability Context

With the successful implementation of the Renewable Portfolio Standard, a mandate for electricity generators with a total capacity of 500 MW or more to produce a certain rate of new and renewable energy, the Korean government introduced the Clean Hydrogen Portfolio Standards (CHPS). According to the 2050 Carbon Neutrality Scenarios, the government plans to significantly reduce fossil fuel generation and expand renewable energy.

##### Management Approach

We established EWP's New Deal Plus Strategy to optimize our goal of increasing the renewable generation rate to 30% by 2035 and 40% by 2040 and for securing a future growth engine. Despite its environmental-friendliness, renewable energy still requires a high production cost and a large investment. Hence, EWP is actively engaged in the energy paradigm shift through R&D projects with consideration to the environmentality, economics, and technicality of supplying stable and affordable electricity to the country.

### Society

#### Material Topic 4. Social Contribution / 7. Job Creation

|      |                 |                                   |              |                          |                 |
|------|-----------------|-----------------------------------|--------------|--------------------------|-----------------|
| Page | p.56~59 / 60~61 | Total Hours of Employee Volunteer | 53,175 hours | Total Amount of Donation | KRW 5.9 billion |
|------|-----------------|-----------------------------------|--------------|--------------------------|-----------------|

##### Sustainability Context

The emergence of ESG management highlights corporate activities not only for profit generation and legal compliance but also for ethical and beneficent responsibilities. In particular, the philanthropic activities of public companies can boost the local economy through win-win partnerships and facilitate coexistence and sharing, especially with those in need amid the COVID-19 pandemic.

##### Management Approach

As a state-owned company, it is important for EWP to support the local economy through win-win partnerships with SMEs and small businesses. Our social contribution activities focus on supporting local communities, youth, and socially vulnerable individuals. To aid those financially impacted by the prolonged pandemic, we gathered company resources and employee donations and held campaigns and events, including blood drives.

#### Material Topic 8. Building a Safety, Health, and Emergency Response System

|      |         |  |                               |
|------|---------|--|-------------------------------|
| Page | p.52~54 | Accident Fatality Rate per 10,000 people | Zero (five consecutive years) |
|------|---------|--|-------------------------------|

##### Sustainability Context

In 2022, the Serious Accidents Punishment Act went into effect, tightening a CEO's legal obligation to ensure the safety and health of company employees and prevent workplace fatalities.

##### Management Approach

EWP is strengthening our safety-first management system that puts people's life and safety first. To this end, we earnestly follow the Workplace Safety Measures and the Public Institute Safety Management Guideline imposed by the government on companies that fall under the ISO 45001 (Occupational Health and Safety Management System). We utilize Fourth Industrial Revolution technologies, such as AI and VR, to maximize our safety and health standards and minimize the risk of accidents. An intelligent integrated disaster management system is also used to monitor information regarding disasters including fires, earthquakes, and leaks of harmful chemicals.

### Governance

#### Material Topic 9. Ethical Management

|                                      |         |  |                        |
|--------------------------------------|---------|--|------------------------|
| Page                                 | p.74~77 | ACRC Anti-Corruption Initiative Assessment | Excellent for 10 years |
| Corruption from Conflict of Interest | 0 case  |  |                        |

##### Sustainability Context

In 2022, the government began enforcing the Act on the Prevention of Conflict of Interest Related to the Duties of Public Servants and now urges corporations to fulfill their ethical, legal, and economic responsibilities. The Corruption Perceptions Index (CPI), released by Transparency International, shows that Korea's CPI has shown the most rapid improvement among OECD countries, increasing the international community's interest in the ethical management of Korean companies and public institutions. In order to prevent and eradicate corruption in public contracts and public institutions, inspections have been further strengthened, demonstrating that the ethical management of public institutions is more important than ever.

##### Management Approach

EWP established our ethical management promotion system in 2022. In addition, we continually endeavor to improve our Comprehensive Integrity Level as evaluated by the Anti-Corruption and Civil Rights Commission. We formed a company-wide task force to improve our management system based on autonomy and trust and launched an online bulletin board, where executives and employees can actively communicate to find and solve issues. Furthermore, we provided the Administrative Affairs Guidebook to partner companies to inform them about the process for reporting corruption during contract procedures and requesting compensation for unjust losses. EWP's employees have held town meetings and participated in discussions related to integrity, and the CEO and management have declared a strong commitment to ethical and trustworthy management.



# Environment

01 | BP Creating Sustainable Value with Spent Mushroom Substrate Pellet Biofuel

02 | Environmental Management

03 | Response to Climate Change

04 | BP Supporting SMEs through GHG Reduction Projects

05 | Carbon Neutrality

Strategy Infographic (2021)

Establish a climate change response system for the low-carbon transition

Emissions trading system implementation **100 %**

Domestic and overseas GHG reduction:  
**6.7** million tons (compared to 2018)

Improve air quality through drastic fine dust reduction measures

Fine dust reduction rate: **46 %** (compared to 2018)

Fine dust reduction amount: **2,353** tons (compared to 2018)

Develop eco-friendly renewable energy and R&D

Increase in new facility capacity for renewable energy: **376** MW  
(Top public power company with core facility capacity of 797 MW)

Renewable energy R&D: KRW **5.6** billion

Expand the scope of our work area through innovations in energy efficiency

Accumulated ESS MSP project capacity  
**425** MWh

Annual energy reduction amount **8.5** GWh



# 01 | BP Creating Sustainable Value with Spent Mushroom Substrate Pellet Biofuel

In 2019, EWP was the first Korean company to succeed with combustion tests of spent mushroom substrate pellet biofuel, which is currently used for power generation at the Dangjin power plant. Mushroom pellets are made from spent mushroom substrate used to grow mushrooms. This is an eco-friendly method for mushroom farmers to treat spent substrate following harvests.

### Economic Context

Surging in oil prices worldwide has resulted in an increase in the price of all conventional fossil fuels. This trend affects the prices of petroleum, coal, LNG, and even hydrogen, which has been drawing attention as an eco-friendly fuel. Soaring prices are becoming a burden for the nation. Against this backdrop, mushroom substrate pellets offer an alternative with a higher thermal value and more competitive prices compared to existing biofuels.

### Environmental Context

The Wastes Control Act defines mushroom substrate as recyclable waste. Reusing organic waste to generate energy is an eco-friendly method to reduce GHG emissions and produce electricity.

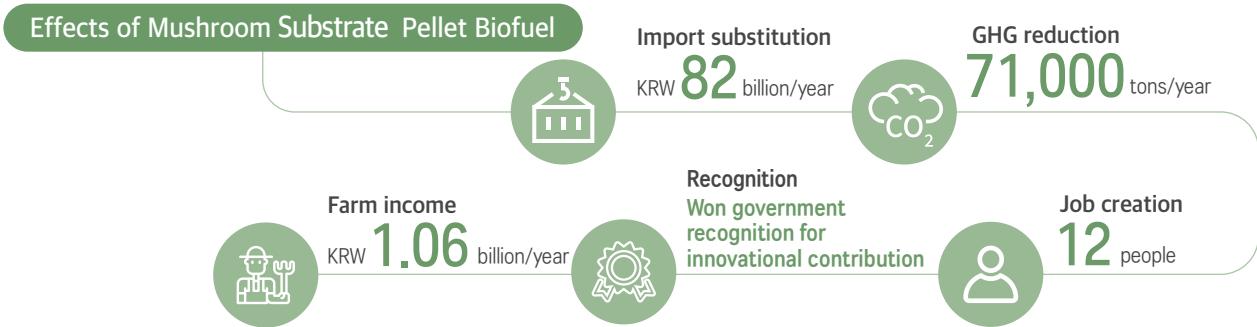
### Social Context

Mushroom substrate pellet biofuel acts to strengthen our win-win partnership with farmers and SMEs. Mushroom farmers and pellet manufacturers can participate in generating power for the nation, boosting rural economies and creating jobs while we fulfill our social responsibilities as a public company.

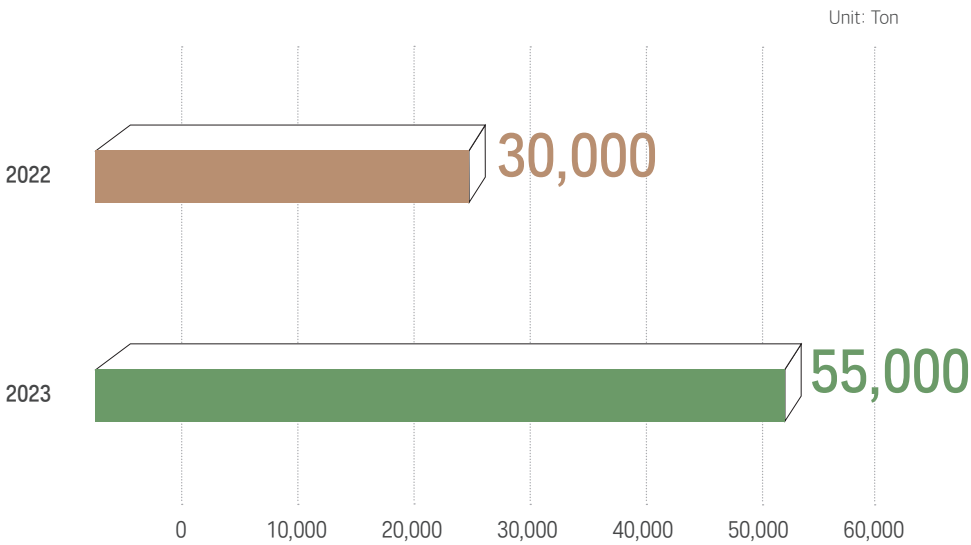
The upcycling of spent mushroom substrate is EWP’s contribution to the localization of biofuel when the majority of wooden pellets for mixed-fuel combustion are imported. Currently, we use 100% domestic biofuel in our power plants. We will continue to promote cooperation among the private, agricultural, and public sectors by securing a sustainable growth engine and achieving sustainable management and carbon neutrality.

Thank you.

Environment Management Department in Carbon Neutrality Division    **Bae, Jong-hong, Senior Manager**



### Mushroom Substrate Pellet Biofuel Demand Projection



| Project planning                              |  | + | Successful use in power generation  | > | Effect  |
|---|--|---|---|---|---|
| Company                                       | Farm   |   |   |   |   |
| Supply spent mushroom substrate <sup>1)</sup> | Secure stable supply (approx. 350,000 tons nationwide) |   | Mixed-fuel at Dangjin Power Complex(55,000 tons/year)<br>- Acquired facilities and licenses<br>- Sourced pellets from 16 farming corporations |   | *CO <sub>2</sub> reduction of 71,000 tons per year<br>*Additional income for farms (KRW 1.06 billion)<br>*Awarded by the government for innovational contribution |

1) Mushroom substrate : A mixture of organic residues such as sawdust and corn stalks used for growing mushrooms

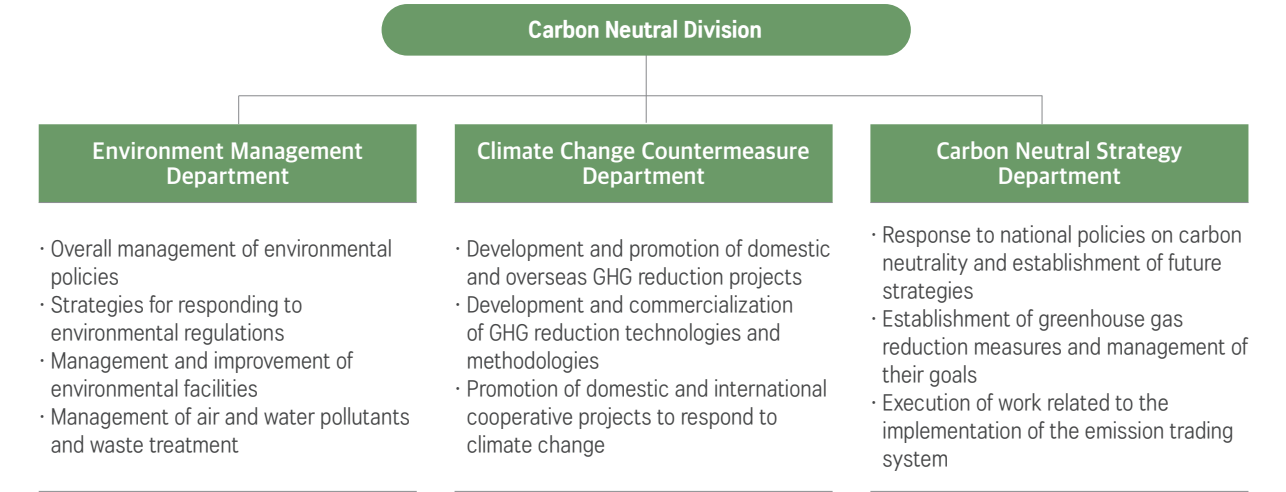
## 02 | Environmental Management

Under our vision of leading the energy transition, we have acquired the Environmental Management System (ISO 14001) certification to preemptively prepare for environmental regulations and meet the goals set for carbon neutrality and nationally determined contributions (NDCs). To oversee environmental management, we have established the Carbon Neutral Division consisting of the Environment Management Department, the Climate Change Countermeasure Department, and the Carbon Neutral Strategy Department.

### Environmental Management Promotion System

| Strategic direction | Clean Energy Production  | Shared Growth with Local Community  | Sustainable System Establishment  |
|---------------------|--|---|---|
| Strategic tasks     | <ul style="list-style-type: none"> <li>· Create clean air conditions</li> <li>· Promote strategic climate change countermeasures</li> <li>· Improve water quality and expand resource recycling</li> </ul> | <ul style="list-style-type: none"> <li>· Implement collaborative environmental observation with the local community</li> <li>· Communicate with stakeholders</li> <li>· Enhance social value</li> </ul> | <ul style="list-style-type: none"> <li>· Establish a comprehensive preventive management system</li> <li>· Lead development of environmental technology</li> <li>· Reinforce people-centered, environmental management</li> </ul> |

### Organizational Structure for Environmental Management



### Stipulation of Environmental Management Regulations

Based on the enactment and operation of environmental management regulations, we promote a systematic environmental management policy and aim to raise environmental awareness by informing our stakeholders of relevant laws and regulations. Our environmental policy contains information on environmental management activities (education and inspection) and environmental conservation activities (air conditions, water quality, and waste). Furthermore, we have disclosed these regulations both internally and externally to allow access to all interested parties.

### The Largest Number of Green Company Certifications

We hold the largest number of green company certifications among Korean power generation companies. In particular, EWP’s Ilsan Power Complex was awarded the 2020 Green Company Grand Prize in recognition of achievements including holding green company status for longer than any other Korean power generator (27 years), obtaining the first integrated environmental permit in Korea, and conducting social contribution activities with local communities. Furthermore, EWP’s Donghae Power Complex is Korea’s only coal-fired power plant to acquire a Green Company Certification after undergoing a strict review by the Ministry of Environment regarding environmental management in nine areas, including the establishment of a green management system and the reduction of pollutants.



#### What is a Green Company?

“Green Company” refers to companies and institutions which voluntarily establish an environmental management system and outstandingly implement and fulfill environmental policies. Recipients of Green Company Certification are reevaluated by the Ministry of Environment every three years.

### EWP’s History of Green Certifications

| Complex               | Date of Certification | Expiration Date |
|-----------------------|-----------------------|-----------------|
| Donghae Power Complex | Nov. 15, 2021         | Nov. 14, 2024   |
| Ulsan Power Complex   | Feb. 24, 2021         | Feb. 23, 2024   |
| Ilsan Power Complex   | Mar. 09, 1996         | July 26, 2024   |

### International Certification of Environmental Management System (ISO 14001)

EWP strives to reduce fuel consumption, minimize waste, and expand the development of renewable energy resources while establishing environmental goals for the construction and operation of eco-friendly power plants, environmental preservation, and improved power generation efficiency. These efforts have allowed our power plants to obtain the integrated certification of ISO 14001, an environmental management system. We have also been designated as a green company by the Ministry of Environment and established a solid foundation for an eco-friendly management system.



## Environmental Impact Assessment

We completed the first environmental impact assessment for power generation facilities on the new site (Eumseong Combined-cycle Power Plan) since the spin-off. We established an action plan by collecting opinions from various sectors (air conditions, water quality, noise, etc.) with the national and local governments over two years and nine months (August 2018 through April 2022). Through preparation and prompt response, we laid the foundation for the timely construction of the power plant.

### Consensus with the Local Community

The environmental impact assessment complied with legal procedures in deliberation, draft writing, and the finalizing of official letters and documents while conducting public disclosure for 60 days. We also heard local residents’ opinions through four briefing sessions and one public hearing. Through these efforts, we gained the support of the local community to carry out the construction on time.

Furthermore, for a small-scale environmental impact assessment for the transmission line construction project (154 kV), we collected extensive data on the effect of transmission towers on the ecosystem in target areas and cooperated with the Ministry of Environment. Through active preparation, the construction was approved with a slight adjustment of the tower spots.

### Details of Agreement

| Sector                             | Description  |
|------------------------------------|--|
| Natural and ecological environment | <ul style="list-style-type: none"><li>• Create wildlife passages (25 m) to connect habitats.</li><li>• Create habitats for wild animals in landscaped areas within the project area.</li></ul>   |
| Air environment                    | <ul style="list-style-type: none"><li>• Install the latest prevention equipment (low NOx burner and SCR).<ul style="list-style-type: none"><li>- Nitrogen oxide (NOx) less than 4 ppm/ammonia (NH<sub>3</sub>) less than 2 ppm</li></ul></li><li>• Install pollutant reduction facilities at the initial stage of the power plant startup.</li><li>• Install a 100-meter high stack.</li><li>• Install and operate a telemonitoring system (TMS) for flue gas emissions.</li><li>• Install hybrid cooling towers (wet/dry) and monitoring equipment for water vapor.</li></ul> |
| Water environment                  | <ul style="list-style-type: none"><li>• Install and operate sewage and wastewater treatment facilities.</li><li>• Install two reduction facilities for non-point pollution (device-type filtration facilities).</li></ul>  |
| Noise and vibration                | <ul style="list-style-type: none"><li>• Install main power generation facilities indoors and optimally arrange noise-generating facilities to reduce noise.</li><li>• Install soundproofing walls and silencers for cooling towers.</li></ul>  |
| Hazardous chemicals                | <ul style="list-style-type: none"><li>• Convert the reducing agent (ammonia water) in DeNOx facilities to a lower concentration (25→9%).</li></ul>   |
| Waste                              | <ul style="list-style-type: none"><li>• Store waste in a designated place until waste treatment is outsourced.</li></ul>   |
| Greenhouse gas                     | <ul style="list-style-type: none"><li>• Create green spaces as carbon sinks in business sites.</li></ul>   |

## Air Pollutant Reduction

### Environmental Facility Improvement Project

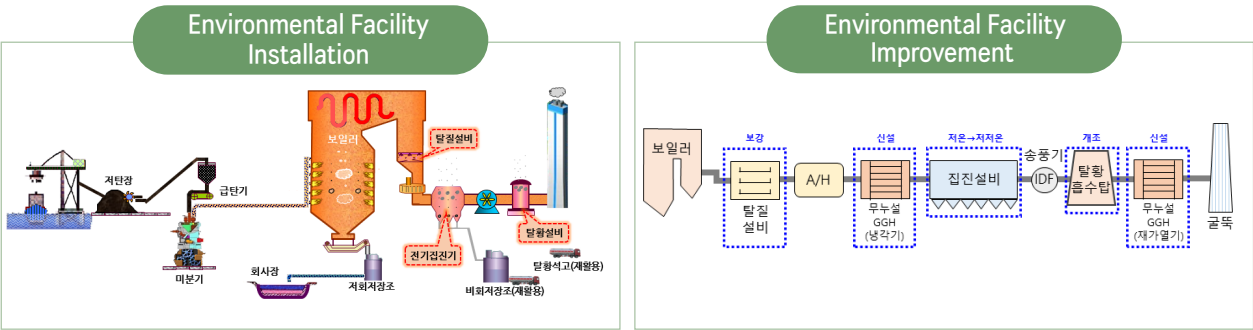
We are endeavoring to reduce air pollutant emissions by improving our power plants’ environmental facilities. We are continuously enhancing the gas desulfurizers, DeNOx systems, and electrostatic precipitators to reduce emissions and emission intensity of SOx, NOx, and dust.

### Air Pollutant Reduction Performance

| Year | Emission (ton) |       |      | Emission Intensity(g/MWh) |     |      |
|------|----------------|-------|------|---------------------------|-----|------|
|      | SOx            | NOx   | Dust | SOx                       | NOx | Dust |
| 2019 | 7,813          | 9,724 | 509  | 155                       | 193 | 10   |
| 2020 | 6,620          | 6,796 | 411  | 147                       | 150 | 9    |
| 2021 | 6,164          | 5,632 | 369  | 142                       | 129 | 9    |

### Environmental Facility Upgrades for Performance Improvement

Through a series of upgrades beginning this year, we have remodeled the internal structure of the absorption towers and expanded the denitrification catalysts. We plan to apply non-leakage type gas-gas heaters (GGHs) and low-low temperature electrostatic precipitators. With improvements in the environmental facilities at our Dangjin power plant and Donghae power plant, we expect to reduce fine dust by 1,110 tons per year by 2026.



## 2035 Mid- to Long-Term Fine Dust Reduction Plan

We have established a mid-term to long-term management strategy leading up to 2035 and adjusted the fine dust reduction target in line with the Ninth National Basic Plan for Power Supply and Demand as well as the Nationally Determined Contributions (NDCs).

### Mid- to Long-Term Fine Dust Reduction Plan

[Target] PM2.5 reduction by 85% and emission intensity by 80% by 2035  
(compared to 2018).

Set fine dust reduction target 1.8 times higher than previous government target (up from 1.5 times higher)

| Strategy | 1. Improvement & Operation of Air Environmental Facilities   | 2. Conversion to Eco-friendly Facilities   | 3. Development of Next-generation Reduction Technology  |
|----------|--|--|---|
| Projects | <div>① Improve environmental facilities related to coal power plant performance</div> <div>② Reduce pollutants from LNG combined power plants</div> <div>③ Enhance performance management for environmental facilities</div> | <div>① Close aging thermal power plants</div> <div>② Build and convert to LNG combined power plants</div> <div>③ Conduct R&amp;D for LNG combined power plants</div> | <div>① Remove pollutants in the early stages of operating LNG combined power plants</div> <div>② Develop ammonia removal technology for denitrification</div> <div>③ Develop particle coarsening technology</div> |

### Fine Dust Reduction Plan (compared to 2018)

| Plan     | Reduction Rate             | Reduction Amount         |
|----------|----------------------------|--------------------------|
| Previous | 68% by 2030                | 3,538 tons               |
| New      | 75% by 2030<br>85% by 2035 | 3,876 tons<br>4,393 tons |

### Fine Dust Reduction Performance (compared to 2018)

| Category | Reduction Rate | Emission (tons) |
|----------|----------------|-----------------|
| 2018     | -              | 5,168           |
| 2019     | 26%            | 3,799           |
| 2020     | 40%            | 3,092           |
| 2021     | 46%            | 2,815           |


### Expected Benefits

- ◆ Set an ambitious emission reduction target that is 1.8 times lower than the level set by the government's comprehensive fine dust measures (previously 1.5 times).
- ◆ Increase the fine dust reduction rate by 10% from the previous plan (reduction of 68%→75% by 2030).
- ◆ Shorten the period to meet the previous target by four years (reduction of 68% by 2030→2026).
- ◆ Mitigate fine dust emission intensity 80% through facility improvement and the expansion of new and renewable energy sources.

## Indoor Coal Storage

EWP has proceeded to install indoor coal storage for Unit 1 through Unit 8 at the Dangjin Power Complex to preserve the atmospheric environment and reduce scattering dust. Starting with a preliminary feasibility study in 2017, we established a basic plan for the installation in 2020 before signing the contract and beginning construction in 2021. Construction will conclude in 2024. With a coal storage capacity of 470,000 tons, the completion of this facility will contribute to meeting the 2030 Nationally Determined Contributions (NDCs), decrease scattering coal dust, and create social value equivalent to KRW 80 billion.

### Overview

| Category            | Description                       | Aerial View  |
|---------------------|-----------------------------------|--|
| Designed capacity   | 470,000 tons                      |  |
| Investment          | KRW ~162.7 billion                |  |
| Construction period | Jun. 2021 - Dec. 2024 (43 months) |  |

### Creation of Social Value

| Category  | Description   | Amount (KRW 100 million/year) |
|---|---|-------------------------------|
| ① Installation of rooftop solar panels (6.8 MW)             | • Provide social benefits through decentralized power generation.                 | 3.48                          |
|   | • Reduce emission of pollutants through renewable energy generation.              | 3.37                          |
| ② Reduction of damage to agricultural yield                 | • Damage to agricultural yield in Seokmun-myeon (neighborhood)                    | 4.47                          |
|   | • Damage to areas within 10 kilometers of the Dangjin Power Complex               | 2.7                           |
| ③ Loss saving by the reduction of low-rank coal degradation |   | 47.8                          |
| Subtotal  | KRW 6.182 billion × 12 years<br>(operating period of indoor coal storage)         | KRW 74.2 billion              |
| ④ Indirect contribution to the economy                      | • Employment induction and job creation   | KRW 2.15 billion              |
|   | • Estimated taxes payable related to the indoor coal storage construction project | KRW 3.47 billion              |
| Total   |   | KRW 79.8 billion              |



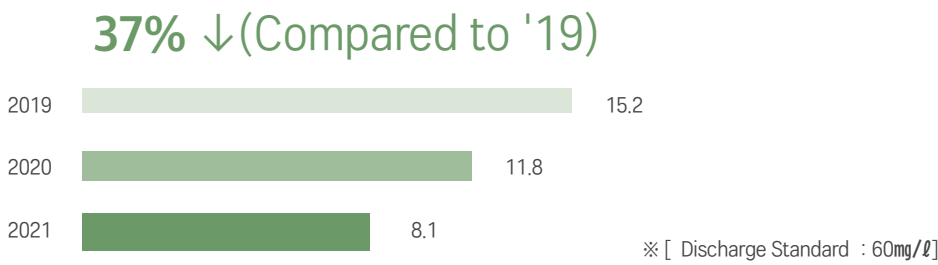
Water Quality Management and Waste Recycling

Current Status of Water Quality Management

EWP strictly monitors the quality and pollutant levels of wastewater from our plants. In 2021, we installed a desulfurization wastewater treatment facility equipped with advanced oxidation technology at the Dangjin Power Complex and reduced the high nitrogen concentration found in the water pollutants.

| Year | Discharge (ton) |    |    |      | Discharge concentration(mg/ℓ) |      |      |     |
|------|-----------------|----|----|------|-------------------------------|------|------|-----|
|      | COD             | SS | TN | TP   | COD                           | SS   | TN   | TP  |
| 2019 | 7               | 6  | 15 | 0.04 | 5.4                           | 14.2 | 11.5 | 0.3 |
| 2020 | 7               | 6  | 18 | 0.06 | 5.3                           | 8.5  | 9.7  | 0.1 |
| 2021 | 7               | 4  | 16 | 0.04 | 3.5                           | 2.4  | 7.2  | 0.1 |

Dangjin Power Complex TN Discharge Concentration (unit:mg/ℓ)



Wastewater Recycling

We are committed to recycling water resources. Our joint research with private companies aims to recycle 70% of EWP plants’ wastewater using an advanced membrane wastewater treatment system. Also, we reuse treated wastewater in the desulfurization system and ash field sprinklers to reduce our industrial water consumption.

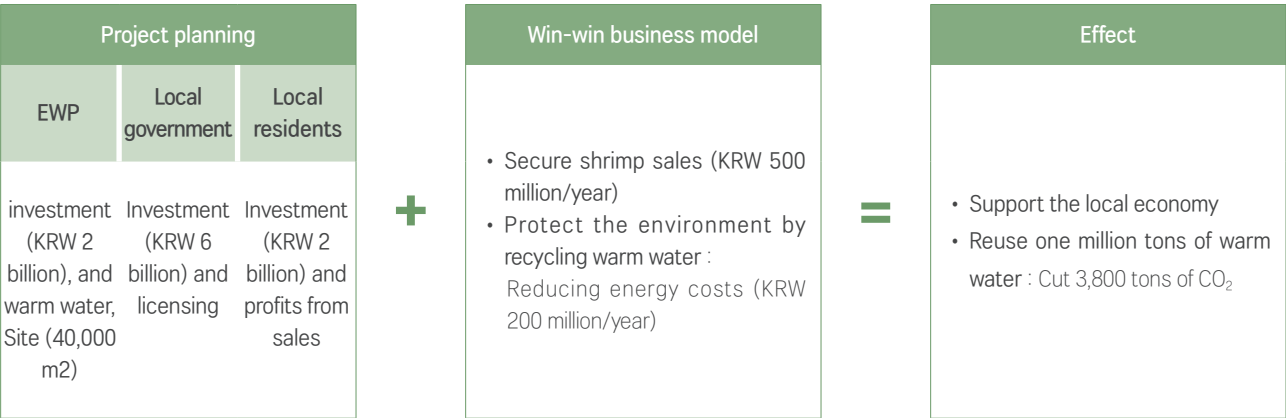
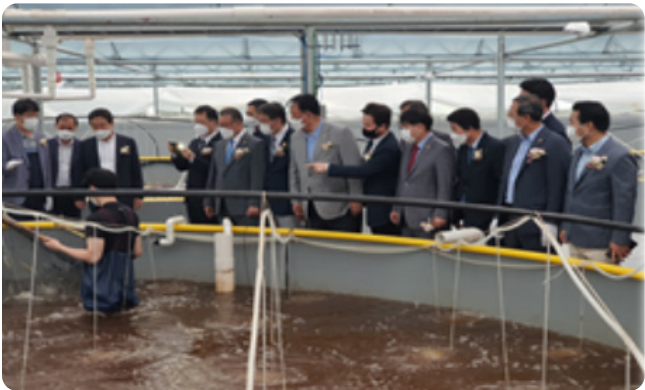
Water Use

| Type | Seawater intake (million tons) | Raw water (10,000 tons) | Wastewater generation (10,000 tons) |
|------|--------------------------------|-------------------------|-------------------------------------|
| 2019 | 6,315                          | 1,210                   | 368                                 |
| 2020 | 5,962                          | 1,279                   | 402                                 |
| 2021 | 6,500                          | 1,263                   | 350                                 |

Recycling Warm Water for a Shrimp Farm

Dangjin Power Complex supplies a shrimp farm with warm water from the power generation process. This win-win business model was selected as an “Environmentally Friendly Aquaculture Promotion Project” by the Ministry of Oceans and Fisheries in 2015 and was developed through discussions with local residents and specialized companies. With an investment of about KRW 10 billion, it takes up an area of 40,000 m2 in the plant’s ash treatment field

#1. The plant was awarded the Chungcheongnam-do Appreciation Plaque for its contribution to the local economy, environment protection, and cost reduction through the recycling of warm water.



Resource Recycling

EWP, a leading company in reusing resources, is the first in Korea to use mushroom substrate pellets as fuel for power generation. After combustion tests in 2019, we officially signed a contract in 2022 to use the biofuel for mixed combustion at the Dangjin Power Complex. This allows us to reduce imports of biofuels and contribute to GHG reduction and carbon neutrality. At the same time, mushroom farmers can dispose of spent substrate in an environmentally friendly way. Hence, this project will be acclaimed as an exemplary win-win business model.

Waste

Another goal of EWP is to contribute to environmental conservation by minimizing the amount of waste generated during operations and encouraging recycling. In particular, our power plants’ main wastes (coal ash and desulfurization gypsum) are currently reused in cement, drywall panels, and land filling.

Amount of waste: Reduction in waste generation and increase in the recycling rate for three consecutive years

| Category                | 2019      | 2020      | 2021      |
|-------------------------|-----------|-----------|-----------|
| General waste (tons)*   | 2,635,100 | 2,033,480 | 1,707,163 |
| Designated waste (tons) | 1,102     | 2,226     | 752       |
| Total waste (tons)      | 2,636,202 | 2,035,706 | 1,707,915 |
| Recycling (tons)        | 2,226,790 | 1,778,558 | 1,632,556 |
| Recycling rate (%)      | 84        | 87        | 96        |

\* Including construction waste

Recycling of Power Plant By-Products and Coal Ash

We participate in environmental conservation and the recycling of power plant by-products. Desulfurized gypsum is a by-product of the process of removing sulfur oxides from exhaust gas with limestone used as a reactant. Desulfurized gypsum is used as a raw material in drywall and as a cement set retardant. Coal ash refers to the three types of unburned ash (fly ash, bottom ash, and boiler slag) collected from the electrostatic precipitator and boiler bottom that is used in cement manufacturing and land filling.

Coal Ash Recycling for the Past Three Years

Over 95% of coal ash has been recycled over the last three years, which exceeds the national target of 90% presented in the Guidelines for Recycling of Steel Slag and Coal Ash Discharger.

|                           |          | (unit : 10,000 tons) |       |       |
|---------------------------|----------|----------------------|-------|-------|
| Category                  |          | 2019                 | 2020  | 2021  |
| Total amount              |          | 202.3                | 167.3 | 168.0 |
| Fly ash                   |          | 171.3                | 140.3 | 140.3 |
| Bottom ash                |          | 31.0                 | 27.0  | 27.7  |
| Recycled amount           |          | 227.7                | 176.6 | 160.5 |
| Fly ash                   | Dangjin  | 111.7                | 94.2  | 95.1  |
|                           | Honam    | 9.4                  | 7.5   | 6.9   |
|                           | Donghae  | 27.0                 | 21.4  | 16.7  |
|                           | Subtotal | 148.1                | 123.1 | 118.7 |
| Bottom ash<br>Boiler slag | Dangjin  | 61.0                 | 35.7  | 32.9  |
|                           | Honam    | -                    | -     | -     |
|                           | Donghae  | 18.6                 | 17.8  | 8.9   |
|                           | Subtotal | 79.6                 | 53.5  | 41.8  |
| Recycled rate (%)         |          | 112.6                | 105.6 | 95.5  |

Ecological Environmental Conservation

EWP has teamed up with local communities in various activities for ecological environmental conservation..

Beach-combing Day

In 2022, EWP held a Beach-combing Day to raise awareness of marine environmental protection and conservation by cleaning beaches with local residents and environmental advocacy groups.

※ Beach-combing: Various environmental preservation activities related to cleaning beaches by collecting trash, shells, and sea glass to recycle into arts and crafts

Collaborative Projects with NGOs and Public Enterprises for Ecological Preservation

EWP helps preserve a natural ecosystem through cooperation with local stakeholders to build social awareness across communities and promote the significance of environmental management.

| Project                                    | Collaborating party (Ulsan)                         | Development  | Effect   |
|--|---|--|--|
| U <sup>Ulsan</sup> -plogging <sup>1)</sup> | Education Office                                    | Online activities related to environmental cleanup | Students/citizens (798 persons)                                |
| Citizen Artwork Exposition                 | Environmental Movement Association                  | “No Plastic“ Exposition                            | Raised awareness of environmental preservation (1,503 persons) |
| Ecological Restoration                     | Activist group for restoring the firefly population | Repopulation and proliferation of fireflies        | Ecological restoration program (214 persons)                   |

<sup>1)</sup> U<sup>Ulsan</sup>-plogging: A word derived from the combination of “plocka upp” (Swedish for pick up) and “jogging” that describes a program encouraging Ulsan citizens and students to pick up trash while jogging

<Grand Prize at the 2021 Environmental Photo Exhibition (Cho Soo-bin, The Pebbles)>





## 03 | Response to Climate Change

EWP set mid-term to long-term carbon reduction strategies to pursue enhanced energy efficiency through win-win cooperation with SMEs

| Increase in energy efficiency projects (continuous)  | Waste heat recovery system project (new)   | Carbon offset forest (expanded)   |
|--|--|---|
| Smart air compressor project<br>- A total of 302 SMEs participated<br>- Provided power consumption pattern status<br>- Reduction of 173,000 tons of CO <sub>2</sub> (over ten years) | Saving fuel by installing heat exchangers<br>- Eleven SMEs and farmers participated<br>- Provided a help desk for equipment operation<br>- Reduction of 14,000 tons of CO <sub>2</sub> (over five years) | (Step1) Mixed burning of damaged trees (10,000 tons)<br>(Step2) Creation of a new forest (1 ha)<br>(Step3) Expansion of carbon offset forest<br>- Creation of forest paths for the Gangwon Forestry Exhibition (3.3 ha) |

### GHG Reduction Projects in Underdeveloped Countries

We continue to reduce global greenhouse gas emissions through the UN Clean Development Mechanism (CDM) projects in Africa.

| Country   | Project planning  | Development  | Effect   |
|---|---|--|--|
| Ghana<br>High-efficiency cook stove project     | Produce and provide cook stoves through collaboration with the Ghanaian government and NGOs | Completed supply of 230,000 units (target: 500,000 units)<br>Received UN approval for CER's (8,400 tons) | Reduce 660,000 tons of CO <sub>2</sub> for five years<br>Improve residents' quality of life      |
| Uganda<br>Water purification using solar energy | Improve drinking water in 2,000 schools with water purifiers produced by Korean SMEs        | Operated a pilot project in one school<br>Recycled solar panels from Donghae solar farm                  | Reduce 900,000 tons of CO <sub>2</sub> over six years<br>Reduce costs through resource recycling |

### CCUS Technology Development for Energy Transition

To achieve the national GHG reduction goal, we are steadily developing CCUS technology for LNG combined-cycle power plants.

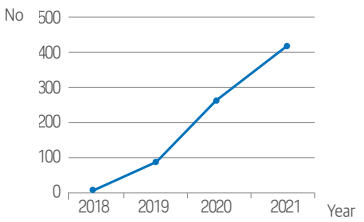
| Carbon capture technology trend  | The largest LNG CO <sub>2</sub> capture demonstration in Korea  | Effect   |
|--|---|--|
| <b>(Status)</b> Rely heavily on coal power generation<br><b>(Issue)</b> Decrease in utilization and effectiveness due to the reduction or closing of coal power plants | Selected as a demonstration project by the government (KRW 24.1 billion) with six institutions including KEPCO Research Institute<br>Pilot facility for Ulsan Combined-cycle Power Plant installed (ten tons/day) | Secure the basis for carbon capture of LNG power generation<br>- Carbon reduction of 500,000 tons/year<br>Contribute to achieving the national carbon reduction goal |

## 04 | BP Supporting SMEs through GHG Reduction Projects

### Climate Change

#### 1. Benefits

An increase in the number of businesses benefiting from EWP's GHG reduction projects  
12 companies in 2018 → **420 companies as of 2021**



- ▶ Improving energy efficiency in SMEs and securing carbon emission rights
- ▶ Supporting the local economy through SMEs and realizing social values

#### 2. Projects

##### A. Waste heat recovery system

Installed heat recovery systems for SMEs which waste high temperature steam to help cut back on energy costs and GHG emissions

Waste heat recovery : 2,013 Gcal/year  
 NG saving : 1.3 million m<sup>3</sup>/year  
 Energy savings: 690 million won/year  
 GHG reduction: 2,800 tCO<sub>2</sub>/yearEnergy

##### B. Monitoring system

Added monitoring systems to pre-existing air compressors on SME sites and continued to provide maintenance support

Energy savings: 37,657 MWh/year  
 Annual cost savings: 2.96 billion won/year

CO<sub>2</sub> emission factors for electricity: 0.45941 tCO<sub>2</sub>/MWh  
 GHG reduction: 17,300 tons/year

##### C. On-campus energy efficiency promotion

- Promoted on-campus energy efficiency projects, securing carbon credits for EWP and universities while saving energy

**14,000 tCO<sub>2</sub>/10 years** (Donggeui University alone)  
 Additional profits of KRW 420 million (assuming a carbon credit price of 30,000 won/ton)

##### D. Mentorship programs on environmental management for SMEs

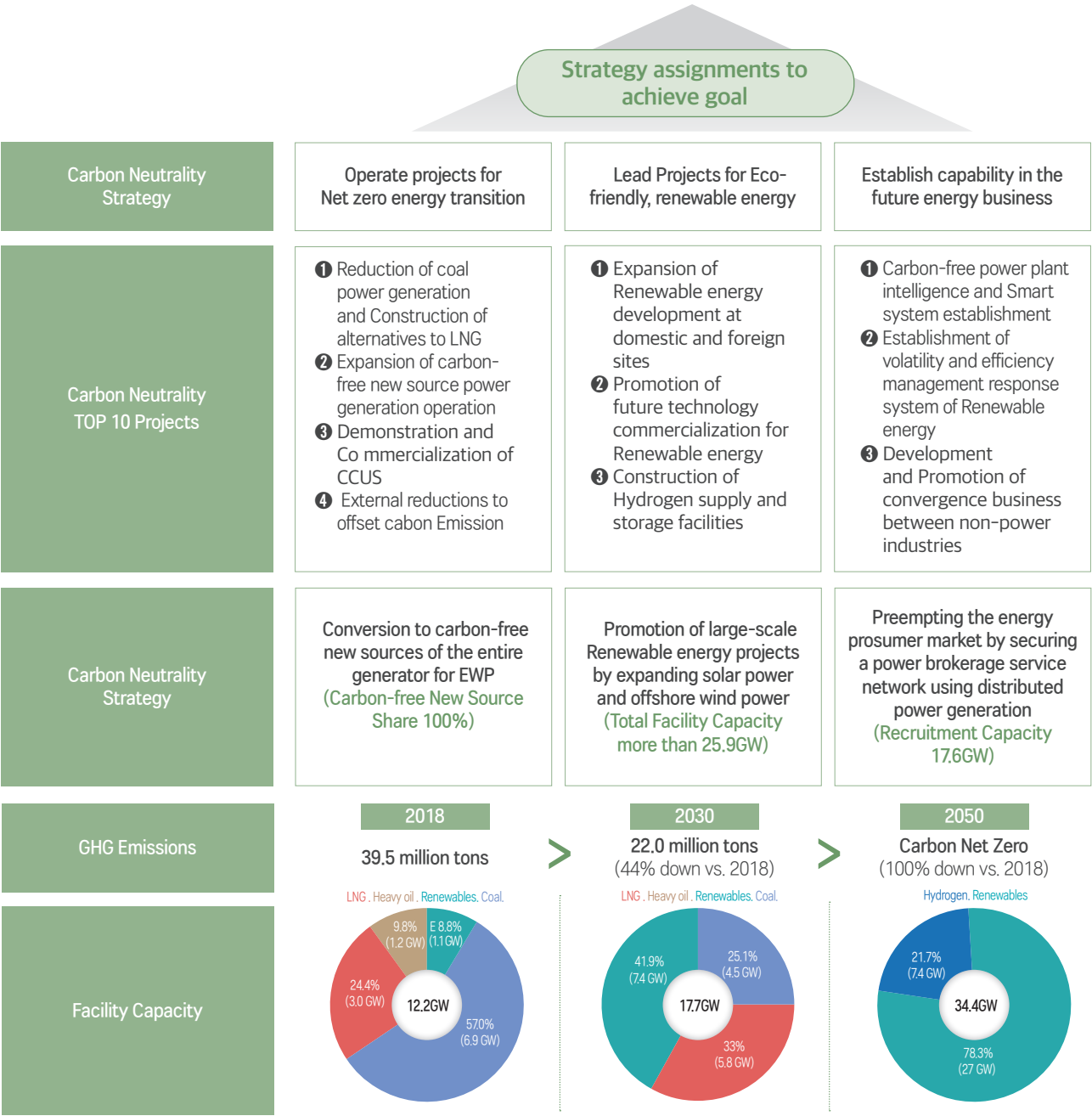
- Provided SMEs (in Ulsan and Eumseong) with technical support for improving operations and maintenance of environmental facilities in connection with government-led projects

05 | Carbon Neutrality

2050 Carbon Neutrality Strategies of the Republic of Korea (Net Zero)

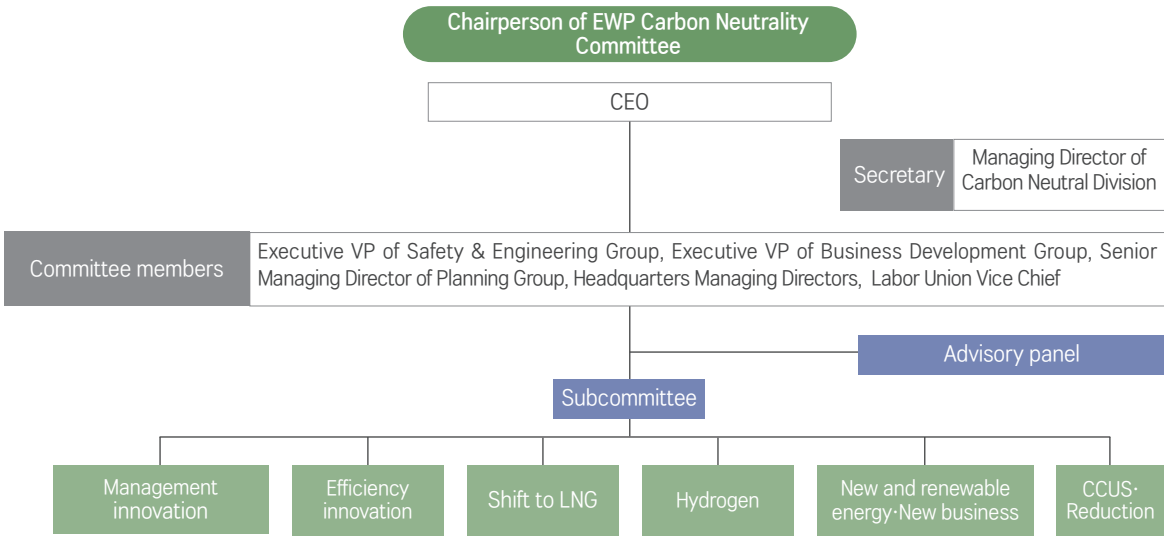
2050 Carbon Neutrality Strategy

|        |   |
|--------|---|
| Vision | Leap toward a Clean Energy Company  |
| Goal   | Reduce carbon emissions by 44.4% by 2030, and achieve net zero by 2050 with renewable energy sources accounting for more than 65% of electricity generation |



EWP Carbon Neutrality Committee

EWP launched a Carbon Neutrality Committee to lay a foundation for achieving carbon net zero by 2050. The committee made our dedications to carbon neutrality clear with a declaration ceremony for 2050 EWP Carbon Neutrality with the aim of EWP becoming a clean energy business. This declaration will ensure that all employees do their best to make EWP a clean energy business and achieve the 2050 carbon neutrality goal. In addition to this, labor and management promised to work tirelessly to achieve carbon reduction and demonstrate their efforts to society.





Carbon Neutrality Future Strategy Forum

EWP holds the Carbon Neutrality Future Strategy Forum every quarter to share carbon-neutral strategies. We developed the EWP Carbon Neutrality Advisory Panel including external experts who will add expertise to the committee and ensure a better response to government policies. The Future Strategy Forum is held to seek the panel's expertise and share information concerning the strategic directions of the major carbon neutral issues.



1<sup>st</sup> Carbon Neutrality Future Strategy Forum



2<sup>nd</sup> Carbon Neutrality Future Strategy Forum

EWP Carbon Neutrality 1.5°C

EWP has moved forward with the EWP Carbon Neutrality 1.5°C Project to strengthen our commitment by sharing information and ensuring communication concerning the government’s carbon-neutral policies and EWP’s implementation plans. We established programs not only to raise awareness of carbon neutrality among stakeholders but also to mount GHG reduction campaigns to make carbon neutrality a routine part of our lives and maintain commitment to major carbon neutral issues.

| Category                     | Project  | Remarks   |
|------------------------------|--|---|
| Commitment to Implementation | ① Carbon Neutrality Week<br>[April 22 (Earth Day)-April 28]                                  | ① Pledge to reduce one ton of GHG per person<br>② Environmental Book Concert<br>(Tyler Rasch’s “There is No Second Earth”)<br>③ Screening of movies featuring environmental issues<br>(“Albatross” and “Tomorrow”)<br>④ Pre-cycling agreement at an in-house café<br>(to encourage the use of reusable cups)<br>⑤ Seeking new ideas to promote carbon neutrality efforts  |
|                              | ② Carbon Net Zero Content Development<br>[Website on carbon neutrality]                      | ⑥ Release of monthly news cards featuring policy, information, and topical issues<br>⑦ Development of life practice guidebooks (a screensaver)<br>⑧ Video clips of EWP Carbon Neutrality Future Strategy Forum to be released quarterly   |
| Implementation Program       | ③ Carbon Reduction Campaign<br>[EWP Carbon Point System]<br>(Government Points + EWP Points) | ⑨ Class discussing carbon neutrality for future generations for employees’ children (July)<br>⑩ EWP 1.5°C Challenge (August, an app-based program)<br>⑪ Digital carbon footprint reduction (year-round, IT & Security Division)<br>⑫ Carbon Neutrality Day (the 15th of every month will focus attention on the goal of curbing global warming to 1.5°C)<br>⑬ Participation in MOE’s Carbon Neutral Practice Point (year-round) |

EWP Carbon Neutrality 1.5°C Campaigns



Environmental Book Concert



Movies featuring environmental issues



Pre-cycling agreement at an in-house café



Class disussig carbon neutrlity for future generations



# Social

01 | **BP** Power Plants Coexisting with Local Residents

02 | Safety and Health

03 | Information Security

04 | Social Contribution

05 | Job Creation

06 | **BP** Realizing Social Value by Creating Eco-Friendly Jobs

07 | Human Rights Management and HR System

08 | Happy Workplace

Promote communication by building a resident participation platform

Develop business models for sharing profits renewable energy profits to encourage resident participation

Establish a base for coexistence with local communities and SMEs

Amount spent on social contribution activities  
KRW **1.9** billion

“**Excellent**” rating in shared growth evaluation  
(10 consecutive years)

Enhance disaster safety management and the information security system

Industrial fatality rate per 10,000 employees for five consecutive years **0**‰

National Intelligence Service Information Security Status Evaluation **1st Place** among public enterprises/**Zero** security incidents

Fulfill social responsibilities through Human Rights Management

Excellent Human Rights Management Company Certification from the Korean Standards Association

Fair HR management with consideration for the socially disadvantaged

Rate of hires from socially marginalized groups  
People with disabilities **4.3%** / Patriots **9.2%**

Reinforcement of communication based on mutual respect and trust Establishment of corporate culture

E-GWP corporate culture index  
**83.7**<sup>(19)</sup> → **86**<sup>(21)</sup> points



# 01 | BP Power Plants Coexisting with Local Residents

## 1.Benefits

### A. Discovery of win-win models led by local communities

- Include local community members (municipalities, public enterprises, and local residents) in energy projects
- Contribute to a virtuous cycle of energy generation, consumption, and profit sharing in local communities

### B. Eco-friendly energy supply utilizing distributed networks of shared rooftops

- Mitigate environmental destruction and reckless development (socio-environmental benefit of saving KRW 1.6 billion over 20 years)
- Allow for a stable supply of green energy using small-scale PV resources via the power brokerage business (carbon emission reduction of 16,030 tons over 20 years)

### C. Operation of integrated power plants based on generation estimates and power brokerage (new energy business)

- Promote a “power brokerage business” that combines EWP’s distributed power supply and independent prediction technologies
- Aim to operate integrated power plants utilizing distributed energy to overcome limitations such as fluctuations in renewable energy output

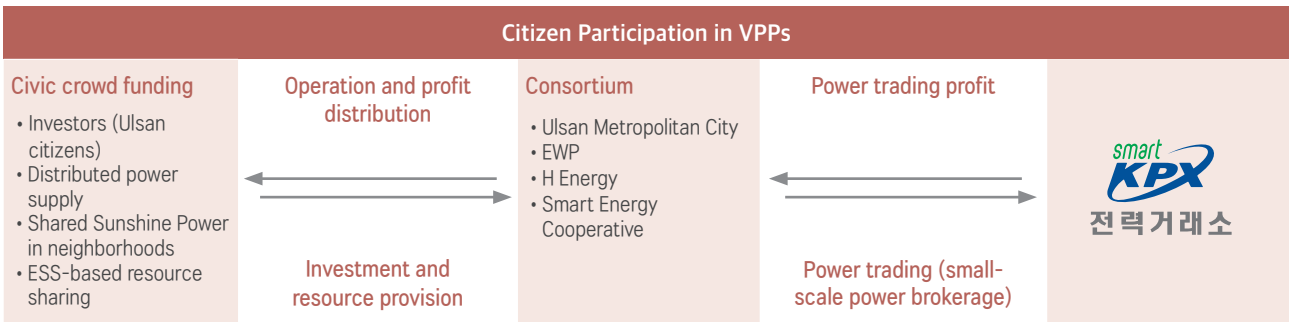
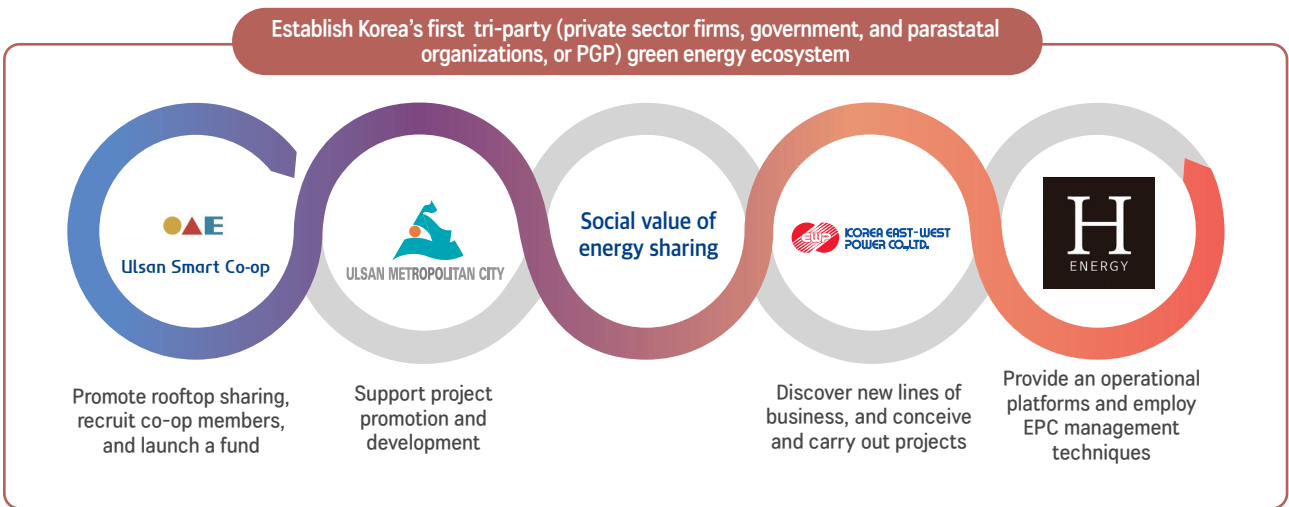
**Successfully secured local cooperative members (92 people), citizen crowd funding (KRW 300 million)**  
 ※Completed construction of 1.5 MW across 18 shared rooftops across Ulsan (11 in Bukgu, 6 in Ulju, and 1 in Namgu)

## 2. Issues and countermeasures

- Public indifference and opposition to public-private cooperatives due to past cases of negative results
  - ▶ Encouragement of participation with mentoring from EWP in collaboration with local groups
- Conducting briefings for locals and carrying out promotional activities in cooperation with Ulsan City and other regional public enterprises



## 3. Implementation plans and projects



**\*What is a small-scale power brokerage?**  
 It is a system that allows the power generated by distributed small-scale power generation resources to be traded on the electricity market.

## 4. Future plans

### A. Expand energy welfare to instill a sense of ownership in local residents

- Increase local citizen participation to promote shared rooftops as power generation resources
- Provide support for briefings detailing the achievements of citizens participating in VPPs and creating citizen cooperatives

### B. Promote nationwide future generation power grids across local hubs

- Connect remote power grids utilizing small-scale resources distributed across the country
  - ▶ Overcome the issue of intermittency in renewable power generation
- Develop projects based on the success of the Ulsan model in other regions
  - ▶ Proceed with Phase 2 of the project stimulating citizen participation in VPPs (3 MW)

## 02 | Safety and Health

### Safety and Health System

EWP has set up a safety and health system based on safety-first management. We maintain the ISO 45001(Occupational Health and Safety Management System) certification to prevent and make improvements related to safety and health risks. We have strengthened our safety management system through the faithful implementation of government guidelines for workplace safety and the public enterprise safety management guidelines. In particular, EWP has been the only public enterprise under the Ministry of Trade, Industry, and Energy to maintain an accident and fatality rate of zero per ten thousand workers for five years in a row. In addition, we have won the grand prize for safety management at the Global Standard Management Awards for several consecutive years.

### Safety Management System

| Goal       | Operate safe power plants that protect the lives and safety of workers  |  |  |
|------------|---|--|--|
| Strategies | EWP Safety Culture  | Preemptive Disaster Response   | Improvements in Community Safety   |
| Tasks      | Industrial Safety   | Disaster Safety  | Public Safety  |
|            | <ul style="list-style-type: none"><li>• Power plant safety management, risk assessment</li><li>• Worker management, work authorization</li><li>• Chemical substance and safety equipment management</li></ul> | <ul style="list-style-type: none"><li>• Business continuity management</li><li>• Automatic notification of disaster information</li><li>• Crisis manual training</li></ul> | <ul style="list-style-type: none"><li>• Operation of volunteer firefighters and resource sharing</li><li>• Status notifications and disaster response training</li><li>• Air pollutant level notifications</li></ul> |

### Workplace Safety Management Performance

| Category  |  | 2019 | 2020 | 2021 | Category |  | 2019 | 2020 | 2021 |
|-----------|--|------|------|------|----------|--|------|------|------|
| Employees | Accident rate <sup>1)</sup>                          | 0.04 | 0    | 0.04 | Partners | Accident rate <sup>1)</sup>                          | 0.05 | 0.11 | 0.11 |
|           | Fatality rate per ten thousand workers <sup>2)</sup> | 0    | 0    | 0    |          | Fatality rate per ten thousand workers <sup>2)</sup> | 0    | 0    | 0    |

<sup>1)</sup>Accident rate (%): [(no. of fatalities + no. of injuries)/no. of permanent workers]\*100

<sup>2)</sup>Fatality rate in industrial accidents per ten thousand employees (%): (no. of fatalities/no. of permanent workers)\*10,000

### Safety and Health Management

EWP ensures that all employees and stakeholders, including the CEO, engage in safety and health management to prevent and manage potential workplace risks, thereby securing profits and systematically ensuring the safety of employees.

### Safety and Health Management System





### Win-Win Cooperation Program

EWP has jointly established and operated win-win cooperation programs for safety and health with suppliers. We spare no effort in narrowing the safety gap with suppliers to improve safety and health, prevent industrial accidents, and raise the safety and health management level through risk assessment and technical support with both human and material resources.

#### Results of Win-Win Cooperation Programs Over the Past Three Years and Application Status in 2022

| Complex | 2019         | 2020         | 2021         | 2022    |
|---------|--------------|--------------|--------------|---------|
| Dangjin | Grade A      | Grade A      | Grade A(10%) | Applied |
| Ulsan   | Grade A(10%) | Grade A(10%) | Grade A(10%) | Applied |
| Honam   | Grade A      | Grade A(10%) | Grade A(10%) | - *     |
| Donghae | Grade B      | Grade A(10%) | Grade A(10%) | Applied |
| Ilisan  | Grade A(10%) | Grade A(10%) | Grade A(10%) | Applied |

\* Honam Power Complex retired on January 1, 2022

### Process Safety Management

EWP introduced a grading system for hazardous facilities with a risk of industrial accidents. To prevent accidents, we prepare and submit a process safety report for evaluation.

#### EWP’s PSM Grade Status

| Category         | Dangjin   | Ulsan  | Donghae                       | Ilisan                        |
|------------------|---|--|-------------------------------|-------------------------------|
| Grade            | S   | S  | S                             | S                             |
| Evaluation date  | Apr. 12-15, 2021  | Dec. 20-21, 2021   | Aug. 18-20, 2021              | May. 13-14, 2021              |
| Next evaluation  | 2025  |  |                               |                               |
| Subject chemical | hydrogen, hydrochloric acid, ammonia, methanol, heating oil | hydrogen, NG, ammonia, reduced pressure refined oil, hydrochloric acid | hydrogen by-product fuel oil, | hydrogen, NG ammonia solution |

※ P (Progressive), S (Stagnant), M (Mismanagement)

## 03 | Information Security

### Information Security System

EWP acquired ISO 27701 (International Privacy Information Management System) and ISO 27001 (International Information Security Management System) for our power plants to prevent cybersecurity accidents. Moreover, we became the first power company to obtain Korea’s personal information protection management system certification (ISMS-P) to strengthen our intranet and internet security. We will continue to strengthen information security by building an AI-based integrated monitoring system, upgrading the cybersecurity system, and developing human resources connected to the task.

#### Information Security Strategy

| Goal     | 1st place among public institutions based on a government evaluation & zero security incidents & enhanced awareness of information security                               |   |
|----------|---|---|
| Strategy | Enhance personal information protection   | Establish cyber-attack countermeasures and a campaign about cybersecurity   |
| Task     | <ul style="list-style-type: none"><li>Continue optimizing the personal information management system</li><li>Establish measures to protect personal information</li></ul> | <ul style="list-style-type: none"><li>Construct an Industry 4.0 cyber protection system</li><li>Pursue social value in information security</li><li>Create a convenient, safe information security environment</li><li>Strengthen information security capabilities</li></ul> |

#### Optimization of Personal Information Protection Management

EWP implements personal information handling policies pursuant to the Personal Information Protection Act and relevant laws. We diagnose and improve personal information management through regular inspections and weekly inspections. Such efforts resulted in zero cases of personal information infringement in 2021.

#### Personal Information Protection Act Violations (Unit: case)

| Category   | 2019 | 2020 | 2021 |
|--|------|------|------|
| No. of complaints related to the personal information of customers | 0    | 0    | 0    |
| No. of cases of customer information leak, theft, and loss         | 0    | 0    | 0    |

|   |
|---|
| Ministry of the Interior and Safety’s diagnosis on personal information protection management |
| Highest ranking (A) for six consecutive years   |

#### Information Security Response Training

EWP conducts information security response training in preparation for situations such as cyber-attacks and hacking. We send e-mails with mockups of hacking files to all employees and conduct whitehacking of the computer network for information security officers as part of a security drill to train and prepare them for potential situations. Furthermore, we conduct a company-wide inspection of the information security management every year.

|  |
|--|
| Triple Crown winner for personal information protection and cybersecurity from the Personal                            |
| (Information Protection Commission, the National Intelligence Service, and the Ministry of Trade, Industry and Energy) |

## 04 | Social Contribution

EWP formulates social contribution strategies according to internal and external environment changes and strives to share and practice with local community through a variety of social contribution programs.

### Social Contribution System

Since 2004, EWP has been promoting the Happy Companion activities through the 'Hands of Love, Light of Hope' volunteer group consists of 11 teams of 2,500 people from our business sites. We have also focused on contact-free or socially distanced activities to address the safety and isolation of the underprivileged during the COVID-19 pandemic. EWP is promoting programs to help resolve current energy-related problems such as combating climate change, creating energy solutions, and addressing safety threats. Following the new ESG management paradigm, we are focusing on environmental and social issues that were exacerbated by the pandemic.

### Social Contribution Strategy

|            |   |  |   |
|------------|---|--|---|
| Vision     | A trusted energy company that fulfills our social responsibilities through sharing activities |  |   |
| Slogan     | EWP e-Together [Companionship]  |  |   |
| Goal       | Joyful companionship with the local community through a mutual “Energy Dream”                 |  |   |
| Strategies | Focus on business-related ESG social contribution activities to maintain sustainable growth   |  | Continue social contribution to encourage a gradual return to normalcy for our three target groups* (youth, local communities, and the socially vulnerable) |
| Projects   | ① Branding of business-related ESG social contributions                                       | ② Continuing social contributions both online and offline as individuals and families in the three selected groups return to normal life | ③ Boosting the local economy through support of community socioeconomic organizations   |

### Social Contribution Committee

EWP objectively evaluates its social contribution performance using external experts and operates the Social Contribution Committee to review social contribution plans. The Committee is an internal advisory board consisting of up to five external experts and less than four internal experts. During 2021, committee meetings were held online due to COVID-19.

### Social Contribution Recognition Program (SCR in the Community)

The Social Contribution Recognition Program is organized and coordinated by the Ministry of Health and Welfare and the Korea Social Welfare Council in partnership with nonprofit organizations. EWP is the only public enterprise to have received the Certification of Mark C for all business sites for three years in a row in recognition of its social contribution activities..

### Social Contribution Expenditures

(Unit: KRW 100 million)



### Employee Volunteering

| Category                              | 2019   | 2020*  | 2021   |
|---------------------------------------|--------|--------|--------|
| Total volunteering hours              | 66,372 | 56,829 | 53,175 |
| Average volunteering hours per person | 30.8   | 26.1   | 24.7   |
| No. of employees who volunteered      | 2,162  | 2,155  | 2,300  |





\* Due to COVID-19, participation requirements for volunteering programs were lowered from 25 to 20 hours in 2020.



2021 Efforts to Support the Pandemic-impacted Community

EWP has implemented programs to support communities that have been heavily impacted by the prolonged pandemic. We operate programs to stimulate recovery and a return to normalcy.

| Individual level   | Company level  | Community level  |
|--|--|--|
| <ul style="list-style-type: none"> <li>• Donate a portion of an individual's salary for supplying daily necessities to the vulnerable</li> <li>• Revitalize local traditional markets and participate in events supporting welfare facilities</li> </ul> | <ul style="list-style-type: none"> <li>• Use financial benefits from agrivoltaic projects for social contribution activities</li> <li>• Organize recycling campaigns recycling donated goods</li> <li>• Continue blood drives</li> </ul> | <ul style="list-style-type: none"> <li>• Provide physical and mental health support</li> <li>• Improve individuals' daily lives through contact-free means</li> <li>• Revitalize the local economy</li> <li>• Support the hardest-hit sectors by the pandemic</li> </ul> |

|   |  |   |
|---|--|---|
| Provide physical and mental health support                  | <ul style="list-style-type: none"> <li>• Physical health <ul style="list-style-type: none"> <li>- Provide multi-purpose vehicles and items for fighting COVID-19</li> </ul> </li> <li>• Mental health <ul style="list-style-type: none"> <li>- Provide necessities or therapy plants for people in self-quarantine, medical staff, and volunteers</li> </ul> </li> </ul> |  <p>Donating therapy plants grown in recycled plastic pots</p>                                 |
| Improve individuals' daily lives through contact-free means | <ul style="list-style-type: none"> <li>• Build digital infrastructure to provide better contact-free welfare facility services</li> <li>• Construct a center to improve digital literacy among the elderly</li> </ul>  |  <p>Opening the Senior Smart Center</p>   |
| Revitalize the local economy                                | <ul style="list-style-type: none"> <li>• Offer local credits for food delivery platforms and meal kits for those living in welfare blind spots</li> <li>• Organize events and programs to boost local tourism (electric bicycle tours, contests, street fairs, etc.)</li> </ul>  |  <p>Supporting welfare vulnerable families and small business</p>                             |
| Support the hardest-hit sectors by the pandemic             | <ul style="list-style-type: none"> <li>• Support local artists by organizing concerts and festivals</li> <li>• Contribute to renovating an art school for young artists with disabilities</li> </ul>   |  <p>Facility improvement for the Special Art School for students with severe disabilities</p> |

Happy Companionship Activities

Since 2004, EWP has been promoting the Happy Companion activities through the 'Hands of Love, Light of Hope' volunteer group consists of 11 teams of 2,500 people from our business sites.

Fresh Energy Cleanup

EWP's Fresh Energy Cleanup is a joint project with social enterprises. We visit the homes of those in need to improve their quality of life with home improvements, including the repair and cleaning of windows, walls, lights, and storage areas. These efforts save KRW 500,000 a year in energy costs while creating jobs in relevant sectors.



(Carrying out "Fresh Energy Cleanup" project)

Cooking and Sharing

With the voluntary participation of employees and the local community, EWP's "Meals at Home" program prepares and delivers food to socially vulnerable individuals suffering in the aftermath of the COVID-19. We gather and cook at least once a month to care for others while practicing social responsibility.



( Delivering food dubbed "Heart-warming energy")

Energy-focused Social Activities

As one of EWP's signature social activities, we created a footstep-counting application called EWP Energy 1004. When a user achieves their step goal, EWP donates a matching amount towards the installation of solar panels at public facilities, such as local schools and nursing homes. Together with citizens, EWP's executives and staff participated in the program and donated 26.6 billion footsteps, in turn supplying 81.58 kW of solar energy to 17 public facilities between 2019 and mid-2022.



(Solar panel installation at a child care center)

## 05 | Job Creation

### Job Creation Strategy

EWP makes an effort to create sustainable, high-quality, and inclusive jobs in its main business sector. In 2021, we successfully accomplished our goal by creating 3,783 jobs (24% more than our goal of 3,045) through direct and indirect employment.

### Job Creation Performance

| Category                     | 2019  | 2020* | 2021  |
|------------------------------|-------|-------|-------|
| Public sector <sup>1)</sup>  | 110   | 55    | 94    |
| Private sector <sup>2)</sup> | 2,082 | 2,483 | 3,689 |
| Total                        | 2,192 | 2,538 | 3,783 |

<sup>1)</sup> Public sector: New hires and contract workers offered full-time employee positions

<sup>2)</sup> Private sector: Direct and indirect hires (investment cost X job creation coefficient X rate of full-time employees)

### Job Creation Activities

#### Jobs Within EWP's Primary Business

Despite phasing out some of the older power generation facilities, EWP continues to create new jobs in the renewable energy sector by developing technologies and introducing more flexible employment options. In recent years, we have increased internship opportunities for diverse groups. In this pursuit, 288 internships for young applicants, 20 positions in our win-win partnership programs, as well as 29 positions for disabled individuals. At the same time, we also reduced working hours and improved our working process. As a result, a total of 94 new employees were hired in 2021.

### From Contract Workers to Full-Time Employees




EWP established a subsidiary, EWP Service Co., Ltd., in 2019 and rehired all 427 contract workers as full-time employees. To create an environment that is fair to all, EWP also increased the budget for employee welfare and provided firefighting and disaster equipment to all work sites. In addition, we identified 12 cases of unfair contracts made by the subsidiary and took measures to protect workers and prevent recurrence. Consequently, EWP Service has kept the balance in the black for the past three years and is now a dispute-free company.

## 06 | BP Realizing Social Value by Creating Eco-Friendly Jobs

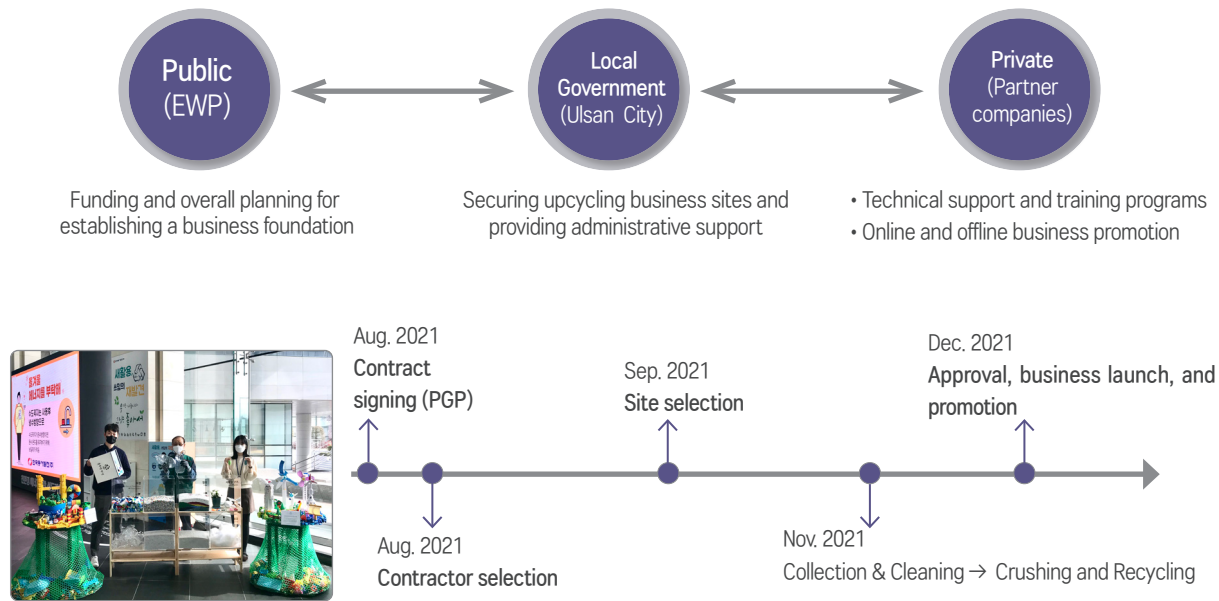
### 1. Objective

- Develop a business model in the environmental sector by reducing plastic use and creating jobs
- Create 28 jobs for senior citizens in the environmental sector and establish social enterprises

### 2. Expected Benefits

|   |   |
|---|---|
|  | 1. Create high-quality jobs for the elderly<br>Expand job creation nationwide by linking the social and environmental sectors<br><i>*Expected to create more than 10,000 jobs (1,280*10 people per agency) when expanded nationwide</i> |
|  | 2. Promote a plastic-free society<br>Comply with the government's environmental policies and encourage the public's interest and involvement  |
|  | 3. Realize ESG Environmental Management<br>Promote sustainable growth by realizing corporate environmental, social, and governance management potential   |

### 3. Description



### 4. Future Plans





# 07 | Human Rights Management and HR System

## Human Rights Management

EWP upholds the human rights of all stakeholders including employees, partner companies, and the community, throughout its entire business process. Accordingly, we follow the international standards and norms for human rights including the UN World Human Rights Declaration and hold annual impact assessments to identify possible infringements of human rights.

| Vision    | A leading company in human rights management where everyone is valued and respected   |  |   |
|-----------|---|--|---|
| Stages    | Leap (2021)   | Expand (2022~23)   | Lead (2024~25)  |
| Targets   | Advance the human rights due diligence system   | Promote respect for human rights   | Become a leading company in human rights management   |
| Direction | <ul style="list-style-type: none"><li>Implement and improve the human rights management system</li><li>Promote human rights management programs</li></ul> | <ul style="list-style-type: none"><li>Increase focus on human rights with communities and partners</li></ul>   | <ul style="list-style-type: none"><li>Lead human rights in public institutions</li><li>Spread the best practices of human rights management</li></ul> |
| Norms     | Human rights management charter   |  | Execution guidelines  |
|           | <ul style="list-style-type: none"><li>Joint declaration of 10 management and labor union objectives</li></ul>   | <ul style="list-style-type: none"><li>Human rights impact assessment proceduresd</li><li>Human Rights Management Implementation Guidelines</li></ul> |   |
| Execution | Executing organization  | Decision-making and supervising organization   | Relief organization   |
|           | Ethics & Compliance Department  | Human Rights Management Committee  | Human Rights Violation Relief Working Committee   |

## Advancing Our Human Rights Management

To further our dedication to human rights, EWP developed the independent EWP Human Rights Index (EHRI) to continuously manage and improve HR management. To ensure the objective validity of the EHRI, we seek guidance from human rights experts, the Public Agency Human Rights Management Manual for public agencies by the National Human Rights Commission, and additional overseas indices. Our human rights management level is assessed using a total of 40 indices in 4 stages of Plan, Do, Check, and Action via the EHRI system.

## Human Rights Management Evaluation Results

| 2020 | 2021      |
|------|-----------|
| Good | Excellent |

## Measures to Improve Human Rights Management

EWP ensures the effectiveness of human rights violation relief procedures. We disclose the cases of human rights violations and the management process for responding to them in a fair and transparent manner. We encourage our partner companies to commit to human rights management to improve overall level of it.

| Improve the effectiveness of the human rights violation relief procedures   | Encourage partner companies' human rights management   | Enhance our employees' sensitivity to human rights issues  |
|---|--|--|
| <ul style="list-style-type: none"><li>Provide human rights data and conduct instructional meetings for the Human Rights Violation Relief Committee</li><li>Revise the Human Rights Management Implementation Guidelines</li></ul> | <ul style="list-style-type: none"><li>Promote human rights management agreements with partner companies</li><li>Provide education and human rights newsletters for subsidiaries</li><li>Revise the pledge of human rights management practices</li></ul> | <ul style="list-style-type: none"><li>Improve understanding of human rights through public events such as essay contests and educational program</li></ul> |

## Fostering Human Resources

### System for Developing Fostering Human Resources

Adapting to a tech-oriented world, EWP has upgraded our e-learning system and constructed a virtual learning environment with digital educational programs in response to the prolonged COVID-19 pandemic. We hope to encourage employees' digital development through various programs to prepare them for the rapidly approaching Fourth Industrial Revolution.

### Human Resource Fostering Strategy

| Desired talent      | Creative and convergent talent who will lead the eco-friendly energy market  |  |  |  |
|---------------------|--|--|--|--|
| Strategic direction | Improve core talent  | Strengthen fundamental capabilities  | Develop specialized capacities   | Expand educational capabilities  |
| Key projects        | Promote informal learning  | Foster digital and green human resources   | Strengthen leadership capabilities   | Build an online platform   |
|                     | <ul style="list-style-type: none"><li>Construct a virtual learning environment</li><li>Implement educational solutions</li></ul> | <ul style="list-style-type: none"><li>Internalize digital capabilities</li><li>Build a new human resource fostering system</li></ul> | <ul style="list-style-type: none"><li>Support the growth of female leaders</li><li>Expand the competency assessment of executive staff</li></ul> | <ul style="list-style-type: none"><li>Remodel the e-learning system</li><li>Develop high-quality content</li></ul> |

### Fostering Digital Talent

As the Fourth Industrial Revolution approaches, EWP will continue to strengthen the digital capabilities of its executives and employees. With that in mind, we have launched new educational programs such as our In-company Big Data Analysis Project for employees of various digital literacy levels. During 2020, 132 employees completed the beginner, intermediate and advanced digital training programs and developed 15 large data analysis solutions including environmental risk prediction indicators.

### New Deal Human Resource Fostering System

EWP is also expanding mandatory education and external training by partnering with graduate schools to pursue the Korean New Deal project. Our selected New Deal experts receive support as they complete at least 24 total training hours of mandatory training. With inspiration from the New Deal project, we continue to develop suitable human resource programs.

### Customized Education Program for Fostering Female Leaders

EWP respects gender diversity and encourages future female leaders with educational programs customized to suit workers' different positions and stages in life. We support a phased competency-building program from initial work assignment to accommodate the needs of childbirth, parenting, returning to work, and promotion. In 2020, we promoted our first female employee to a primary, first-rank position. The following year, the rate of third-rank or higher female managers rose to its highest level, 48 women (7.3%).

### Support Program for Retirees

For employees set to retire in the near future (individuals subject to salary peak<sup>1)</sup>, EWP provides educational programs on finding re-employment and launching startups to help them prepare for life post-retirement.

<sup>1)</sup> System that begins cutting the salary of workers from a certain age (58 years old), to guarantee employment until retirement

## Fair HR System

### Fair Recruitment

EWP utilizes the Certification of Right Recruitment Management that measures a company’s fair and just recruitment system. The third party certification ensures that EWP has systematic and transparent hiring policies and procedures in place. Since 2020, our recruitment monitoring system invited an external expert to observe the entire hiring process to ensure transparency.

| No. of hiring irregularities pointed | No. of Hiring irregularities reported |
|--------------------------------------|---------------------------------------|
| 0 cases                              | 0 cases                               |

### Blind Recruiting Process Focusing on Work Capabilities

EWP follows a blind recruitment process based on the National Competency Standards’ (NCS)<sup>1)</sup> to recruit new hires. The blind recruitment process enables HR managers to focus on an applicant’s potential and suitability for the company in addition to their social value competencies. Leaving out irrelevant personal information, such as education background, gender, and details of their appearance information, prevents discrimination.

<sup>1)</sup>National Competency Standards (NCS): Standardized evaluation for knowledge, skills, and aptitudes needed for work performance according to industry and position

### Social Equality Recruitment Goal System

EWP values diversity and has expanded its employment of diverse individuals to alleviate inequality among the underprivileged by ensuring equal opportunities, conducting socially equitable hiring practicing, and including young people from various backgrounds, high school graduates, and local talent. In 2021, we exceeded all government standards, as well as our own goals, in each areas related to equal and balanced recruitment.

| Category                | Young people  | National merit  | Disabled            | High school graduates | Relocated area                 | Non-metropolitan area |
|-------------------------|---------------|-----------------|---------------------|-----------------------|--------------------------------|-----------------------|
| Goal (Standard)         | 3%<br>(quota) | 9%<br>(current) | 3.4%<br>(full-time) | 7%<br>(recruited)     | 27%<br>(mandatory recruitment) | 35%<br>(recruited)    |
| Recruitment performance | 3.4%          | 9.2%            | 4.3%                | 10.6%                 | 30.6%                          | 68.1%                 |

### Fair Performance Assessment and Compensation

EWP conducts fair performance assessments and provides reasonable compensation accordingly. Key Performance Indicators (KPI)<sup>1)</sup> are applied both to organizational and individual assessments. For individual assessment, the evaluatee participates through the Management By Objective (MBO)<sup>2)</sup> method and exchanges two-way feedback with senior employees. Objections are allowed with re-evaluations occurring after deliberation. Based on the evaluation results, reasonable compensation in the form of a pay raise or a promotion is determined. Also, for those with low assessment scores, we offer a program for training and coaching on self-development and performance improvement.

<sup>1)</sup>Key Performance Indicator (KPI): Key factors that require management to successfully achieve an objective

<sup>2)</sup>Management By Objective (MBO): System under which achievable goals are set; performance is evaluated and the supervisor and the employee exchange feedback.

## 08 | Happy Workplace

### Corporate Culture Promotion

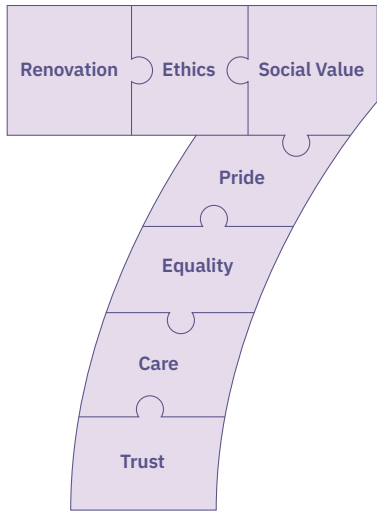
Based on the Respect 7 Culture, EWP is continuously pursuing the 18 major tasks, including smart-work innovation and proper workplace etiquette to establish a communicative culture of mutual respect, trust, and cooperation..

| Corporate Culture Promotion | Vision | Corporate Culture for Flexibility and Equity |        |              |       |          |      |       |
|-----------------------------|--------|--|--------|--------------|-------|----------|------|-------|
|                             | Facets | RESPECT 7                                    |        |              |       |          |      |       |
|                             |        | Renovation                                   | Ethics | Social Value | Pride | Equality | Care | Trust |
|                             | KPI    | E-GWP Index (Target: 90 points by 2035)      |        |              |       |          |      |       |

### Corporate Culture Major Tasks

| Shared Values     |                             | Corporate Culture Directions | Major Tasks   |
|-------------------|-----------------------------|------------------------------|---|
| Core Values       | Safety First                | Renovation                   | · Improving working methods<br>· Eliminating outdated practices                 |
|                   | Green Transition            | Ethics                       | · Promoting ethics and integrity<br>· Facilitating an internal reporting system |
|                   | Coexistence Partnership     | Social Value                 | · Internalizing ESG management<br>· Encouraging social contribution activities  |
|                   | Integrity and Fairness      | Pride                        | · Promoting mutual respect<br>· Supporting competency improvement               |
| Management Policy | Value Pursuit               | Equality                     | · Operating a fair HR system<br>· Increasing appraisal system acceptance        |
|                   | Innovation Orientation      | Care                         | · Striking a work-life balance<br>· Supporting employees' wellbeing             |
|                   | Participatory Communication | Trust                        | · Enhancing leadership<br>· Strengthening communication                         |

### Respect 7 Culture Facets



### 2021 E-GWP Corporate culture index

86 (85.6 in 2020, 83.7 in 2019))

### Multi-Directional Communication System

EWP has built a multi-directional communication system to resolve generational and gender-related differences. The CEO and executives will continue to listen to employees’ opinions through meetings while promoting a flexible corporate culture. Furthermore, we operate communication and discussion channels named Innovation Agora, where anyone can suggest innovative ideas, and a special organization named Dudeurim Evaluators to facilitate communication with minority labor unions and female employees. In 2020, we further strengthened online communication channels in response to COVID-19.



# Governance

01 | Governance

02 | **BP** Expanding Employee Observation for Open BOD

03 | Ethical Management

04 | Communication with Stakeholders

05 | Risk Management

Strengthen the role of the BOD to secure governance transparency

**ESG** Committee (June 2021) launched

Public Institution Management Performance  
Evaluation Grade **S**  
(Highest among 548 public organizations)

Advance ethical compliance management and anti-corruption systems

Corruption and unethical behavior  
**zero** occurrence

Enhance business transparency by expanding ESG disclosure

CDP Carbon Management Special Award winner

Gold prize in the sustainability report category at the LACP Awards



# 01 | Governance

EWP improves transparency and independence in its governance structure. We strive to strengthen the role of non-executive directors in monitoring and consulting and diversify the composition of the BOD.

## Composition and Roles of the BOD

The Board of Directors of EWP, the company's highest decision-making body, consists of four internal directors, including the President and CEO, and five external directors. In order to ensure 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. Executive directors account for less than half of the total of directors, including the President and CEO. Committees within the BOD, including the Audit Committee and the ESG Committee, serve as auditors and advisors to the board, supporting efficient and rational decision-making in their fields.

## 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. For the position of company president, the Executive Nomination Committee nominates candidates, and the Public Institution

Management Committee and shareholders deliberate and vote. With the recommendation of the Minister of Trade, Industry and Energy, the President of the Republic of Korea appoints a new company president. Executive directors are appointed by the president after being election at the general shareholder meeting. For executive auditors, the Executive Nomination Committee nominates candidates, and the Public Institution Management Committee and shareholder meeting deliberate and hold an election. With the recommendation of the Minister of Economy and Finance, the President of the Republic of Korea appoints executive auditors. For non-executive directors, the Executive Nomination Committee nominates candidates, and the Public Institution Management Committee and shareholders deliberate and hold an election. The Minister of Economy and Finance appoints non-executive directors. The terms of office for the company's president and directors are three years and two years, respectively. Executives are reappointed on an annual basis.

## Board of Directors

| Name             | Gender | Position                                   | Background  | Term                    |
|------------------|--------|--|---|-------------------------|
| Kim, Young-moon  | M      | President & CEO                            | Former Commissioner of the Korea Customs Service                          | 2021.04.26 - 2024.04.25 |
| Kim, Sang-cheol  |        | Executive auditor                          | Former Policy Assistant to the Minister of Trade, Industry and Energy     | 2021.09.14 - 2023.09.13 |
| Lee, Seung-hyeon |        | Executive VP of Safety & Engineering Group | Former Senior Managing Director of Planning Group, EWP                    | 2020.06.10 - 2022.06.09 |
| Cho, Sang-gi     |        | Executive VP of Business Development Group | Former Head of the Power Generation Technology Development Institute, EWP | 2020.06.10 - 2022.06.09 |
| Bae, Young-il    |        |  | Former Executive Director, Business Office, GS E&R                        | 2019.09.10 - 2022.09.09 |
| Choi, Gyu-sang   |        |  | Former Executive Director, BS Co., Ltd.                                   | 2020.06.11 - 2022.06.10 |
| Ahn, Suk-chan    | F      | Non-executive director                     | Former Prof. Dept. of Accounting, Duksung Women's University              | 2021.02.10 - 2023.02.09 |
| Park, Seong-jin  | M      |  | Former Operating Committee Chair of the Ulsan Namgu Council               | 2021.04.23 - 2023.04.22 |
| Lee, Yung        |        |  | Former accountant, DO-ONE Accounting Corporation                          | 2022.02.16 - 2024.02.15 |

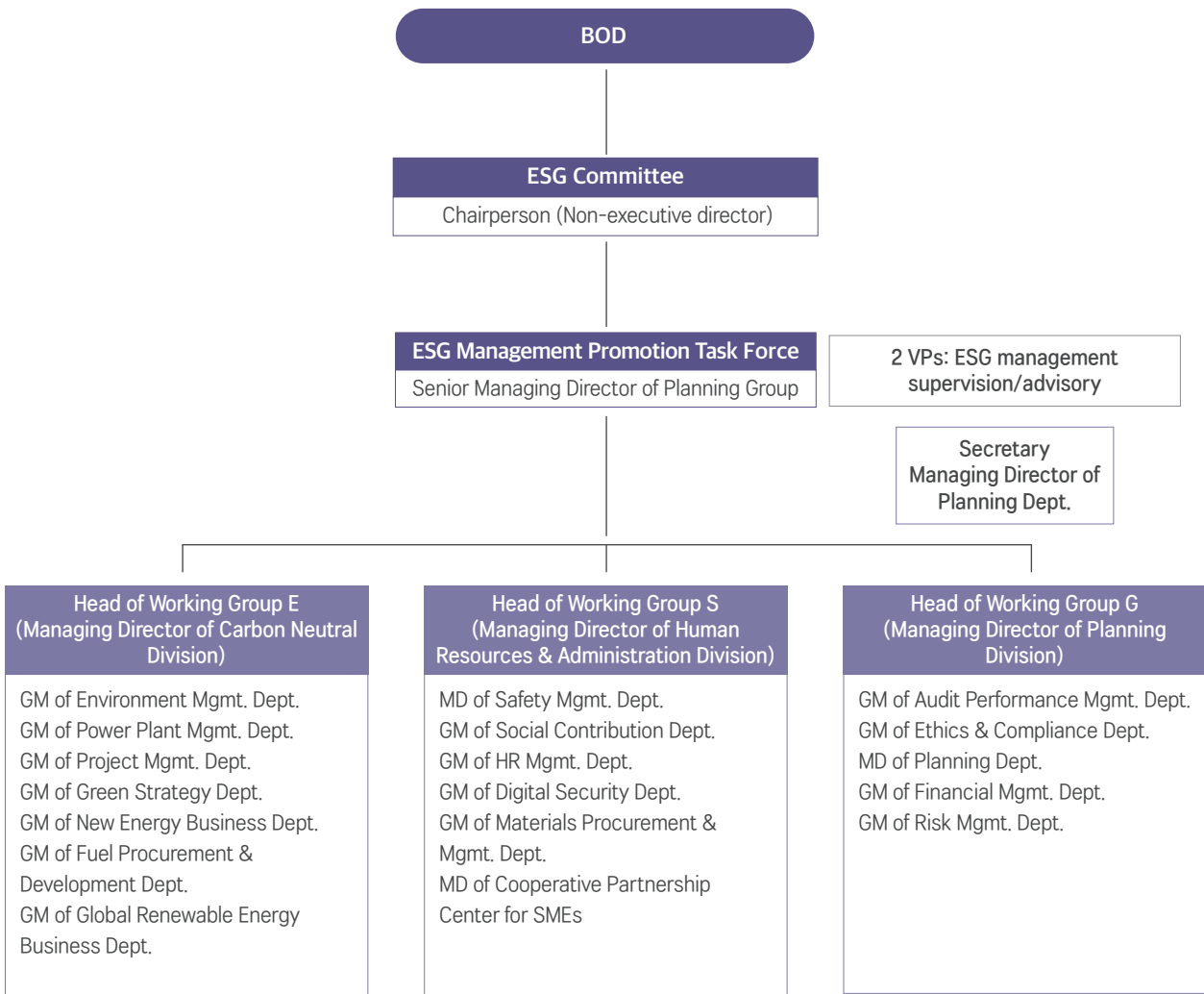
## Committee Members

| Committee       | Composition                                | Chair          | Members                      | Purpose   |
|-----------------|--|----------------|------------------------------|---|
| Audit Committee | Executive auditor, Non-executive directors | Bae, Young-il  | Kim Sang-cheol, Ahn Suk-chan | Audit of duties/accounting and reporting to the board |
| ESG Committee   | Non-executive directors                    | Choi, Gyu-sang | Ahn Suk-chan, Park Seong-jin | Providing advice and consulting on ESG management     |

## ESG Committee

In June 2021, EWP launched the ESG Committee within the BOD to build a company-wide ESG decision-making system. The ESG Committee supports our directors in establishing ESG management strategies and advises them. The Planning Department in the Planning Division, which is in charge of overall ESG management, develops company-wide ESG management promotion plans, identifies tasks, and monitors progress. To that end, we established the ESG Management Promotion Task Force, consisting of all department heads. The Task Force identifies critical tasks related to the environment, society, and governance to prepare action plans and provides performance data to the ESG Committee. This pan-organization decision-making system allows us to improve inter-division collaboration and ESG management.

## ESG Management Organization



\*GM: General Manager

\*MD: Managing Director



## Transparent BOD

### Energy Transition, a New Theme for BOD Meeting

EWP adopted a new theme, Energy Transition, for the BOD meeting to achieve an open BOD and improve its transparent management. In our BOD meetings, we suggest directions for achieving energy transition and carbon neutrality, looking at things from a wider perspective. All our employees are encouraged to take part in discussions about strategies for strengthening environmental infrastructure, expanding renewable business, and developing carbon neutrality roadmaps. As a result, we have expanded our role in innovative management.

### Implementation of the Employee BOD Observation System

EWP regards the labor union as a highly respected management partner and is the first Korean public power company to operate an employee BOD observation system. Through this system, employee representatives participate in BOD meetings to stay informed of the status of management procedures and provide feedback. At the fourth board meeting of 2021, a representative proposed a joint labor-management response to human resource issues caused by the closure of old power plants, and the proposal prompted the establishment of the Human Resources Subcommittee in the Future Joint Committee of Labor and Management. At

the fifth meeting, the BOD members and employee representatives actively discussed the agenda for expanding the energy transition organization and opening regional centers for renewable energy sources. Our transparent operation of the BOD makes us stand out as an exemplary among public companies under the Ministry of Trade, Industry and Energy.



The 3rd BOD on June 30, 2022

### Expansion of Female Executives’ Participation in Management

EWP has laid the foundation for appointing talented female executives and diversified its public relations procedures to achieve gender equality in executive positions. Executive Nomination Committee regulations were revised to strengthen gender equality and increase the proportion of female members to 28%, exceeding the legal requirement of 20%. We posted recruitment announcements on the websites of EWP, affiliated organizations, and the Ministry of Gender Equality and Family. Every effort has been made to secure female talents for the executive board using a database provided by the Ministry. Consequently, all female applicants were recommended as nominees.

### Status of Female Executives

| Category                       | 2021 | 2025 (goal) |
|--------------------------------|------|-------------|
| No. of female executives/total | 1/9  | 3/9         |
| Ratio of female executives     | 11%  | 33%         |

### Board Evaluation and Compensation

EWP is evaluated based on its management performance by the Ministry of Economy and Finance. Registered directors (except for non-executive directors and audit committee members) and auditors receive incentives based on their management performance. The compensation of directors and auditors is determined and approved at a general shareholder meeting. It follows standards established by the BOD based on an individual’s position and duties. We disclose the details of the remuneration system in our business reports and through the All Public Information In-One (ALIO) system.

### Compensation of the BOD<sup>1)</sup>

(Unit: persons, KRW 1,000)

| Category               | No. of persons | Total amount | Avg. amount per person |
|------------------------|----------------|--------------|------------------------|
| Registered director    | 3              | 522,092      | 174,031                |
| Non-executive director | 3              | 90,000       | 30,000                 |
| Audit committee member | 2              | 60,000       | 30,000                 |
| Auditor                | 1              | 196,053      | 196,053                |

<sup>1)</sup> Based on business reports as of December 31, 2021

02 | BP Expanding Employee Observation for Open BOD

1. Objective

A. Expand employees’ opportunities to participate BOD meetings to improve governance transparency

2. Development

A. The first state-owned power company with an Open BOD Observation system in regulation

| Improve employee participation   | Low-level management  | BOD observation regulations   |
|--|---|---|
| <ul style="list-style-type: none"> <li>- Added an article concerning employee participation in the labor agreement (May 2019)</li> </ul> | <ul style="list-style-type: none"> <li>- Included labor union for New Deal strategies (July 2020)</li> <li>- Shared BOD agenda</li> </ul> | <ul style="list-style-type: none"> <li>-The first public power company to amend BOD regulations</li> <li>- Introduced the observation system (Dec. 2020)</li> </ul> |

B. Measures to encourage employee participation

- (1) Briefing: Provide briefings on the BOD agenda prior to each meeting
- (2) Booklet: Information on the roles, powers, and responsibilities of BOD members
- (3) Meetings: Quarterly meetings to discuss system improvements with the labor union



C. Giving the floor to employees

- (1) The chair offers the floor to employees during the meeting
- (2) Employees submit items for the agenda prior to the meeting

3. Benefits

A. Selected as an exemplary case of Open BOD by the government (the only public company selected)

<Comments by the BOD Chairperson and the Chief of the Labor Union in an interview>

|  |   |  |  |
|--|---|--|--|
|  <p>Ahn, Suk-chan<br/>Chair Person<br/>of BOD</p> | <p>Q.What is your evaluation on the observation system among non-executive directors?</p> <p>A. “All BOD members are satisfied with the system reminds us of the importance of ESG management, and it pushes us to prioritize the environment, safety, and job creation over efficiency. Our discussions are more in depth and productive.”</p> |  <p>Kim, Seong-kwan,<br/>Chief of Labor<br/>Union</p> | <p>Q.What do you consider to be the top priority of your role?</p> <p>A. “Having the union’s voice heard at the BOD is most important. The BOD Chair never forgets to offer the floor to participating employees so they can share issues and opinions from the union and work sites.”</p> |
|--|---|--|--|

B. Effect

| Union’s opinion-sharing | <p>Joint response to staffing issue regarding the phase-out of old power (4th BOD, 2021)<br/>→ The Subcommittee of Labor Management for Future Committees was established</p> <p>Union’s role in fulfilling the energy transition (5th BOD, 2021)<br/>→ BOD responded directly to the labor union’s Carbon Neutrality Committee</p> |
|-------------------------|---|
| Results                 | <p>Rate of employee participation and opinion-sharing in BOD was 100%</p>   |

4. Future plans

| Improve the system   | TF for the labor director system  | Introduce the labor director system   |
|--|---|---|
| <ul style="list-style-type: none"> <li>- Provide in-depth agenda briefings</li> <li>- Conduct sideline meetings between participating employees and BOD members</li> </ul> | <ul style="list-style-type: none"> <li>- Legal review and monitoring</li> <li>- Benchmark excellent cases</li> <li>- Hold regular discussions with the labor union</li> </ul> | <ul style="list-style-type: none"> <li>- Establish company policy of the labor director position</li> <li>- Follow-up process after the enforcement decree</li> </ul> |

Efficient BOD

Board Operations

A BOD meeting is held with the attendance of at least half of the registered directors. Resolutions on key issues, such as management goals, budgets, and financial plans, are made with the consent of the majority of the directors, excluding directors with special interests. The BOD meets regularly on the fourth Friday of the month, with additional meetings held as needed. In 2021, the board held 12 meetings, reviewed 58 agendas, and made reports on 8 issues. The minutes and records from each BOD meeting are available on EWP’s website and the system for disclosing management information of public institutions.

BOD Meetings

| Year | No. of meetings |
|------|-----------------|
| 2019 | 14              |
| 2020 | 11              |
| 2021 | 11              |

Attendance Rate

| Year | Attendance rate |
|------|-----------------|
| 2019 | 92.1%           |
| 2020 | 99.0%           |
| 2021 | 99.1%           |

Supporting Non-Executive Directors’ Competency for Efficient BOD

EWP supports the development of non-executive directors’ expertise to enhance the efficiency of the board. We provide opportunities to improve competency with on-site inspections and training programs. We encourage non-executive directors to be active in consulting and leading policy reviews through the BOD advice management system.

Results of Activities Supporting Non-Executive Directors’ Competency

| Category                                     | 2019  | 2020  | 2021  |
|--|-------|-------|-------|
| Expert committee meetings                    | 7     | 10    | 11    |
| Suggestions                                  | 50    | 50    | 60    |
| Adopted suggestions                          | 15    | 30    | 37    |
| Non-Executive Directors’ BOD Attendance Rate | 94.3% | 98.2% | 98.3% |



# 03 | Ethical Management

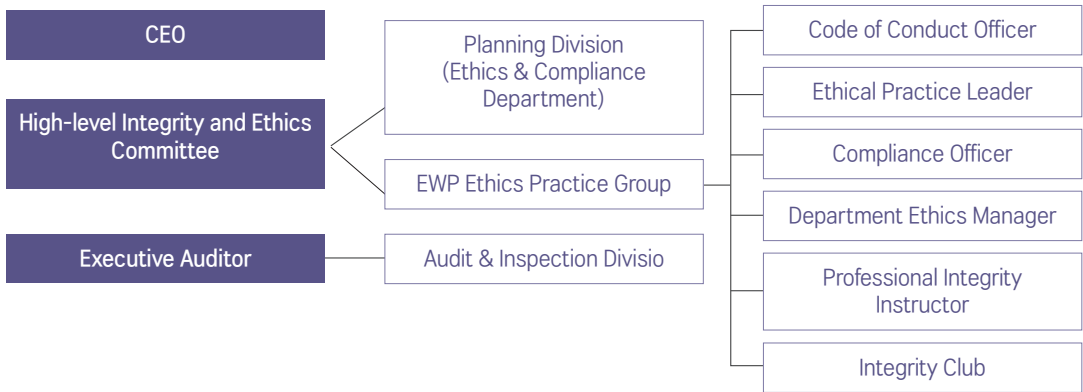
## Ethical Management Promotion

EWP makes efforts to spread the value of ethics and integrity in the company and society. Commitment to our three strategic directions will lead us in law-abiding and ethical management to earn public trust and respect.

|                   |  |  |   |
|-------------------|--|--|---|
| Goal              | To achieve a higher grade on the ACRC Integrity Assessment   |  |   |
| Vision            | A respected public enterprise that grows based on the improved integrity of our actions<br>Slogan: Organizational culture valuing integrity, autonomy, and responsibility  |  |   |
| Keyword           | Internal integrity<br>Improving internal integrity through autonomy and trust  | External integrity<br>Enhancing external integrity through communication and responsibility  | Integrity culture<br>Promoting integrity through compassion and participation   |
| Major tasks       | <ul style="list-style-type: none"> <li>Implement company-wide TF</li> <li>Improve systems to increase fairness at work</li> <li>Increase trust in the corruption reporting system</li> <li>Activate communication channels for employees</li> </ul>  | <ul style="list-style-type: none"> <li>Communicate with partner companies</li> <li>Expand disclosure of work standards and procedures</li> <li>Provide information on the corruption reporting system</li> <li>Deliver the management's messages on integrity</li> </ul> | <ul style="list-style-type: none"> <li>Strengthen communication between employees</li> <li>Narrow the generational gap</li> <li>Provide integrity improvement education</li> <li>Create contents for participation</li> </ul> |
| Monitoring system | (Internal)<br>Self-determined integrity → Plans to promote internal integrity<br>(Survey)<br>Detection of harassment and abuse of power → Measures to eliminate abuses of power in the workplace<br>(Compensation)<br>Operation of Clean Mileage Program, reward for anonymous reporter → Reward for excellence<br>(Penalty)<br>Demotion, reassignment, reward reduction, and other disciplinary actions |  |   |

## 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, and middle and lower-level working groups. The Integrity and Ethics Committee makes policy decisions and shares key issues and progress with the CEO and management. The Ethics and Compliance Department in the Planning Division is in charge of ethical management and conflict resolution, such as litigation and arbitration. EWP's Ethics Practice Group oversees ethics-related activities.



## Work Process

|               |   |  |
|---------------|---|--|
| Execution     | > | CEO→Planning Division→Code of Conduct Officer, Compliance Officer                    |
| Auditor       | > | Executive Auditor→Audit & Inspection Division→Solicitation Prevention Officer        |
| Collaboration | > | High-level Integrity and Ethics Committee → EWP Ethics Practice Group→Integrity Club |
| External      | > | Public Enterprise Integrity Society Council, Ulsan Public Institution Audit Council  |

## Ethical Management Practice

### Management Leading by Example

Our management leads by example in promoting ethics and integrity among our employees. The CEO took a strong position with a New Year's address aimed at eradicating corruption through an integrity-based organizational culture that values autonomy and responsibility. The CEO has discussed the value of integrity with employees in Integrity Table Talk events and town meetings. Furthermore, we continue to campaign for ethical management through online and offline events with partner companies and institutions.

### Integrity Improvement Task Force

EWP has established a task force to lead a company-wide effort to improve integrity, achieve zero corruption, and disclose information. We continue to meet the public's demand for transparent processes and fair results. Our strict internal inspection guarantees the elimination of wrongful practices. Furthermore, external investigators join in corruption investigations to monitor the process, contents, and outcomes of case investigations.

### Employee Communication Channel

EWP operates an online message board to encourage open-minded, inter-generational communication between employees. On our aptly named message board, "E Sim Jeon Sim" (meaning great minds think alike), employees can freely and anonymously share opinions on organizational culture and our future direction. Through this new method, we can identify issues in our institutions and regulations and improve overall fairness in the workplace.

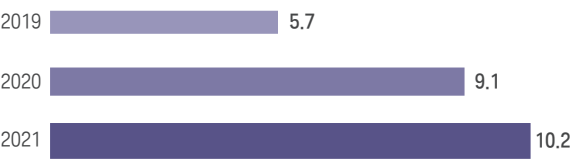
### Improving Work Transparency

We continually provide our partner companies with information on fair work processes and anti-corruption measures. We distribute Administrative Affairs Guidebooks containing answers to frequently asked questions about EWP's work procedures, collected from meetings and surveys. The guidebooks also provide information on how to report corruption at each stage of the contract process and how to request compensation for unfair losses.

### Enhancing Employee Ethical Awareness

EWP executives and employees take an annual pledge to renew our dedication to ethical practices, anti-corruption, and integrity. At the annual ceremony, we pledge to comply with laws and regulations, company rules, and anti-corruption activities while rejecting unfair demands and misconduct. Furthermore, EWP presents our employees with ethical judgment standards based on the ethics charter, guidelines, code of conduct, and the ethical standards of our partner companies to prevent corruption and create a clean public service environment. EWP provides all employees with mandatory online and offline education on ethical practices. In particular, we have organized programs, including 'Integrity Theater' and 'Integrity Card News', to engage our employees and stimulate interest in ethical practices.

### Ethics Training Hours per Person (Unit: hours)



### No. of Ethics Trainees (Unit: persons)





## 04 | Communication with Stakeholders

EWP operates public-participatory communication platforms to establish a transparent management system. We encourage stakeholders to participate and actively collect their feedback through communication channels.

### Internal Stakeholders

| Category     | Employees   | Labor union   | Subsidiaries  |
|--------------|---|---|---|
| Key concerns | Improve organizational culture with trust, communication, and integrity   | Reinforce labor-management cooperation and communication on management issues and policies  | Enhance partnerships with subsidiaries of equal status  |
| Channels     | <ul style="list-style-type: none"><li>Human Rights Management Committee</li><li>EWP Ethics Practice Group</li><li>Discussions, surveys, etc.</li></ul>  | <ul style="list-style-type: none"><li>Employees' BOD observation system</li><li>Dudream Evaluation Group</li><li>Labor-management joint declarations, labor union newsletters</li></ul>   | <ul style="list-style-type: none"><li>Council for shared growth with subsidiaries</li><li>Win-win workshop</li></ul>  |
| Achievements | <ul style="list-style-type: none"><li>E-GWP corporate culture index: 83.7 (2019) → 86 points (2021)</li><li>Conducted surveys and discussions</li></ul> | <ul style="list-style-type: none"><li>First BOD observation system among power providers: Selected as an exemplary case by the Ministry of Economy and Finance</li><li>Labor-management cooperation index: 4.7 (2020) → 4.8 points (2021)</li><li>Joint declaration of labor-management promotion of EWP New Deal</li></ul> | <ul style="list-style-type: none"><li>Labor-management joint human rights management agreement with subsidiaries</li><li>Office and lounge renovations</li><li>Contribution of KRW 0.9 billion to Internal Fund</li></ul> |

### External Stakeholders

| Category     | Public  | Partner companies  | Related organizations  |
|--------------|---|--|--|
| Key concerns | Increase public participation, communication, information sharing, and expand opinion gathering   | Enhance worker safety and shared growth  | Create social value synergy through collaboration  |
| Channels     | <ul style="list-style-type: none"><li>Public Participatory Innovation Group</li><li>Public surveys and contests</li><li>Press release, social media service, and YouTube</li><li>Information Disclosure System</li><li>Social Value Committee, etc.</li></ul>   | <ul style="list-style-type: none"><li>CEO's online communication with SMEs</li><li>SME Council</li><li>Safety Management Committee</li></ul>                                       | <ul style="list-style-type: none"><li>Ulsan Innovation Town Public Institution Council</li><li>Ulsan Public Forum</li><li>Collaboration with the Education Office</li></ul>  |
| Achievements | <ul style="list-style-type: none"><li>Won two awards related to social contributions from the Ministry of Public Administration and Security</li><li>Citizen Participation Index: 77 (2020) → 79.1 points (2021)</li><li>Ranked top among 36 public enterprises in an information disclosure evaluation</li></ul> | <ul style="list-style-type: none"><li>Highest grade in shared growth 10 times</li><li>Occupational fatality rate of zero (per 10,000 persons) for five consecutive years</li></ul> | <ul style="list-style-type: none"><li>Selected as an excellent case of active administration by the Ministry of Public Administration and Safety</li><li>Increase in energy sector employment: 40 (2020) → 61 employees (2021)</li></ul> |

## Disclosure and Release of Information

### Integrated Disclosure System for Better Transparency

EWP strengthens an integrated disclosure system, All Public Information In-One (ALIO), to improve transparency. We disclose data for the previous five years on institutional operations, key businesses, and management status using the ALIO system. We also conduct satisfaction surveys and continuously identify areas for improvement to provide user-centered information. We disclose the entire list of produced documents except for those designated as confidential by laws and regulations. In these cases, the relevant laws and regulations are noted..

Rated “Excellent” in the comprehensive information disclosure evaluation by the Ministry of Public Administration and Security for four consecutive years  
Ranked top among 36 public institutions (92.8 points in 2020 → 97.2 points in 2021)

### Transparent Record Management

EWP selects critical records based on the four record management principles listed below, and preserves them efficiently and safely. We have reopened our archive at the headquarters to facilitate record browsing for interested internal and external parties. Additionally, we have enhanced our document management infrastructure to meet the needs of each business, and we operate an integrated library for all our offices. Finally, we improved the convenience of accessing and utilizing the records by integrating and digitizing previously-dispersed data.

### Four Principles of Record Management

|  |   |  |  |
|--|---|--|--|
| <b>Authenticity</b><br>Prohibit forgery of records | <b>Integrity</b><br>Digitize non-electronic documents | <b>Availability</b><br>Operate a records management system | <b>Reliability</b><br>Build an environment for record preservation |
|--|---|--|--|

### Voluntary Participation in the CDP

As a public energy company, EWP has participated in the carbon disclosure project (CDP) for 11 consecutive years to widely share our responsibility and willingness to respond to climate change. Although we are not an obligator, we earnestly and voluntarily participate in disclosing data to share our climate change response strategies and enhance management transparency.

#### Key Information Items Disclosed

| Category  | Key components   | Details   |
|---|--|---|
| Corporate information   | General corporate information  | History, facility status, etc.  |
| Governance  | Management strategies and mid-term 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 climate change response opportunities and related companies' responses | Measures to improve climate change awareness, regulations, etc.                                   |
| Emission information  | GHG emissions, etc.  | Emission information  |
| Validation and participation in ETS                             | External verification methods and participation status in ETS                        | Verification methods, ETS (Emission Trading Scheme) participation details, etc.                   |

**CDP Korea Committee:** Awarded CDP Korea Carbon Management Special Award (voluntary participation) (December 2021)  
**CDP rating:** B



05 | Risk Management

EWP operates a risk management system to preemptively respond to potential risks posed by the rapidly changing internal and external business factors. Each dedicated department monitors and responds to both financial and non-financial risks, and reports the current risk management status and results to the CEO through the Financial Performance Improvement Committee.

| Risk classification  | Financial risk  |  | Non-financial risk   |   |
|----------------------|---|--|--|---|
| KRI(Core risk index) | <b>Market risk</b> <ul style="list-style-type: none"><li>Exchange rate: Exceeding VaR for the foreign exchange rate</li><li>Fuel cost: Price of bituminous coal per unit power</li><li>Electricity market: Market price</li></ul> | <b>Liquidity risk</b> <ul style="list-style-type: none"><li>Interest rate: KTB interest rate</li><li>Vault cash: Target vault cash</li></ul> | <b>Operational risk</b> <ul style="list-style-type: none"><li>Power generation: Facility utilization rate</li><li>New business: Renewable power capacity</li></ul> | <b>Policy risk</b> <ul style="list-style-type: none"><li>Renewables: REC acquisition rate</li><li>Environment: Carbon emission compliance rat</li></ul> |
|                      | General management  |  |  |   |
|                      | Financial Performance Improvement Committee (CEO)   |  |  |   |
|                      | Dedicated departments   |  | Power Generation Division, Energy Transition Division, Renewable Energy Division, Carbon Neutral Division  |   |
| Regular monitoring   |   | Financial Risk Management Committee, etc.  |  | Risk Investment Review Committee, etc.  |
| Response procedure   |   | Regular monitoring > Risk level diagnosis > Response system activation > Operation of the Emergency Response Committee > Feedback            |  |   |

Financial Risk Managemen

EWP manages financial risks in accordance with the Financial Risk Management Guideline. The Financial Risk Management Committee deliberates and makes decisions on critical financial risk issues quarterly according to the guideline. In addition, the financial risk scale and management performance are reported to the CEO. To build an organized financial risk management system, we ensure management stability and integrity by developing and operating a system for foreign exchange and debt management.

Environmental Risk Management

EWP aims to continuously accomplish zero violations of environmental laws with our environmental risk management system. To meet the goal of carbon neutrality and provide low-carbon solutions, we share information regarding carbon neutrality and operate the EWP Carbon Credit Program.

Environmental Risk Management Process



Appendix

01 | Quantitative Data

02 | GRI Content Index

03 | TCFD / UNGC Advanced Level / SASB

04 | Independent Assurance Statements

05 | Memberships / Awards

01 | Quantitative Data

Summary of Consolidated Financial Statement

| Category  | Unit            | 2019   | 2020   | 2021    |
|---|-----------------|--------|--------|---------|
| Current Assets  | KRW 100 million | 13,496 | 13,313 | 16,031  |
| Non-Current Assets  |                 | 85,331 | 84,412 | 85,111  |
| Total Assets  |                 | 98,827 | 97,725 | 101,142 |
| Current Liabilities                                       |                 | 15,231 | 12,796 | 15,108  |
| Non-Current Liabilities                                   |                 | 35,877 | 37,787 | 37,315  |
| Total Liabilities   |                 | 51,108 | 50,583 | 52,423  |
| Paid-in Capital   |                 | 22,186 | 22,186 | 22,186  |
| Retained Earnings   |                 | 25,503 | 24,861 | 25,257  |
| Other Capital Components                                  |                 | -205   | -137   | 983     |
| Equity Attributable to Shareholders of the Parent Company |                 | 47,484 | 46,910 | 48,426  |
| Non-Controlling Interests                                 |                 | 235    | 232    | 293     |
| Total Equity  |                 | 47,719 | 47,141 | 48,719  |

Summary of Consolidated Comprehensive Income Statement

| Category  | Unit            | 2019   | 2020   | 2021   |
|---|-----------------|--------|--------|--------|
| Sales   | KRW 100 million | 48,960 | 41,879 | 47,960 |
| Sales cost  |                 | 46,192 | 41,127 | 45,528 |
| Gross Profit  |                 | 2,768  | 752    | 2,432  |
| Sales and Administrative Expenses   |                 | 1,539  | 1,602  | 1,602  |
| Operating Profit  |                 | 1,229  | -851   | 830    |
| Other Revenue   |                 | 185    | 310    | 340    |
| Other Expense   |                 | 41     | 107    | 58     |
| Other Costs (Loss)  |                 | 84     | -295   | -38    |
| Financial Income  |                 | 980    | 2,420  | 1,821  |
| Financial Cost  |                 | 2,057  | 3,032  | 2,880  |
| Profits/Losses Related to Investments by Affiliated Companies and Joint Companies |                 | 885    | 565    | 352    |
| Income (Loss) Before Tax Expenses   |                 | 1,264  | -989   | 367    |
| Income Tax Expenses   |                 | -151   | -547   | -22    |
| Net Income  |                 | 1,415  | -442   | 389    |

Economic Performance

| Category                              | Unit            | Item                            | 2019   | 2020    | 2021   |
|---------------------------------------|-----------------|---------------------------------|--------|---------|--------|
| Installed Capacity                    | MW              |                                 | 11,193 | 11,238  | 11,276 |
| Power Generation Volume               | GWh             | Fossil Fuel                     |        |         |        |
|                                       |                 | Coal                            | 41,456 | 36,371  | 33,621 |
|                                       |                 | LNG                             | 7,840  | 7,321   | 8,402  |
|                                       |                 | Oil                             | 1,247  | 1,504   | 1,494  |
|                                       |                 | Subtotal                        | 50,544 | 45,196  | 43,517 |
|                                       |                 | Renewable                       | 347    | 370     | 528    |
|                                       |                 | Company Overall                 | 50,891 | 45,566  | 44,045 |
| RPS Performance Rate                  | %               |                                 | 100    | 100     | 100    |
| Sales Volume                          | GWh             |                                 | 48,204 | 43,079  | 41,613 |
| Sales Revenue                         | KRW 100 million |                                 | 46,576 | 39,855  | 45,475 |
| Sales Price per Unit Power Generation | KRW/kWh         |                                 | 96.62  | 92.52   | 109.28 |
| Forced Outage Rate                    |                 |                                 | 0.011  | 0.00061 | 0.006  |
| Unplanned Loss Rate                   |                 |                                 | 0.019  | 0.0071  | -      |
| Operation Rate                        | %               |                                 | 87.44  | 85.51   | 84.26  |
| Utilization Rate                      |                 |                                 | 51.91  | 46.25   | 44.65  |
| Thermal Efficiency                    |                 |                                 | 39.55  | 39.43   | 39.26  |
| Power Station Internal Load           |                 |                                 | 5.56   | 5.83    | 5.97   |
| Renewable Energy R&D                  | KRW 100 million | R&D investment costs            | 41.5   | 43.1    | 56     |
| Executives & Employees                |                 | Salary, welfare costs           | 2,447  | 2,504   | 2,493  |
| Shareholders                          |                 | Dividends                       | 180    | -       | 49     |
| Creditors                             |                 | Interest expenses               | 1158   | 1111    | 1015   |
| Government                            |                 | Corporate taxes, local taxes    | 95     | 266     | 217    |
| Local Community                       |                 | Social contribution, donations  | 54     | 51      | 59     |
| Reinvestment                          |                 | Surplus excluded from dividends | 387    | 9,069   | 8,977  |



Environmental Performance

| Category                            | Unit                             | Item                  |                              | 2019    | 2020    | 2021    |
|-------------------------------------|----------------------------------|-----------------------|------------------------------|---------|---------|---------|
| GHG                                 | 1,000 tons (CO <sub>2</sub> -eq) | Scope 1               |                              | 38,944  | 34,817  | 32,711  |
|                                     |                                  | Scope 2               |                              | 74      | 89      | 96      |
|                                     |                                  | Scope 3               |                              | 11,888  | 10,910  | 9,956   |
| Energy Consumption                  | TJ                               | Energy Consumption    |                              | 469,057 | 420,898 | 403,326 |
|                                     | GJ/MWh                           | Energy Intensity      |                              | 9.22    | 9.24    | 9.16    |
| Fuel Usage                          | 10,000 tons                      | Coal                  |                              | 1,646   | 1,411   | 1,364   |
|                                     | 1,000 KL                         | Oil                   |                              | 318     | 382     | 377     |
|                                     | k ton                            | LNG                   |                              | 1,131   | 1,089   | 1,236   |
| Air Pollutant Emissions             | 10,000 tons                      | SOx                   |                              | 7,813   | 6,620   | 6,164   |
|                                     |                                  | NOx                   |                              | 9,724   | 6,796   | 5,632   |
|                                     |                                  | Dust                  |                              | 509     | 411     | 369     |
| Air Pollutant Emission Intensity    | ton/GWh                          | SOx                   |                              | 0.155   | 0.146   | 0.142   |
|                                     |                                  | NOx                   |                              | 0.192   | 0.150   | 0.129   |
|                                     |                                  | Dust                  |                              | 0.010   | 0.009   | 0.009   |
| Water Pollutant Discharge           | tons                             | COD                   |                              | 7       | 7       | 7       |
|                                     |                                  | SS                    |                              | 6       | 6       | 4       |
|                                     |                                  | T-N                   |                              | 15      | 18      | 16      |
|                                     |                                  | T-P                   |                              | 0.04    | 0.06    | 0.04    |
| Water pollutant Discharge Intensity | kg/GWh                           | COD                   |                              | 0.13    | 0.16    | 0.16    |
|                                     |                                  | SS                    |                              | 0.12    | 0.14    | 0.09    |
|                                     |                                  | T-N                   |                              | 0.3     | 0.41    | 0.37    |
|                                     |                                  | T-P                   |                              | 0.001   | 0.001   | 0.001   |
| Water                               | million tons                     | Seawater usage        |                              | 6,315   | 5,962   | 6,500   |
|                                     | 1,000 tons                       | Total water usage     |                              | 12,099  | 12,758  | 13,892  |
|                                     | 1,000 tons                       | Wastewater            | Wastewater generation volume | 3,798   | 4,137   | 3,807   |
|                                     |                                  |                       | Wastewater reuse volume      | 1,473   | 1,747   | 1,740   |
|                                     | %                                | Wastewater reuse rate |                              | 39%     | 42%     | 46%     |

| Category                         | Unit        | Item                |                  | 2019  | 2020  | 2021  |
|----------------------------------|-------------|---------------------|------------------|-------|-------|-------|
| Waste                            | 1,000 tons  | General waste       | Amount generated | 2,635 | 2,033 | 1,707 |
|                                  |             |                     | Reuse volume     | 2,227 | 1,777 | 1,632 |
|                                  |             |                     | Reuse rate       | 85    | 87    | 96    |
|                                  | tons        | Designated waste    | Amount generated | 1,102 | 2,226 | 752   |
|                                  |             |                     | Reuse volume     | 540   | 1,228 | 429   |
|                                  |             |                     | Reuse rate       | 49    | 55    | 57    |
| Desulfurized Gypsum and Coal Ash | 1,000 tons  | Desulfurized gypsum | Amount generated | 262   | 266   | 272   |
|                                  |             |                     | Reuse volume     | 268   | 250   | 248   |
|                                  |             |                     | Reuse rate       | 102   | 94    | 91    |
|                                  | 1,000 tons  | Coal ash            | Amount generated | 2,023 | 1,673 | 1,680 |
|                                  |             |                     | Reuse volume     | 2,211 | 1,766 | 1,605 |
|                                  |             |                     | Reuse rate       | 109   | 106   | 96    |
| Environmental Legislation        | No. of case | No. of violations   | 3                | 4     | 2     |       |
|                                  | 10,000 KRW  | Penalty             | 640              | 744   | 64    |       |

Social Performance

| Category   | Unit       | Classification                    |          | 2019  | 2020  | 2021     |
|--|------------|-----------------------------------|----------|-------|-------|----------|
| Total Number of Officers and Employees                   | Persons    |                                   |          | 2,470 | 2,466 | 2,503    |
| Status of Executives and Employees_By Type of Employment | Persons    | Full time                         | Total    | 2,470 | 2,466 | 2,503    |
|  |            |                                   | Female   | 316   | 328   | 339      |
|  |            |                                   | Male     | 2,154 | 2,138 | 2,164    |
|  |            |                                   | Korea    | 2,470 | 2,466 | 2,503    |
|  |            |                                   | Overseas | 0     | 0     | 0        |
|  |            |                                   |          |       |       |          |
|  |            | Part time                         | Total    | 48    | 30    | 11       |
|  |            |                                   | Female   | 1     | 0     | 0        |
|  |            |                                   | Male     | 47    | 30    | 11       |
|  |            |                                   | Korea    | 48    | 30    | 11       |
|  |            |                                   | Overseas | 0     | 0     | 0        |
|  |            | Non affiliated manpower           |          | 576   | 638   | 651      |
| Status of Executives and Employees_By Type of Work       | Persons    | Full time                         | Total    | 2,470 | 2,466 | 2,503    |
|  |            |                                   | Female   | 316   | 328   | 339      |
|  |            |                                   | Male     | 2,154 | 2,138 | 2,164    |
|  |            | Part time                         | Total    | 0     | 0     | 0        |
|  |            |                                   | Female   | 0     | 0     | 0        |
|  |            |                                   | Male     | 0     | 0     | 0        |
| Diversity in the BOD                                     | Persons(%) | Female                            |          | 1     | 1     | 1        |
|  |            | Male                              |          | 8     | 8     | 8        |
|  |            | Under the age of 30               |          | 0     | 0     | 0        |
|  |            | Aged between 30-50                |          | 2     | 1     | 1        |
|  |            | Over the age of 50                |          | 7     | 8     | 8        |
|  |            |                                   |          |       |       |          |
| Diversity of Executives and Employees                    | %          | Ratio of person with a disability |          | 3.9   | 3.7   | 4.3      |
|  | %          | Ratio of female                   |          | 13.9  | 13.3  | 13.5     |
|  | Persons    | Number of female managers         |          | 40    | 38    | 45.75    |
|  | %          | Ratio of female managers          |          | 5.8   | 5.8   | 6.9      |
|  | Persons    | Under the age of 30               |          | 1,439 | 1,444 | 393.25   |
|  |            | Aged between 30-50                |          | 378   | 374   | 1,418.25 |
|  |            | Over the age of 50                |          | 653   | 647   | 691.25   |

| Category                    | Unit             | Classification                         | 2019  | 2020  | 2021    |
|-----------------------------|------------------|--|-------|-------|---------|
| Number of New Hires         | Persons          | New hires                              | 91    | 55    | 94      |
|                             |                  | Female                                 | 20    | 14    | 25      |
|                             |                  | Male                                   | 71    | 41    | 69      |
|                             |                  | Under the age of 30                    | 69    | 36    | 81      |
|                             |                  | Aged between 30-50                     | 21    | 18    | 12      |
|                             |                  | Over the age of 50                     | 1     | 1     | 1       |
| Social Equality Recruitment | Persons          | New hires                              | 91    | 55    | 94      |
|                             |                  | Female                                 | 20    | 14    | 25      |
|                             |                  | Male                                   | 71    | 41    | 69      |
|                             |                  | Under the age of 30                    | 69    | 36    | 81      |
|                             |                  | Aged between 30-50                     | 21    | 18    | 12      |
|                             |                  | Over the age of 50                     | 1     | 1     | 1       |
|                             |                  | Non-metropolitan talent                | 55    | 33    | 64      |
|                             |                  | Relocated area talent                  | 18    | 8     | 18      |
|                             |                  | Person of national merit               | 9     | 21    | 11      |
|                             |                  | High school graduates                  | 13    | 4     | 10      |
| Employment Security         | Year             | Disabled                               | 2     | 1     | 6       |
|                             |                  | Average years of continued service     | 16.0  | 16.9  | 16.8    |
|                             |                  | Turnover rate                          | 1.09  | 1.80  | No data |
|                             |                  |  |       |       |         |
| Operation of the BOD        | Times            | Number held                            | 14    | 11    | 12      |
|                             | No. of cases     | Agenda resolved                        | 48    | 48    | 58      |
|                             | No. of cases (%) | Agenda revised                         | 3(6%) | 0(0%) | 1(2%)   |
|                             | No. of cases     | Agenda reported                        | 9     | 14    | 8       |
|                             | %                | Board of director attendance rate      | 92.1  | 99    | 99.1    |
|                             | %                | Non-executive director attendance rate | 94.3  | 98.2  | 98.3    |
|                             |                  |  |       |       |         |









Social Performance

| Category                               | Unit            | Classification   | 2019   | 2020   | 2021    |
|--|-----------------|--|--------|--------|---------|
| Family-friendly Management             | Persons         | On parental leave  | Male   | 14     | 24      |
|  |                 |  | Female | 59     | 62      |
|  |                 | Reinstated after parental leave  | Male   | 5      | 19      |
|  |                 |  | Female | 20     | 27      |
|  |                 | Number of those continuously serving 1 year or longer since reinstatement after parental leave | Male   | 13     | 30      |
|  |                 |  | Female | 68     | 69      |
|  | %               | Rate of reinstated after parental leave  | Male   | 100    | 95      |
|  |                 |  | Female | 95     | 96      |
|  |                 | Rate of those continuously serving 1 year or longer since reinstatement after parental leave   | Male   | 100    | 97.2    |
|  |                 |  | Female | 98.5   | 96.8    |
|  | Persons         | emale working under hour selection system  | 31     | 35     | 24      |
|  | Persons         | On flexible working system   | 2,346  | 2,447  | 2,418   |
|  | Hour            | Hours of overtime worked per employee  | 23.5   | 14.4   | 11.9    |
| Talent Development                     | Days            | Number of days on vacation   | 21.9   | 20.9   | 20.43   |
|  | Hour            | Average training hours per officer or employee   | 245    | 220    | 194     |
|  | KRW 1,000       | Educational expenses per officer or employee   | 3,790  | 3,170  | 3,749   |
|  | KRW 100 million | Education budget   | 92.5   | 82.1   | 92.2    |
|  | Persons         | Education beneficiary  | 56,547 | 68,767 | 74,229  |
|  | Point           | Female employee competency index   | 4.63   | 4.64   | No data |
| Executives and Employees' Satisfaction | Point           | Internal education satisfaction  | 86.9   | 78.9   | 79      |
|  | %               | Personnel system satisfaction  | 4.39   | 4.34   | 4.35    |
| Human Rights Policy and Procedures     | Persons         | Number of those who completed ethics education   | 2,313  | 2,408  | 2,331   |
|  |                 | Number of those who completed human rights education   | 2,387  | 2,259  | 2,200   |





| Category  | Unit                 | Classification  | 2019          | 2020   | 2021   |
|---|----------------------|---|---------------|--------|--------|
| Social Contribution                                     | KRW 100 million      | Social contribution expenditure   | 14            | 17     | 19     |
|   | Hour                 | Total hours volunteered   | 66,372        | 56,829 | 53,174 |
|   | Hour                 | Average hours volunteered per officer or employee                               | 30.78         | 24.38  | 20.85  |
| Integrity Assessment                                    | Point                | Anti-Corruption & Civil Rights Commission's survey results                      | 8.73          | 8.77   | 8.72   |
| Anti-corruption Policy Evaluation                       | Rating               | Anti-Corruption & Civil Rights Commission's survey results                      | 1             | 2      | 2      |
| Labor Union   | Persons              | Number of those subscribing to labor union                                      | 1,744         | 1,723  | 1,887  |
|   | %                    | Rate of labor union subscription  | 96.4          | 97.3   | 97.9   |
| Occupational Safety and Health                          | %                    | Officers and employees  | Hazard rate   | 0.04   | 0.00   |
|   | %                    |   | Fatality rate | 0      | 0      |
|   | %                    | Partner companies   | Hazard rate   | 0.05   | 0.11   |
|   | %                    |   | Fatality rate | 0      | 0      |
|   | No. of case          | Number of safety accidents  | 1             | 0      | 1      |
|   |                      |   |               |        |        |
| Win-win Growth  | KRW 100 million      | Amount of purchased products from corporation run by female leaders             | 302           | 437    | -      |
|   |                      | Amount of purchased technology development products                             | 575           | 403    | -      |
| Regional Support Project                                | Household            | Energy welfare for the marginalized   | 1,352         | 1,511  | 1,271  |
|   | KRW 100 million      | Purchase of Onnuri gift certificates  | 6.68          | 7.8    | 5.98   |
|   | KRW 100 million      | Purchase of social economy enterprise products                                  | 120           | 129    | 75.5   |
|   |                      | Cooperative   | 6.4           | 173    | 5.7    |
| Information Security Violation                          | No. of case          | Number of incidences of leakage, theft and loss of customer data to the outside | 0             | 0      | 0      |
|   |                      | Number of complaints related to customer personal information                   | 0             | 0      | 0      |
| Anti-corruption Violation                               | No. of cases persons | Anti-corruption violations  | 0             | 1      | 1      |
|   |                      | Disciplinary action/dismissal due to corruption                                 | 0             | 1      | 1      |
|   |                      | Contract termination and non-renewal contracts due to corruption                | 0             | 0      | 0      |
| Violation of Fair Competition and the Act of Fair Trade | No. of case          | Number of violation   | 0             | 0      | 0      |
|   | KRW                  | Fine amount   | 0             | 0      | 0      |


02 | GRI Content Index

| Topic                  | Disclosure |  | Page                  | Assurance | ISO 26000                | UN SDGs  |
|------------------------|------------|--|-----------------------|-----------|--------------------------|--|
| Organization Profile   | 102-1      | Name of the organization   | 8                     | v         | 6.3.10/6.4.1~5/6.8.5/7.8 |   |
|                        | 102-2      | Activities, brands, products, and services                           |                       | v         |                          |  |
|                        | 102-3      | Location of headquarters   |                       | v         |                          |  |
|                        | 102-4      | Location of operations   |                       | v         |                          |  |
|                        | 102-5      | Ownership and legal form   | 12~21                 | v         |                          |  |
|                        | 102-6      | Markets served   |                       | v         |                          |  |
|                        | 102-7      | Scale of the organization  | 8                     | v         |                          |  |
|                        | 102-8      | Information on employees and other workers                           | 86~87                 | v         |                          |  |
|                        | 102-9      | Supply chain   | 89                    | v         |                          |  |
|                        | 102-10     | Significant changes to the organization and its supply chain         | Same as previous year | v         |                          |  |
|                        | 102-11     | Precautionary principle or approach                                  | 80                    | v         |                          |  |
|                        | 102-12     | External initiatives   | 101                   | v         |                          |   |
|                        | 102-13     | Membership of associations   | 100                   | v         |                          |  |
| Strategy               | 102-14     | Statement from senior decision-maker                                 | 7                     | v         | 4.7/6.2/7.4.2            |  |
| Ethics and Integrity   | 102-16     | Values, principles, standards, and norms of behavior                 | 22~23                 | v         | 4.4/6.6.3                |   |
|                        | 102-17     | Mechanisms for advice and concerns about ethics                      | 74~77                 | v         |                          |  |
| Governance             | 102-18     | Governance structure   | 68                    | v         | 6.2/7.4.3/7.7.5          | <br> |
|                        | 102-21     | Consulting stakeholders on economic, environmental, and social topic | 69                    | v         |                          |  |
|                        | 102-22     | Composition of the highest governance body and its committees        |                       | v         |                          |  |
|                        | 102-23     | Chair of the highest governance body                                 | 68                    | v         |                          |  |
|                        | 102-24     | Nominating and selecting the highest governance body                 |                       | v         |                          |  |
|                        | 102-28     | Evaluating the highest governance body's performance                 | 70                    | v         |                          |  |
|                        | 102-31     | Review of economic, environmental, and social topics                 | 69                    | v         |                          |  |
|                        | 102-40     | List of stakeholder groups   | 77                    | v         |                          |  |
| Stakeholder Engagement | 102-41     | Collective bargaining agreements                                     | Coverage: 100%        | v         |                          |   |
|                        | 102-42     | Identifying and selecting stakeholders                               | 77                    | v         |                          |  |
|                        | 102-43     | Approach to stakeholder engagement                                   | 24, 77                | v         |                          |  |
|                        | 102-44     | Key topics and concerns raised                                       | 25                    | v         |                          |  |















| Topic              | Disclosure |  | Page  | Assurance | ISO 26000   | UN SDGs |  |
|--------------------|------------|--|---|-----------|-------------|---------|--|
| Reporting Practice | 102-45     | Entities included in the consolidated financial statements | 82  | v         | 5.2/7.3.2~4 |         |  |
|                    | 102-46     | Defining report content and topic Boundaries               | About this report                                   | v         |             |         |  |
|                    | 102-47     | List of material topics                                    | 25  | v         |             |         |  |
|                    | 102-48     | Restatements of information                                | Section on waste generation and utilization revised | v         |             |         |  |
|                    | 102-49     | Changes in reporting                                       | 25  | v         | 7.5.3/7.6.2 |         |  |
|                    | 102-50     | Reporting period   | About this report                                   | v         |             |         |  |
|                    | 102-51     | Date of most recent report                                 |   | v         |             |         |  |
|                    | 102-52     | Reporting cycle  |   | v         |             |         |  |
|                    | 102-53     | Contact point for questions regarding the report           |   | v         |             |         |  |
|                    | 102-54     | Claims of reporting in accordance with the GRI Standards   | v   |           |             |         |  |
|                    | 102-55     | GRI Content Index  | 90~93   | v         |             |         |  |
|                    | 102-56     | External assurance   | 96~99   | v         |             |         |  |

Topic-specific Standards

| Material Topic 1: Response to Climate Change |       |  |    |   |       |  |  |
|--|-------|--|----|---|-------|--|--|
| Management Approach                          | 103-1 | Explanation of the material topic and its boundary |    | v | 6.5.5 | <br><br><br> |  |
|  | 103-2 | The management approach and its components         | 26 | v |       |  |  |
|  | 103-3 | Evaluation of the management approach              |    | v |       |  |  |
| Emissions                                    | 305-1 | Direct (Scope 1) GHG emissions                     | 84 | v |       |  |  |
|  | 305-2 | Indirect (Scope 2) GHG emissions                   |    | v |       |  |  |
|  | 305-5 | Reduction of GHG emissions                         | 26 | v |       |  |  |

| Material Topic 2: Response to Environmental Laws and Regulations |       |  |    |   |     |   |
|--|-------|--|----|---|-----|---|
| Management Approach  | 103-1 | Explanation of the material topic and its boundary     |    | v | 4.6 |  |
|  | 103-2 | The management approach and its components             | 26 | v |     |   |
|  | 103-3 | Evaluation of the management approach                  |    | v |     |   |
| Environmental Compliance   | 307-1 | Non-compliance with environmental laws and regulations | 89 | v |     |   |



| Material Topic 3: Transition to Renewable Energy  |            |   |           |           |   |   |
|---|------------|---|-----------|-----------|---|---|
| Topic   | Disclosure |   | Page      | Assurance | ISO 26000   | UN SDGs   |
| Management Approach                               | 103-1      | Explanation of the material topic and its boundary                              | 26        | v         | 6.3.9/6.6.6~7/<br>6.7.8/6.8.1~2/6<br>.8.5/6.8.7/6.8.<br>9 |      |
|   | 103-2      | The management approach and its components                                      |           | v         |   |   |
|   | 103-3      | Evaluation of the management approach   |           | v         |   |   |
| Indirect Economic Impacts                         | 203-1      | Infrastructure investments and services supported                               | 14~21     | v         |   |   |
|   | 203-2      | Significant indirect economic impacts   | 50~51     | v         |   |   |
| Material Topic 4: Social Contribution             |            |   |           |           |   |   |
| Management Approach                               | 103-1      | Explanation of the material topic and its boundary                              | 27        | v         | 6.3.8/6.6.6   |      |
|   | 103-2      | The management approach and its components                                      |           | v         |   |   |
|   | 103-3      | Evaluation of the management approach   |           | v         |   |   |
| Local Community                                   | 413-1      | Social contribution activities  | 56~59     | v         |   |   |
| Material Topic 5: Wastewater and Waste Management |            |   |           |           |   |   |
| Management Approach                               | 103-1      | Explanation of the material topic and its boundary                              | 26        | v         | 6.5.3~4   |      |
|   | 103-2      | The management approach and its components                                      |           | v         |   |   |
|   | 103-3      | Evaluation of the management approach   |           | v         |   |   |
| Water and Effluents                               | 303-2      | Management of water discharge-related impacts                                   | 38~39, 84 | v         |   |   |
|   | 303-3      | Water withdrawal  |           | v         |   |   |
|   | 303-4      | Water consumption   |           | v         |   |   |
| Waste   | 306-3      | Waste generated   | 40, 85    | v         |   |   |
|   | 306-4      | Waste diverted from disposal  |           | v         |   |   |
|   | 306-5      | Waste directed to disposal  |           | v         |   |   |
| Material Topic 6: Air Pollutant Reduction         |            |   |           |           |   |   |
| Management Approach                               | 103-1      | Management Approach   | 26        | v         | 6.5.3   |       |
|   | 103-2      | The management approach and its components                                      |           | v         |   |   |
|   | 103-3      | Evaluation of the management approach   |           | v         |   |   |
| Emissions   | 305-7      | Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions | 35~36, 84 | v         |   |   |

| Material Topic 7: Job creation   |            |  |           |           |               |   |
|--|------------|--|-----------|-----------|---------------|---|
| Topic  | Disclosure |  | Page      | Assurance | ISO 26000     | UN SDGs   |
| Management Approach  | 103-1      | Explanation of the material topic and its boundary                 | 27        | v         | 6.4.3~7/6.6.5 | <div><div>1</div> </div> <div><div>2</div> </div> <div><div>8</div> </div> <div><div>10</div> </div>          |
|  | 103-2      | The management approach and its components                         |           | v         |               |   |
|  | 103-3      | Evaluation of the management approach                              |           | v         |               |   |
| Employment   | 401-1      | New employee hires and employee turnover                           | 87~88     | v         |               |   |
|  | 401-2      | Benefits provided to employees                                     |           | v         |               |   |
|  | 401-3      | Parental leave   |           | v         |               |   |
| Material Topic 8: Building a safety, health, and emergency response system |            |  |           |           |               |   |
| Management Approach  | 103-1      | Explanation of the material topic and its boundary                 | 27        | v         | 6.4.6         | <div><div>3</div> </div> <div><div>8</div> </div> <div><div>16</div> </div>   |
|  | 103-2      | The management approach and its components                         |           | v         |               |   |
|  | 103-3      | Evaluation of the management approach                              |           | v         |               |   |
| Occupational Health and Safety   | 403-1      | Occupational health and safety management system                   | 52~54, 89 | v         |               |   |
|  | 403-2      | Hazard identification, risk assessment, and incident investigation |           | v         |               |   |
|  | 403-5      | Worker training on occupational health and safety                  |           | v         |               |   |
|  | 403-6      | Promotion of worker health   |           | v         |               |   |
|  | 403-9      | Work-related injuries  |           | v         |               |   |
| Material Topic 9 Ethical management  |            |  |           |           |               |   |
| Management Approach  | 103-1      | Explanation of the material topic and its boundary                 | 27        | v         | 6.6.1~3       | <div><div>16</div> </div>  |
|  | 103-2      | The management approach and its components                         |           | v         |               |   |
|  | 103-3      | Evaluation of the management approach                              |           | v         |               |   |
| Anti-corruption  | 205-3      | Confirmed incidents of corruption and actions taken                | 89        | v         |               |   |
| Material Topic 10: : Finding new projects and expanding overseas business  |            |  |           |           |               |   |
| Management Approach  | 103-1      | Explanation of the material topic and its boundary                 | 26        | v         | 6.5.4~5       | <div><div>7</div> </div> <div><div>8</div> </div> <div><div>12</div> </div> <div><div>13</div> </div> |
|  | 103-2      | The management approach and its components                         |           | v         |               |   |
|  | 103-3      | Evaluation of the management approach                              |           | v         |               |   |
| Energy   | 302-1      | Energy consumption within the organization                         | 83~84     | v         |               |   |
|  | 302-4      | Reduction of energy consumption                                    |           | v         |               |   |
|  | 302-5      | Reduction in energy requirements of products and services          |           | v         |               |   |

03 | TCFD / UNGC Advanced Level / SASB

TCFD Index

The TCFD recommendations cover four key areas of information disclosure: governance, strategy, risk management, and metrics and targets, all with the goal of disclosing climate-related information. EWP intends to contribute to society’s international pursuit of climate information disclosure by reporting climate change response activities in accordance with the TCFD recommendations.

| Disclosures         |   | Page   |
|---------------------|---|--------|
| Governance          | a. Describe the board’s oversight of climate-related risks and opportunities.   | 45     |
|                     | b. Describe management’s role in assessing and managing climate-related risks and opportunities.  |        |
| Strategy            | a. Describe the climate-related risks and opportunities identified by the organization in the short, medium, and long term.                                       | 44~45  |
|                     | b. Describe the impact of climate-related risks and opportunities on the businesses, strategy, and financial planning of the organization.                        |        |
|                     | c. Describe the resilience of the organization’s strategy, in light of various climate-related scenarios, including a 2°C (or lower) scenario.                    | 46~47  |
| Risk Management     | a. Describe the organization’s processes for identifying and assessing climate-related risks.   | 80     |
|                     | b. Describe the organization’s processes for managing climate-related risks.  |        |
|                     | c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the overall risk management the organization.        |        |
| Metrics and Targets | a. Disclose the metrics that the organization uses to assess climate-related risks and opportunities in accordance with its strategy and risk management process. | 84     |
|                     | b. Disclose GHG emissions and the risks associated with Scope 1, Scope 2, and Scope 3   |        |
|                     | c. Describe the organization’s targets for managing climate-related risks and opportunities, and its performance against those targets.                           | 26, 29 |

UNGC Advanced Level

EWP joined the UN Global Compact in 2006 to enhance transparency in management and fulfill its social obligations. We comply with the ten principles of the UN Global Compact in four areas of human rights, labor, the environment, and anti-corruption.

| Classification  | No. | Principles  | Page  |
|-----------------|-----|---|-------|
| Human Rights    | 1   | Business should support and respect the protection of internationally proclaimed human rights                         | 62~65 |
|                 | 2   | Make sure thet they are not complicit in human rights abuses  |       |
| Labor           | 3   | Business should uphold the freedom of association and the effective recognition of the right to collective bargaining |       |
|                 | 4   | Business should eliminate all forms of forced and compulsory labor  |       |
|                 | 5   | Business should effectively abolish child labor   |       |
|                 | 6   | Business should eliminate discrimination in respect of employment and occupation                                      |       |
| Environment     | 7   | Business should support a precautionary approach to environmental challenges  | 28~47 |
|                 | 8   | Business should undertake initiatives to promote greater environmental responsibility                                 |       |
|                 | 9   | Business should encourage the development and diffusion of environmentally friendly technologies                      |       |
| Anti-Corruption | 10  | Business should work against corruption in all its forms, including extortion and bribery                             | 74~77 |

SASB Index

SASB (Sustainability Accounting Standards Board) refers to the industrial sustainability accounting standards announced by the US SASB that categorize 77 industries. The SASB standards define and standardize non-financial information ensuring the company’s non-financial performance that affects its sustainability can be compared to other companies in the same industry. Since developing and generating electricity resources are EWP’s main businesses, our reports are based on the Electric Utilities and Power Generators standard.

| Topic                                    | Code          | Accounting Metric  | Unit                           | Response of EWP  |
|--|---------------|--|--------------------------------|--|
| GHG Emissions & Energy Resource Planning | IF-EU-119a.1  | 1) Scope 1 emissions in Korea  | 1,000 tons-CO <sub>2</sub> -eq | 32,711   |
|  |               | 2) Proportion covered under emissions-limiting regulations in Scope 1  | %                              | 100  |
|  |               | 3) Proportion covered under emissions-reporting regulations in Scope 1   | %                              | 100  |
|  | IF-EU-110a.3  | Description of long-term and short-term strategies for reducing GHS emissions, GHG emission reduction targets, and performance against those targets | page                           | 26, 29, 44   |
|  | IF-EU-110a.4  | Goal achievement percentage of Renewable Portfolio Standard (RPS) target   | %                              | 100  |
| Air Quality                              | IF-EU-120a.1  | 1) NOx   | ton                            | 5,632  |
|  |               | 2) SOx   |                                | 6,164  |
|  |               | 3) Particulate matter  |                                | 369  |
| Water Management                         | IF-EU-140a.1  | Total water consumed   | 1000 m <sup>3</sup>            | 13,892   |
|  | IF-EU-140a.2  | Cases of non-compliance with water quantity, quality permits, standards, and regulations   | case                           | 0  |
|  | IF-EU-140a.3  | Description of water management risks and risk-mitigation strategies   | page                           | 38~39  |
| Coal Ash Management                      | IF-EU-150a.1  | The amount of coal combustion residuals (CCR) generated and the percentage recycled  | 1,000 tons                     | 1,680  |
|  |               |  | %                              | 96   |
|  | IF-EU-150a.2  | The total number of coal combustion residual (CCR) landfills classified according to potential hazard  | Number                         | 2 landfills (Dangjin Power Complex, Donghae Power Complex) |
| Workforce Health & Safety                | IF-EU-1320a.1 | Fatality rate  | %                              | 0  |



# 04 | Independent Assurance Statements

## Introduction

KoreaCSR (hereinafter referred to as the 'Assurer') has been commissioned to independently verify the 2022 Sustainability Report (hereinafter referred to as the 'Report') of Korea East-West Power Co., Ltd. The purpose of this assurance is to identify problems and potential areas for improvement in the overall reporting process, and also to point out any errors in content and/or data, ensuring that the final report constitutes a transparent and faithful transmission of the facts. The independent opinions contained within the assurance note any serious errors, exaggerations, or false information. These assurance statements however apply only to the information explicitly described in the scope of verification, and the ultimate responsibility for all information and/or opinions described in this report lies with Korea East-West Power Co., Ltd.

### Qualification and Independence of Assurer

The assurer did not participate in any way, shape, or form in the preparation of the Report. The assurance team comprises sustainable management and ESG experts, all with over 20 years of field experience. The team declares no conflict of interest, and no stake in Korea East-West Power Co., Ltd. that may hinder independence, autonomy, or fairness.

### Assurance Criteria

This assurance was conducted at the Moderate Level of the AA1000AS v3-Type2 standard to verify that the information and data presented in the report faithfully reflects the company's efforts and performance. This assurance statement also complies with the four principles of inclusivity, materiality, responsiveness, and impact, in accordance with AA1000AP (2018). In addition, ESG critical management issues were selected through an appropriate materiality analysis process, and the related content and performance were faithfully reported, as well as systematic review of KoreaCSR's verification principles of 5C, SASB, and TCFD. Finally, we confirmed that the Report was prepared in accordance with the core options of GRI Standards, a set of international standard guidelines for sustainability reports.

<KoreaCSR Validation Principle>



### <SASB: Electric Utilities & Power Generators Industry Standards>

- Greenhouse gas emissions and energy source planning, air quality, water resource management, coal ash management, safety, and health

### <TCFD>

- Governance, Strategy, Risk Management, Indicators, and Reduction Objectives

### <GRI Standards >

- Universal Standards
  - Organizational Profile (102-1 to 13)
  - Strategy (102-14)
  - Ethics and Integrity (102-16,17)
  - Governance (102-18,21,22,23,24,28,31)
  - Stakeholder Engagement (102-40-44)
  - Reporting practices (102-45-56)
- Topic-specific Standards
  - Economy: 201-1,2, 203-1,2 205-3
  - Environment: 302-1,4,5, 303-2,3,4, 305-1,2,5,7, 306-3,4,5,307-1
  - Society: 401-1,2,3, 403-1, 2, 5, 6, 9, 413-1

### Scope of Assurance

The scope of assurance for the Report is as follows.

- Based on the period from January 1 2021 to December 31 2021 and some data from the first half of 20222
- Sustainability management policies, strategies, goals, business, performance, and other key claims in the report
- Materiality analysis methods and processes; results of materiality analyses, and issues in materiality analysis
- Appropriateness and consistency of processes and systems for data collection, analysis, and review

The following are not included in the scope of the assurance for this report:

- Business-related information. This includes financial information, the firm's business portfolio(s), future energy business(es), and future technologies, among others
- Data and information on external organizations, such as partners and contractors of Korea East-West Power Co., Ltd.

### Assurance Method

The Assurer has used a methodology that complies with the assurance criteria and scope described above and employed this methodology to analyze the report and identify errors. The following describe core assurance activities conducted in evaluating the Report:

- Mechanisms in place for engagement and dialogue were reviewed to assess whether stakeholder expectations and requirements were faithfully reflected and appropriate responses to material issues undertaken
- Relevant data generation, collection and reporting processes and systems were reviewed
- To determine the appropriateness and effectiveness of material issues, the processes used to ascertain these issues (materiality analysis methods, for example) were evaluated
- Major decision-making processes and reporting systems were reviewed to assess the actual implementation of ESG activities and application of management activities
- To confirm the accuracy and transparency of the information and data presented in the Report, relevant evidence was requested, and the comparative analysis was conducted.
- Sustainability Strategy implementation process and systems were identified

- International standards including GRI, TCFD, SASB, UNGC, SDG, ISO 26000, are fully reflected and reported, based on internationally used and required sustainability and ESG reporting guidelines and indicators. Appropriate reasons and suggestions for improvement are provided to stakeholders to help identify and determine missing indicators

### Restrictions

In accordance with the scope of assurance above, the Assurer hereby verifies the reliability of the information and performance described in the Report, with stipulations, as shown below. The assurance focused on a review of reported content on an agreed-upon scope of assurance and does not constitute a holistic assurance with field verification. Financial data were verified through public audited financial disclosures, and the environmental and social performance data were verified through sampling.

This assurance opinion is intended for key executives and stakeholders of Korea East-West Power Co., Ltd. The results of the assurance analysis and recommendations are presented to improve sustainable management activities and the reliability of the data and reporting process in the future. The Assurer bears no liability of any sort, including joint liability, to any individual or organization for any decisions based on the opinion(s) of the assurance.

### Assurance Results and Opinion

the report shows that Korea East-West Power Co., Ltd. has established and managed 12 major ESG initiatives. Among these include programs for establishing sustainable governance, responding preemptively to eco-friendly leadership, realizing trusted social values, and establishing a transparent management system. Materiality issues (material ESG topics) cover stakeholder expectations and needs, and cover most of key areas essential to understanding the impact of business activities. It is desirable to select 10 important ESG topics, including carbon neutrality, environmental regulations, and renewable energy conversion, present a context for sustainability initiatives and managerial approaches, and to present a system and strategy for each topic through materiality analysis.

To summarize the results of the assurance, the Assurer confirms that the Report faithfully and fairly reflects the sustainable management activities and achievements of Korea East-West Power Co., Ltd. In terms of importance, we did not find any evidence that information and data contained in the Report by Korea East-West Power Co., Ltd. were improperly described, nor did we identify any serious errors. The Report is considered to have been prepared according to the core options of the GRI Standards and to have secured a reasonable level based on the Type 2 standard. The following are the assurance opinions on the four principles presented by AA1000AP (2018).

### Inclusivity: stakeholder communication, engagement, and reflection

Korea East-West Power Co., Ltd. confirmed that stakeholders are classified into internal stakeholders, including employees, labor unions, and subsidiaries, and external stakeholders, including citizens, partners, and related agencies, to comply with the inclusivity principle. In addition, it was confirmed that the opinions of stakeholders are reflected in management, with communication channels established between each stakeholder and communication activities promoted. Stakeholder expectations are ascertained through stakeholder participation and reviewed and managed in connection with the organization's strategic directions, key tasks, and material issues (material ESG topics).

### Materiality: Identification and reporting of material sustainability topics

Korea East-West Power Co., Ltd. confirmed that it identifies critical management issues (material ESG topics) through materiality analysis processes. Major sustainability issues are selected through media analysis, benchmarking, GRI and K-ESG, and material ESG topics are discovered through a materiality analysis process that includes media analysis, peer data analysis, and internal and external stakeholder surveys. Material ESG topics selected in this

way are prioritized through a process of stakeholder impact analysis and an analysis of business importance, and the company has in place three major ESG strategic directions and 12 key tasks. It is judged that the activities and achievements of Korea East-West Power Co., Ltd. on each issue were well reported.

### Responsiveness: Responding to material sustainability topics and related impacts

The Assurer confirmed that Korea East-West Power Co., Ltd. accurately reported policies, management systems, strategic directions, the performance of key initiatives and programs, and future plans for material issues through this Report that reflect stakeholder expectations. In addition, ESG management and working groups discuss directions for improvement and activities of the issue or report it to the ESG Committee, the top decision-making body, to be reflected in the ESG decision-making process at the enterprise level.

### Impact: The impact of organizational activities and material sustainability topics on the organization and stakeholders

Korea East-West Power Co., Ltd. is making efforts to identify and improve the social and environmental impact of major issues and management activities as described by stakeholders. The results of the impact analysis are reflected in management decisions to establish ESG response strategies, and the core features of these strategies are disclosed in the Report. In the future, it is necessary to analyze the impact of material issues by categorizing these impacts into profit, cost, and risk impacts.

### Improvements and recommendations

The Assurer makes the following recommendations to both improve the level of ESG management and the quality of the Report of Korea East-West Power Co., Ltd. This recommendation is an opinion and does not affect the conclusions of the assurance analysis described in the above material.

- To improve the reliability of ESG data and the quality of reporting, it is recommended that both the company as a whole and individual departments, divisions and offices within the company strengthen regular collection and monitoring of social and environmental data.
- Information on the actual operational status, discussion agenda, and performance of the company's total ESG governance system — which includes the board of directors, the ESG committee, and the ESG management and working group — should be disclosed, to better show how material ESG topics are being considered in major decision-making processes.
- The managerial approach should assess the results of the materiality analysis and the impact of business, costs, and risks on material ESG topics, as well as quantitative and specific improvement goals and milestones.
- It is necessary to develop integrated ESG strategies that take the form of an overarching mission and vision of the enterprise, and it is recommended that ESG evaluation and management support for partner companies (value-chain) be presented in detail.

October 28, 2022

Mark Myunghoon YOO

CEO



KoreaCSR



05 | Memberships / Awards

Memberships

| Memberships   | Purpose   | Date      |
|---|---|-----------|
| (Korea Power Plant Byproduct Recycling Association                                      | Conduct system reforms, policy responses, technological studies to promote coal ash recycling   | 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   | Conduct academic research on climate change and climate-related policy reforms  | Oct. 2019 |
| Korean Recycled Construction Resources Institute  | Identify new waste recycling methods and conduct research on the latest recycling technology  | Aug. 2019 |
| Korea Plant Industries Association  | Support Korean companies in entering international markets and exchange information among member companies                                  | Jun. 2019 |
| Korean Association for Supporting the SDGs for the United Nations (ASD)                 | Participate in information exchange and events for the SDGs in Korea and abroad   | Apr. 2019 |
| Korea Photovoltaic Industry Association   | Examine the technical trends and exchange information among member companies  | Mar. 2019 |
| Korean Society for Prognostics & Health Management                                      | Attend seminars and provide PHM technical consulting services and joint equipment utilization   | Jan. 2019 |
| Korea Emissions Market Association  | Activate the carbon trading market, respond to government policy changes, and cooperate with member companies                               | Jun. 2018 |
| Energy Transition Forum   | Contribute to energy transition policies and share energy transition activities with member companies and experts                           | Mar. 2018 |
| Korea Environment Engineers Association   | Exchange information on new environmental technologies and obtain the latest environmental information                                      | Jan. 2018 |
| Korea Wind Energy Industry Association  | Foster and develop the wind power industry by forming networks with wind power-related organizations  | Jun. 2016 |
| Jeonnam Wind Power Association  | Activate the wind power generation business and establish an environment conducive to attracting wind power equipment businesses in Jeonnam | Jun. 2014 |
| Korean Society for Quality Management   | Share academic papers on quality management in Korea and abroad   | Mar. 2014 |
| Maritime Rescue & Salvage Association   | Strengthen private-public cooperation in the prevention and response to maritime disasters and accidents                                    | May. 2013 |
| Korea New & Renewable Energy  | Exchange information on new and renewable energy  | Jan. 2013 |
| Korea Smart Grid Association  | Exchange smart grid information and examine industry trends   | Jul. 2012 |
| Korea Association of Small Business Studies   | Comply with government policies quickly and exchange academic information as a part of government policy for shared growth                  | Jul. 2011 |
| Association of the Electric Supply Industry of East Asia and the West Pacific (AESIEAP) | Obtain information for starting and expanding overseas business   | Feb. 2011 |
| Korea Carbon Capture and Storage Association  | Exchange information on carbon capture and storage  | Sep. 2010 |

| Memberships                                  | Purpose  | Date      |
|--|--|-----------|
| Power Generation Studies Institute           | Advance the power generation industry and identify collaborative research subjects   | Jul. 2010 |
| Korea Project Management Association         | Enhance project execution capabilities   | Mar. 2008 |
| Korea Electric Engineers Association         | Promote R&D of power technologies and power professional education and training  | Mar. 2008 |
| World Energy Congress                        | Build human and technological network with international energy organizations and member countries   | Jan. 2007 |
| UN Global Compact (UNGC)                     | Exchange sustainability information and participate in exchange events in Korea and abroad   | Jun. 2006 |
| The Electric Utility Cost Group (EUCCG)      | Obtain international power information and conduct benchmarks산   | Jan. 2006 |
| Edison Electric Institute (EEI)              | Obtain information for starting and expanding overseas business  | Mar. 2004 |
| Korean Standards Association                 | Introduce advanced quality management technique and spread quality management mindset  | Jan. 2003 |
| Korea Electric Association                   | Support the establishment and revision of technical standards for the electric industry, as well as the development of new codes to improve the reliability of power generation facilities | Sep. 2002 |
| The Korean Society of Mechanical Engineers   | Examine and exchange information on domestic and international trends in maniacal engineering  | Aug. 2002 |
| The Korean Institute of Electrical Engineers | KExamine and exchange information on domestic and international trends in electrical engineering   | Jun. 2002 |
| Korea Energy Foundation                      | Provide low-income families with energy assistance and scholarship programs  | May 2002  |

## Awards

EWP has recorded many achievements through its internal and external sustainable growth activities. We were the first public power company to publish a yearly sustainability report and have done so for 16 years. EWP has won the gold medal at the League of American Communication Professionals Awards for two consecutive years, a special prize for carbon management awarded by the Carbon Disclosure Project, and we were also awarded a special prize for ESG management by the government of Korea, reaffirming our reputation as a leading ESG management company. In addition, our effort to contribute to resolving issues in local communities was officially recognized by the Ministry of the Interior and Safety with a prize.

|  |   |  |   |
|--|---|--|---|
| LACP Vision Awards Gold Winner (2022, two consecutive years)   |    | Special Award for carbon management by the Carbon Disclosure Project (2022)  |    |
| Grand Prize for Safety at 2021 Global Standard Management Awards (2021, five consecutive years)                            |   | Ministry Prize for Community Problem Solving Platform by the Ministry of the Interior and Safety (2021)                      |   |
| Grand Prize for Environment at Hall of Fame for CEOs (2021)  |  | Top prize for Chemical Hazards Assessment System at the Public Data Utilization Contest (2021)                               |  |
| Fourteen winning teams for Presidential Prize at the 47th National Quality Circle Contest Major Awards [2021, record high] |  | Top prize for voluntary agreements for the total volume control of pollutants  |  |
| Grand Prize at the Korean Innovation Frontier Awards (2021, three consecutive years)                                       |  | Best prize for Safety Activities of Public Institutions (2021)   |  |
| Special Prize for Society at the Korean ESG Management Awards (2021)   |  | Ministry Prize for Covid-19 Responses and Economic Support for Communities by the Ministry of the Interior and Safety (2021) |  |

## Enrich the World with Clean Energy

## EWP Sustainability Report 2022

Details and PDF version of this report are available at our website. Should you have questions regarding this report, please contact us.

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