CLEAN ENERGY SMART KEPCO

KEPCO & Group Companies
Sustainaibility Report 2022

KEPCO

About This Report

Report Overive

Korea Electric Power Corporation(hereafter, KEPCO) and KEPCO group companies have published the Sustainability Report 2022 to share our ESG activities with stakeholders in a transparent manner. We have been producing an integrated report comprising the Sustainability Report and the Annual Report since 2019. This year, we are disclosing not just KEPCO's ESG performance, but also that of group companies based on the ESG taxonomy.

Reporting Guideline

This report adheres to the core standard of the Global Reporting Initiative(GRI) Standards. In creating this report, we also referred to ISO 26000, the principles of the UN Global Compact, and the international integrated reporting framework of the International Integrated Reporting Council(IIRC). The financial standards and definitions presented in this report align with the Korean-International Financial Reporting Standards(K-IFRS). In addition, this report contains recommendations from the Task-force on Climate-related Financial Disclosures(TCFD). The industry standards of the Sustainability Accounting Standards Board(SASB) were also taken into consideration in order to reflect material issues within the electric power industry.

Reporting Period

This report covers our activities and performance from January 1, 2021 to December 31, 2021. We have provided data for the first half of 2021 for qualitative activities related to several major issues. To identify changes in the trend for qualitative performance, we are disclosing data for the last three years (2019-2021). In accordance with our disclosure approach, the report presents both financial and non-finnacial information for the fiscal year. Furthermore, any information that does not meet the aforementioned standards has been labeled as such in the form of separate comments.

Scope of the Report

This report shares local and international ESG performance of KEPCO and six other power generation companies(Korea Hydro & Nuclear Power Co., Ltd; Korea South-East Power Co., Ltd; Korea Midland Power Co., Ltd; Korea Western Power Co., Ltd; Korea Southern Power Co., Ltd; and Korea East-West Power Co., Ltd.) (hereafter, KHNP, KOEN, KOMIPO, KOWEPO, KOSPO, and EWP) The financial information included herein is reported in accordance with the K-IFR's independent financial statements, and the contents of the consolidated standards are denoted by separate comments.

Independent Assurance

We commissioned a professional verification agency, Korea Sustainability Reporting Institute (KOSRI), for a third-party verification to ensure the report's internal and external reliability. Pages 220-221 of this report contain detailed information about the independent assurance.

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CEO Message

I'd like to express my heartfelt appreciation to all **shareholders**, **customers** and **other stakeholders** for your ongoing support and interest in what KEPCO and Group companies do.

In 2022, we have seen more severe climate change and supply-demand disruptions as a result of energy supply shocks. Rising fuel prices for natural gas, oil, and fossil fuel have pushed global energy companies to the verge of bankruptcy. KEPCO was also confronted with an unprecedented financial crisis.

To overcome the crisis, KEPCO and Group companies have undertaken high-level finance improvement measures as well as comprehensive management reform. At the same time, we continue to invest in infrastructure to ensure a stable supply of electricity, which is integral to our nation's economy. Furthermore, we are making every effort to prepare for a sustainable future in areas such as climate change responses and energy security.

We declared the objective of「Zero for Green」in 2021 in order to take the lead in carbon neutrality efforts. We have also been at the forefront of the transition sector by creating joint technology development strategies with group companies power group companies. This year, we want to carry out carbon neutrality initiatives under the leadership of the Carbon Neutrality Promotion Committee, while also broadening global cooperation to secure core technology. This year, we are publishing a comprehensive Sustainability Report in collaboration with group companies for the first time.

We have a long road ahead of us to achieve sustainability management in the face of increasing energy uncertainties. We must overcome challenges such as the financial crisis while also achieving carbon neutrality and energy security. Furthermore, we will continue to invest in the future to improve the global competitiveness of the electric power industry. To that end, we will prioritize and promote five key areas.

First, we will enhance financial soundness by taking extensive improvement.

KEPCO and Group companies created the Emergency Response Committee to aggressively pursue financial soundness initiatives, including self-rescue actions. We want to take every conceivable measure to strengthen the financial structure, including investment efficiency, asset rationalization, and profit maximization, while decreasing costs as much as possible within the range that does not threaten energy supply stability. In addition, we will build a cost-based power price system that accounts for cost-changing factors such as fuel, climate, and environmental costs.

Second, we will prioritize energy efficiency to attain effective carbon neutrality.

With energy efficiency improvement projects for energy-intensive sectors, small-to-medium-sized businesses, and root companies, we will drive effective carbon neutrality by converting the industry to low-consumption and high efficiency. We will also work together to adopt GHG reduction strategies with a broader implementation scope that includes indirect emissions (Scope 3). In addition, we will build a planned site that fully considers the system and location conditions for an orderly and scale renewable energy distribution. Energy security will be realized through the development of a green energy supply system that incorporates new carbon-free power sources like hydrogen and ammonia, as well as the development of small modular reactors (SMR).

Third, we will create a positive cycle of shared growth in the electric power industry.

We will enhance the overall competitiveness of the industry with the solidarity and cooperation among all stakeholders. We will strengthen open R&D cooperation by connecting industry, academia, and research, while also supporting technology commercialization through life-cycle technology development support for innovative companies. We will construct an Innovation Cluster with energy convergence complexes that will serve as a hub for innovative companies to demonstrate and test their new business models and technologies without barriers, thereby encouraging private-led innovation and growth.

Fourth, we will safeguard future growth engines by launching new business initiatives and reorganizing overseas businesses.

To help revitalize new, local energy projects, we will be more open and share power data, as well as leverage business platforms such as charging for electric vehicles. In addition, we will restructure our overseas project portfolio to include profitable eco-friendly businesses such as large-scale power transmission networks and renewable projects, hydrogen full-cycle projects, and carbon new-growth businesses. We will also actively encourage related local businesses to enter the global market with us. Furthermore, we will complete the UAE nuclear power plant project successfully. Based on such a milestone, we will construct a worldwide cooperation system to boost Korea's ability to secure nuclear power project deals.

Fifth, we will value and maintain safety and integrity above everything else.

Under the principle of "Safety First, Construction Next", we are fundamentally redefining the management paradigm around "Safety and Life". We will construct a complete safety system that eliminates all accident causes and possibilities to assure the safety of workers and citizens, as well as the stability of the energy supply. Furthermore, by aggressively implementing the Ethics Compliance Management Certification System(K-CP) and regularly certifying the anti-corruption management system in accordance with international certification(ISO 37001), we will take the lead in building a corporate culture of integrity.

KEPCO and Group companies will continue to innovate and communicate openly with stakeholders in order to grow as a "Global Energy Platform Company." I would appreciate your continued encouragement and support. Thank you.

November, 2022

KEPCO President & CEO **Cheong, Seung-Il**

Korea Hydro & Nuclear Power (KHNP)

Korea Hydro & Nuclear Power Co., Ltd. (KHNP) is Korea's largest electric power company, providing around 28% of total domestic electricity from nuclear, hydro, pumped water, and renewable energy.

While nuclear power plants emit nearly no CO2, they are large-scale, efficient energy sources. Hydro and pumped storage power plants are also green energy sources that do not damage the environment. Furthermore, we are at the vanguard of building an ecosystem of hydrogen economy by developing SMR, the new driving force of the nuclear industry, and core technologies for large-scale hydrogen production.

By operating nuclear power plants with the highest level of safety, KHNP will contribute to improving energy security and achieving carbon neutrality goals. In addition, we will lead sustainability management by exporting overseas nuclear power plants, strengthening the nuclear industry's ecosystem, supporting mutually beneficial local projects, and so on.
I'd appreciate your ongoing interest and support. Thank you.

Korea Hydro & Nuclear Power President & CEO **Whang Jooho**

Korea South-East Power (KOEN)

Even now, all employees of Korea South-East Power Co., Ltd. work passionately to contribute to the national economy and improve people's quality of life, with the pride and duty of 'lighting up one out of every ten households.' In order to meet people's desire for clean and safe electric power, KOEN aims to expand the development of renewable energy such as solar and wind power, as well as fuel cells. As a result, for the first time in Korea, we reached 1GW of renewable energy capacity, solidifying our position as the largest renewable energy provider.

Furthermore, by transferring our expertise and know-hows to local small- to medium-sized firms and creating solid cooperation partnerships, we will work continuously to develop the most ideal energy ecosystem of mutual progress and win-win. I'd like to ask for your support in our new journey to become the 'global smart energy leader' Thank you.

Korea South-East Power President & CEO **Kim Hoechun**

Korea Midland Power (KOMIPO)

Korea Midland Power Co., Ltd. formally began the first year of ESG management last year, and we started our commitment to ESG governance by forming the ESG Management Promotion Committee and ESG Management Office. In the environmental sector, we are working to reduce air pollutants like fine dust. In the social sector, we are reviving the economy and opening new channels for partner companies. In the governance sector, we are focusing on integrity management in accordance with the ISO Anti-Corruption Management System and the human rights management system.

Like this, KOMIPO will place ESG at the heart of all of its operations, transforming it into a company that fulfills its environmental and social responsibilities while serving as a model of fair and transparent governance. To that aim, we will lead ESG management in the energy sector, promote ESG management among stakeholders, and become a beloved energy government-enterprise by our citizens and future generations. Thank you.

Korea Midland Power President & CEO **Kim Hobin**

Korea Western Power (KOWEPO)

Korea Western Power Co., Ltd. has declared the ESG vision of 「From Energy, To Sustainable Green World!」 as part of its commitment to expand ESG management throughout the organization.

As all executives and employees at KOWEPO recognize respect for life and safety as the top priority, we have established and executed the comprehensive measure to improve field safety. We are securing new growth engines for the future based on unique technologies such as the world record of continuous operation of Integrated Gasification Combined Cycle (IGCC), the first and only system in Korea, and the development of hydrogen mixed power generation employing abandoned facilities. Moreover, we will foster a healthy corporate ecosystem through win-win cooperation with partner companies and SMEs. We will also actively help local businesses in order to solve local challenges. We shall fulfill our responsibilities as a government enterprise through ESG management based on public understanding and trust.

I ask all stakeholders for your constant support and encouragement for what we do at KOWEPO. Thank you.

Korea Wester Power President & CEO **Park Hyungduck**

Korea Southern Power (KOSPO)

Korea Southern Power Co., Ltd. is pursuing all available resources to provide a clean and stable power supply while making ESG management a key priority for public trust.

To produce cleaner energy, KOSPO is expanding renewable energy sources and environmentally friendly technologies like solar and wind power and fuel cells. Through the digitalization of facilities and initiatives for the convergence and integration of hydrogen, we will establish a global standard for the new energy industry. In order to lead the economic revival and advance our growth with the public, we will also create more high-quality jobs and pursue mutual growth with SMEs. We will eventually develop into a government energy enterprise that is trusted by all citizens.

Going forward, KOSPO promises to lead the global power generation industry. We humbly ask for your steadfast support and inspiration as we move toward sustainable management. Thank you.

Korea Southern Power President & CEO **Lee Seungwoo**

Korea East-West Power (EWP)

A government enterprise for the country and people, Korea East-West Power Co., Ltd. has been working toward carbon neutrality through sustainable green development and responding to environmental, social, and governance-related risks by fulfilling social values and innovating the management.

Now, we live in an era where preserving the ecosystem and climate system and upholding ethical business practices and social responsibilities have become the backbone of a company's sustainable growth. As a result, EWP is creating renewable energy models that engage local communities, such as agricultural solar energy, and acquiring future technologies, like virtual power plants and hydrogen-mixed power plants. In this changing environment, we will keep looking for what our employees need to do and the best way to do it.

I sincerely ask for your support and encouragement as EWP takes bold steps toward a sustainable future. Thank you.

Korea East-West Power President & CEO **Kim Youngmoon**

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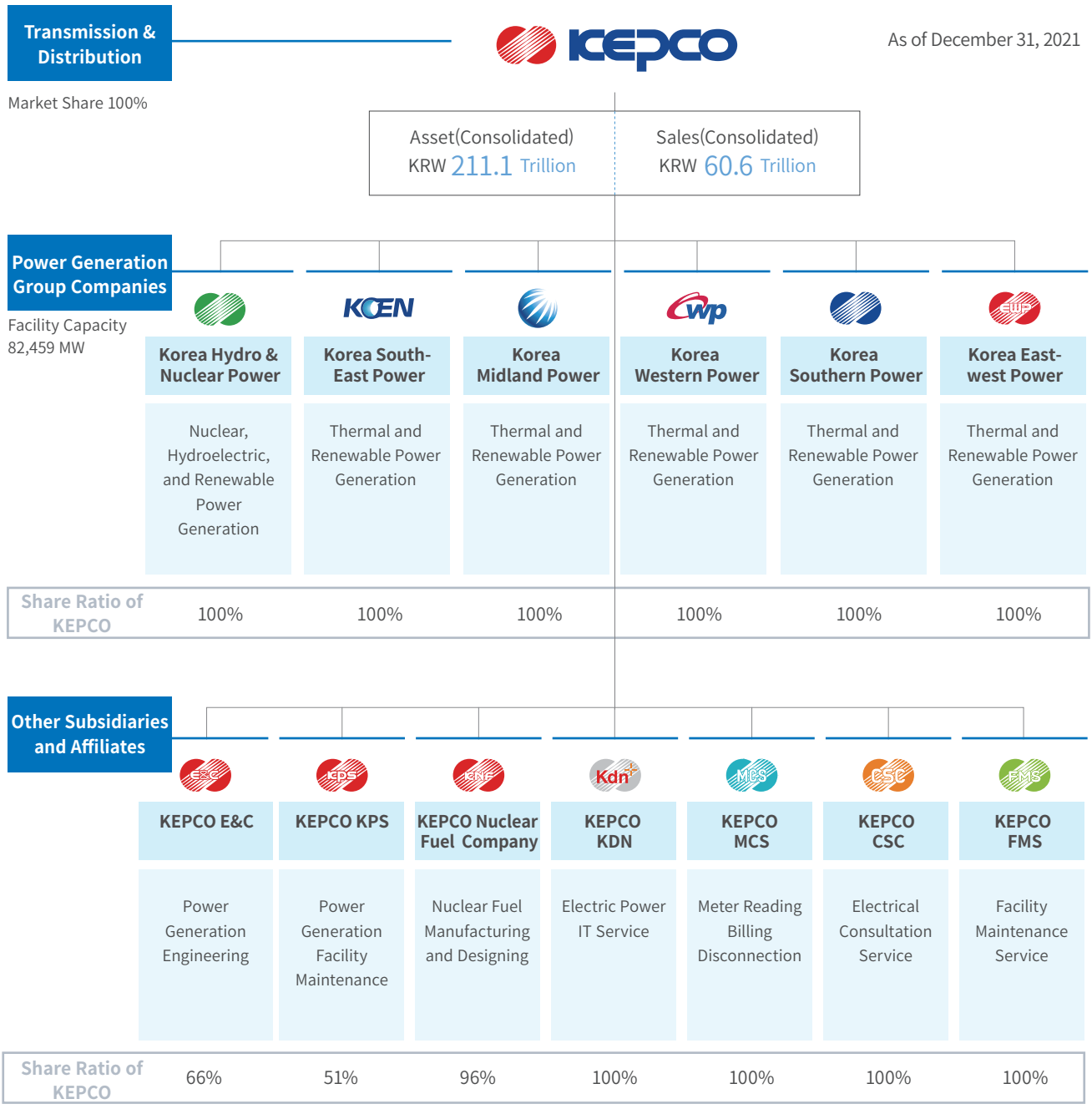
KEPCO Group Companies Profile

KEPCO and Group Companies Overview

Six group companies — Korea Hydro & Nuclear Power, Korea South-East Power, Korea Midland Power, Korea Western Power, Korea Southern Power, and Korea East-West — as well as subsidiaries and businesses involved in power generation engineering, maintenance, power IT, and consulting services are all part of KEPCO and its group of companies. Through the Korea Power Exchange, KEPCO purchases the energy produced by the group companies and sells it to customers. KEPCO and the group companies run autonomously based on their own systems for responsible management while discussing various issues for shared goals and cooperating for a sustainable growth of the power industry.

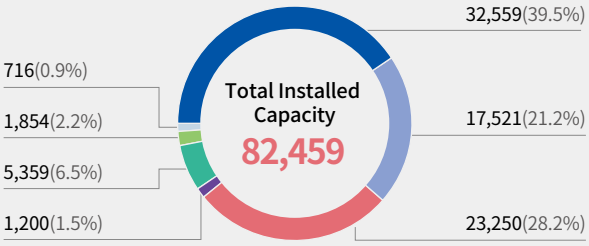


Status of the Electric Power Industry in 2021

In order to prepare for an increase in power demand and provide high-quality electricity to our customers, we and other power group companies are preparing a timely expansion of power facilities and constructing an optimal power system plan. As of 2021, we had consistently provided high-quality electricity to 24,523 thousand households across the country. Our yearly cumulative electricity sales was 533,431GWh, with a 54.7% share for industrial use, 22.3% for general use, 15.0% for residential use, and 8.0% for other sectors.

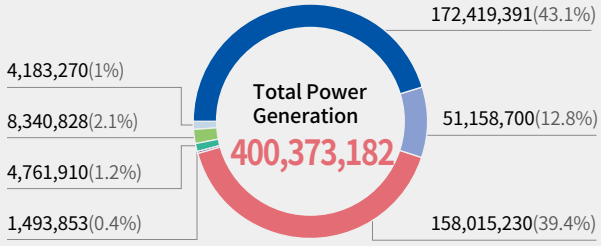
Installed Capacity

(Unit : MW)



Power Generation

(Unit : MWh)



Nuclear Power · Coal · LNG/Combined Thermal Power · Heavy Oil · Hydroelectric Power · New & Renewable Energy · Others

Transmission Line Length

765kV · 345kV · 154kV · 66kV · 180kV(HVDC)

(Unit : C-km)

	765kV	345kV	154kV	66kV	180kV(HVDC)	Total
2019	1,025	9,801	23,264	231	119	34,440
2020	1,025	9,813	23,485	231	111	34,665
2021	1,024	9,899	23,668	231	101	34,923

Distribution Line Length

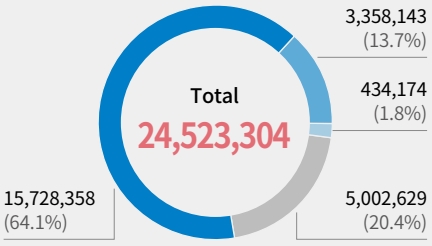
High voltage (over 600 V) · Low voltage (600V and below)

(Unit : C-km)

	High voltage (over 600 V)	Low voltage (600V and below)	Total
2019	237,242	267,161	504,403
2020	242,519	272,260	514,779
2021	247,846	277,326	532,348

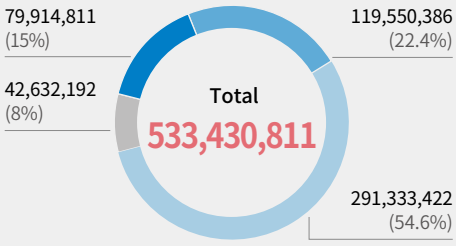
Number of Households by Contract Type

(Unit : Household)



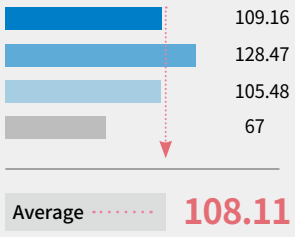
Power Sales by Contract Type

(Unit : MWh)



Power Sales Price

(Unit : KRW/kWh)



Residential · General · Industrial · Others

Power Purchase

(Unit : MWh)

Electricity Market 535,985,491

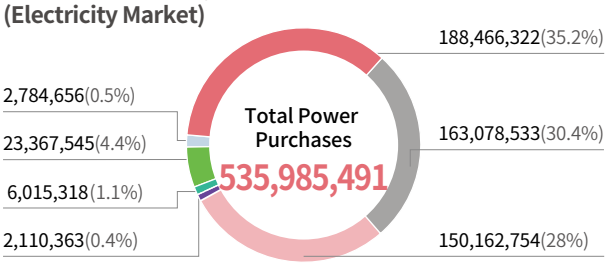
\+

PPA 18,211,454

Total Power Purchases
554,196,945

Power Purchases by Power Source (Electricity Market)

(Unit : MWh)



KEPCO Profile

KEPCO Overview

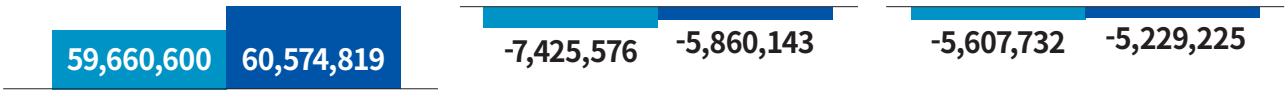
KEPCO is a corporation founded under the Korea Electric Power Corporation Act with the goal of stabilizing electricity supply and demand and contributing to the national economy's development. As a result, it is classified as a market-type public company. KEPCO is engaged in the development of power resources, power production, transmission, transformation, distribution, related sales, research, and technology development, and investment in or contribution to overseas business. On August 10, 1989, KEPCO was listed on the Korea Exchange, and on October 27, 1994, KEPCO's Securities Depository was listed on the New York Stock Exchange in the United States.

As of December 31, 2021

Company Name	Korea Electric Power Corporation (KEPCO)	**CEO**	Cheong Seung-il
Date of Establishment	January 26, 1898	**Headquarter Location**	55, Jeollyeok-ro (120, Bitgaram-dong) Naju-si, Jeollanam-do, Republic of Korea
Open Market	Korea Exchange (1989, KRX), New York Stock Exchange(1994, NYSE)		
Business Areas	Power resource development, power generation, transmission, substation, distribution, sales, R&D, technology development, overseas development, etc.		
Webpage	http://www.kepco.co.kr		

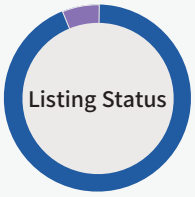
Separate Consolidated

(Unit : KRW 1 Million)



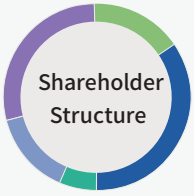
Sales | Operating Profit | Net Income

Stock Listing Status



Number of Shares Issued (Common Shares): Total 641,964,077shares

- Underlying shares Listing : 95.96%
  - Listed Exchange: Korea Exchange (KRX)
  - Listing Date: August 10, 1989 (Security code: 015760
- American Depositary Receipt (ADR) : 4.04%
  - Listed Exchange: New York Stock Exchange (NYSE)
  - Listing Date: October 27, 1994 (Security code: KEP)



Government	18.20%
Korea Development Bank	32.90%
National Pension Fund	5.92%
Foreign Investors	14.19%
Others	28.79%

Credit Rating Status

Domestic	International
AAA NICE Investors Service	Aa2 Moody's
A1 Korea Investors Service	AA S&P
A1 Korea Ratings	AA- Fitch

KEPCO Business Status

KEPCO operates the domestic transmission, distribution, power sales, and demand management, as well as overseas power generation, transmission and distribution, new energy business, and grid businesses. In Korea, we are developing and operating a multi-loop transmission and substation infrastructure that will reliably connect the whole country. We continue to focus on the development of power distribution businesses such as expanded distribution facilities and enhanced reliability for ideal quality energy power supply in order to respond to rising power consumption. Furthermore, we purchase electricity produced by KEPCO group companies, private power generation companies, and district electric operators, from the Power Exchange and sell it to customers, all while developing new services to meet customer needs and managing power demand to encourage customers to consume in a reliable manner. Overseas, we are expanding the market by securing orders for thermal power, nuclear power, and new and renewable energy construction and operation projects, and also by concentrating our efforts in central areas. Furthermore, we are actively engaged in many domains such as transmission and distribution network construction, consulting, automation, remote meter reading, and skilled worker training utilizing our technology and know-how in domestic transmission and distribution. We are reorganizing our overseas project portfolio, in particular, on new and renewable energy, such as solar and wind power, as well as grid and low-carbon new projects.

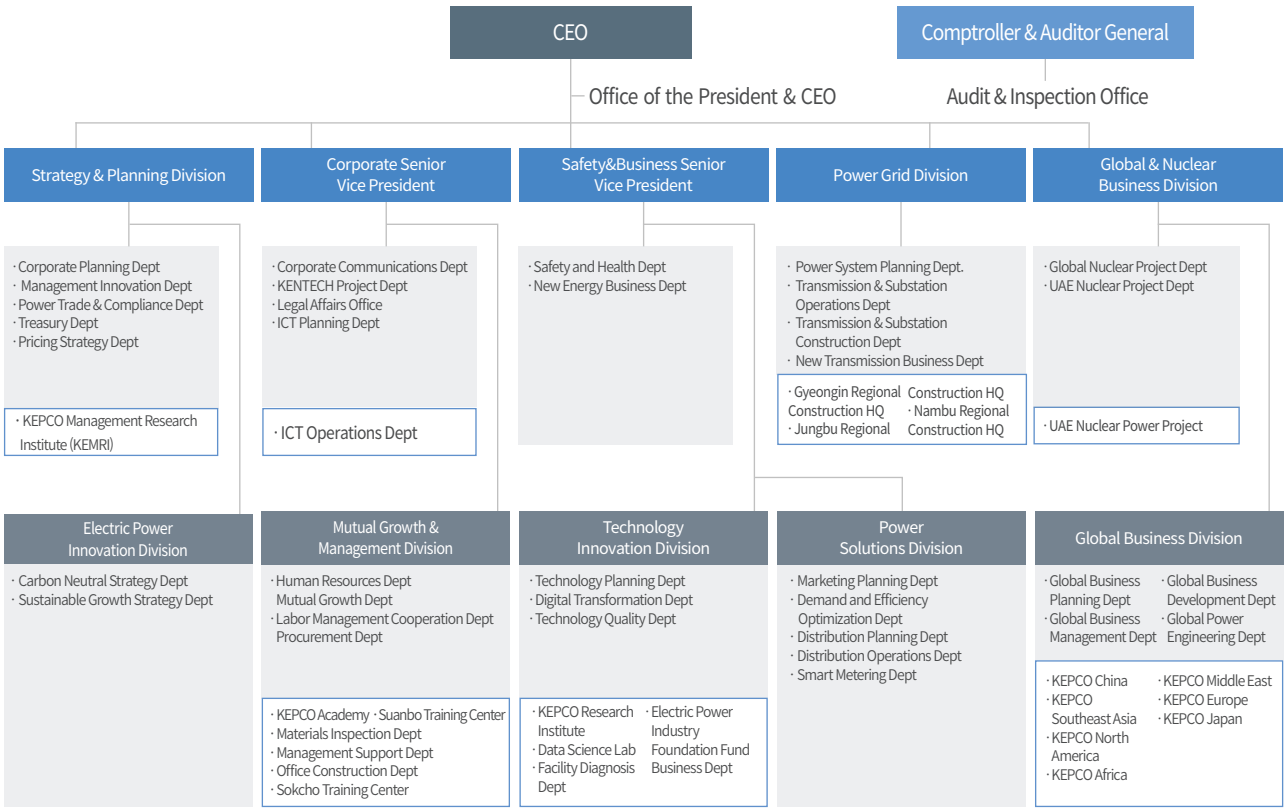
Mid-to-Long-Term Strategy

KEPCO's strategy goals include achieving optimal grid connections that represent the national power mix, reaching a ROA of 2.0%, generating KRW 4.2 trillion in annual growth business sales, securing 602 core technologies, and attracting 1,250 energy valley companies. We have developed and implemented five strategic directions to that aim. To achieve goals in a systematic manner, we have defined strategic and action agendas, as well as key performance indicators (KPI) to help understand and monitor implementation performance using quantitative metrics.

Vision	**KEPCO – A Smart Energy Creator**				
Strategic Goals	**Optimization of Grid Connections Reflecting National Power Mix**	**ROA 2.0 %**	**KRW 4.2 Trillion Annual Growth Business Sales**	**Secure 602 Core Technologies**	**Attract 1,250 Energy Valley Companies**
Strategic Directions	**Lead Carbon Neutrality**	**Strengthen Core Businesses**	**Pioneer Growth Business**	**Secure Core Capacities**	**Lead Sustainability Management**
	① Implement the future power grid for carbon neutrality ② Distribute clean energy and manage strategic demand	③ Lead the future market and boost sales competitiveness	④ Lead the domestic platform-based new energy industry ⑤ Achieve great transformation in overseas projects toward eco-friendliness and core capacities	⑥ Develop carbon-neutrality technologies and create a R&D ecosystem ⑦ Pursue digitalization across the value chain	⑧ Establish high-credibility, high-performance management with respect for people and the environment

Organization Status

KEPCO reorganized the company to achieve safety-first, responsible management and to strengthen carbon neutrality actions in the power electricity industry. First, the title of Chief Business Operations Officer was changed to Chief Safety & Business Officer. Furthermore, the Safety & Health Department and the New Energy Business Department have been placed directly under the Chief Safety & Business Officer to carry out responsible management that prioritizes safety above all else, enhancing the potential of new and renewable and new businesses. In addition, the Electric Power Innovation Division, comprised of the Carbon Neutral Strategy Department and the Sustainable Growth Strategy Department, was established to establish carbon neutrality goals and action plans, as well as to serve as a control tower for coordinating company-wide policies.



Regional HQs	Seoul, Namseoul, Incheon, North Gyeonggi, Gyeonggi, Gangwon, Chungbuk, Daejeon-Sejong-Chungnam, Jeonbuk, Gwangju-Jeonnam, Daegu, Gyeongbuk, Busan-Ulsan, Gyeongnam, Jeju

Group Companies Profile

Korea Hydro & Nuclear Power Co., Ltd. (KHNP)

Korea Hydro & Nuclear Power Co., Ltd. operates power generation facilities with a total capacity of 28,612MW, accounting for about 21.4% of total electric power generation in Korea. KHNP operates 24 nuclear power plants, 21 hydroelectric power plants(excluding small hydro power plants), and 16 pumped-storage power plants.

To achieve the vision of "Reliable Global Energy Leader, KHNP." KHNP is increasing the competitiveness of nuclear power plants while prioritizing safety. In addition, through collaboration with new growth businesses, KHNP aspires to become a clean energy leader. KHNP is growing its overseas nuclear power plant projects and operations in many regions of the world, including the Czech Republic and Poland, after winning the Eldaba nuclear power plant project in Egypt in 2022.

Financial Position (Separate)

Total Assets	Total Sales	Total Employees
KRW 64,638.7	KRW 9,324.4	12,340

Power Facilities Capacity (MW)

Power Generation Performance (GWh)

Hydro Power · Pumped-storage Power · Nuclear Power · New and Renewable

Korea South-East Power Co., Ltd. (KOEN)

Korea South-East Power Co., Ltd. (KOEN) operates five power plants across the country with a total capacity of 9,294MW: Yeongheung Power Division, Samcheonpo Power Division, Bundang Power Division, Yeongdong Eco Power Division, and Yeosu Power Division. This equates to around 6.9% of all power generation capacity in Korea.

KOEN strives to distribute clean energy by developing and operating Korea's first offshore wind farm and large-scale solar power plants, as well as operating power generation facilities based on digital technologies in a secure manner. Through new renewable energy projects, as well as large investment and private-public partnership initiatives, KOEN also encourages the mutual growth of local communities and small-to-medium-sized enterprises.

Financial Position (Separate)

Total Assets	Total Sales	Total Employees
KRW 11,487.3	KRW 5,188.9	2,811

Power Facilities Capacity (MW)

Power Generation Performance (GWh)

Hydro Power · Coal-fired Power · Internal combustion and Combined, etc. · New and Renewable

Korea Midland Power Co., Ltd. (KOMIPO)

Korea Midland Power Co., Ltd. (KOMIPO) operates seven power plants in Seoul and Incheon, Sinseocheon, Boryeong, Jeju, Shin Boryeong, and Sejong, with a total capacity of 10,755MW, accounting for 8% of Korea's power generation capacity. KOMIPO provides high quality, stable electricity power using thermal power (coal, LNG, and heavy oil), wind power, solar power, SRF, and fuel cell power generation based on power plant building and operation technologies. KOMIPO has implemented mid-to-long-term business strategies to develop future values. Along with them, KOMIPO is promoting the following initiatives to lead global ESG management by 2025, based on the ESG Management Mid-term Roadmap: 'Eco-friendly based Innovative Growth and Public Safety,' 'Sustainable Community of Inclusivity and Mutual Growth,' and 'Public Understanding through Transparent Management.'

Financial Position (Separate)

Total Assets	Total Sales	Total Employees
KRW 13,756	KRW 5,263.3	2,669

Power Facilities Capacity (MW)

Power Generation Performance (GWh)

Hydro Power · Coal-fired Power · Internal combustion and Combined, etc. · New and Renewable

Korea Western Power Co., Ltd. (KOWEPO)

Korea Western Power Co., Ltd. (KOWEPO) operates five power plant divisions around the country, generating approximately 11,440MW, or 8.5% of total power generation capacity in Korea: Taean Power Division, Pyeongtaek Power Division, West Incheon Power Division, Gunsan Power Division, and Gimpo Power Plant Construction Division. KOWEPO's mission is to generate reliable and clean energy while also contributing to public growth in society. To that purpose, KOWEPO has been in the forefront of the eco-friendly and low-carbon energy sector, accelerating efforts toward carbon neutrality. Furthermore, KOWEPO has committed to not only advancing the company's sustainable growth based on financial stability by enhancing efficiency and diversifying its portfolio, but also to creating public values based on public trust.

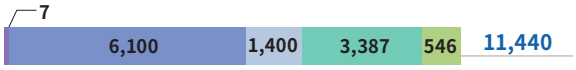
Financial Position (Separate)

Total Assets	Total Sales
KRW 10,822.8	KRW 4,970.8

Workforce (Current)

Total Employees: 2,696

Power Facilities Capacity (MW)



Power Generation Performance (GWh)

Hydro Power · Coal-fired Power · Oil/Gas · Internal combustion and Combined, etc. · New and Renewable

Korea Southern Power Co., Ltd. (KOSPO)

Korea Southern Power Co., Ltd. (KOSPO) operates power plants with a total capacity of 11,476MW, accounting for 8.65 percent of the capacity of all domestic power generation facilities. KOSPO operates eight power plant generation divisions, including Hadong Thermal Power Site Division, Shinincheon Combined Cycle Power Site Division, Busan Combined Cycle Power Site Division, Namjeju Thermal Power Site Division, among others. KOSPO intends to lead the transition to low-carbon power generation systems and future energy enterprises by leveraging LNG power plant building and operation capabilities, as well as wind power production operation know-how. Furthermore, in order to become a responsible public company for environmentally friendly power generation and a healthy society, KOSPO has established seven core ESG goals and twelve strategic agendas centered on clean energy, inclusion, and trust, all of which are expected to be achieved by 2030.

Financial Position (Separate)

Total Assets	Total Sales
KRW 11,351	KRW 5,672

Workforce (Current)

Total Employees: 2,649

Power Facilities Capacity (MW)

Power Generation Performance (GWh)

Hydro Power · Coal-fired Power · Internal combustion and Combined, etc · New and Renewable

Korea East-West Power Co., Ltd. (EWP)

Korea East-West Power Co., Ltd. (EWP) operates five power plants throughout the country, including Ulsan Power Division, Donghae Bio Power Division, Ilsan Power Division, and Shinhonam Construction, generating 10,776MW of power, or 8.0% of total domestic power capacity, and supplying electricity in a stable manner. EWP continues to increase the competitiveness of its core industries, such as zero-accident operation of power facilities, better site safety management, and driving the transition to environmentally friendly energy sources. Furthermore, EWP has continually improved key capacities in areas of power operation such as safety and environmental management, new and renewable energy power generation, while evolving into a "Solution Provider" capable of sharing EWP's values and know-how.

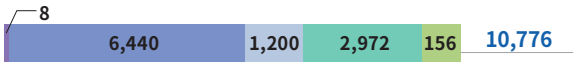
Financial Position (Separate)

Total Assets	Total Sales
KRW 9,895.8	KRW 4,743

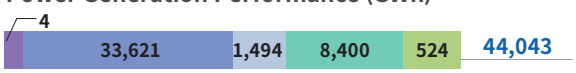
Workforce (Current)

Total Employees: 2,440

Power Facilities Capacity (MW)



Power Generation Performance (GWh)



Hydro Power · Coal-fired Power · Oil/Gas · Internal combustion and Combined, etc · New and Renewable

Value Chain of the Electric Power Group

In the era of the Fourth Industrial Revolution, where intelligence and connectivity are emphasized, the electric power industry's value chain is shifting from the existing power generation, transmission and distribution, and sales to an integrated business structure that can demonstrate convergence capabilities between different types of businesses. This is a shift toward a 'Platform-based' environment. As a result, KEPCO and group companies are laying a solid basis with new value chains to meet the expanding demand for 4IR.

INPUT

Financial Capital

Total Assets	KRW **211.1** Trillion
Total Capital	KRW **65.3** Trillion

Human Capital

Number of Employees	**49,158** Persons
Employee Training Hours	**4,583,727** Hours
Employee Training Expenses	KRW **101.1** Billion

Intellectual Capital

R&D Personnel	**1,404** Persons
R&D Expenses	KRW **876.2** Billion

Manufactured Capital

Purchased Electricity	**554,197** GWh
Tangible Assets	KRW **73.9** Trillion

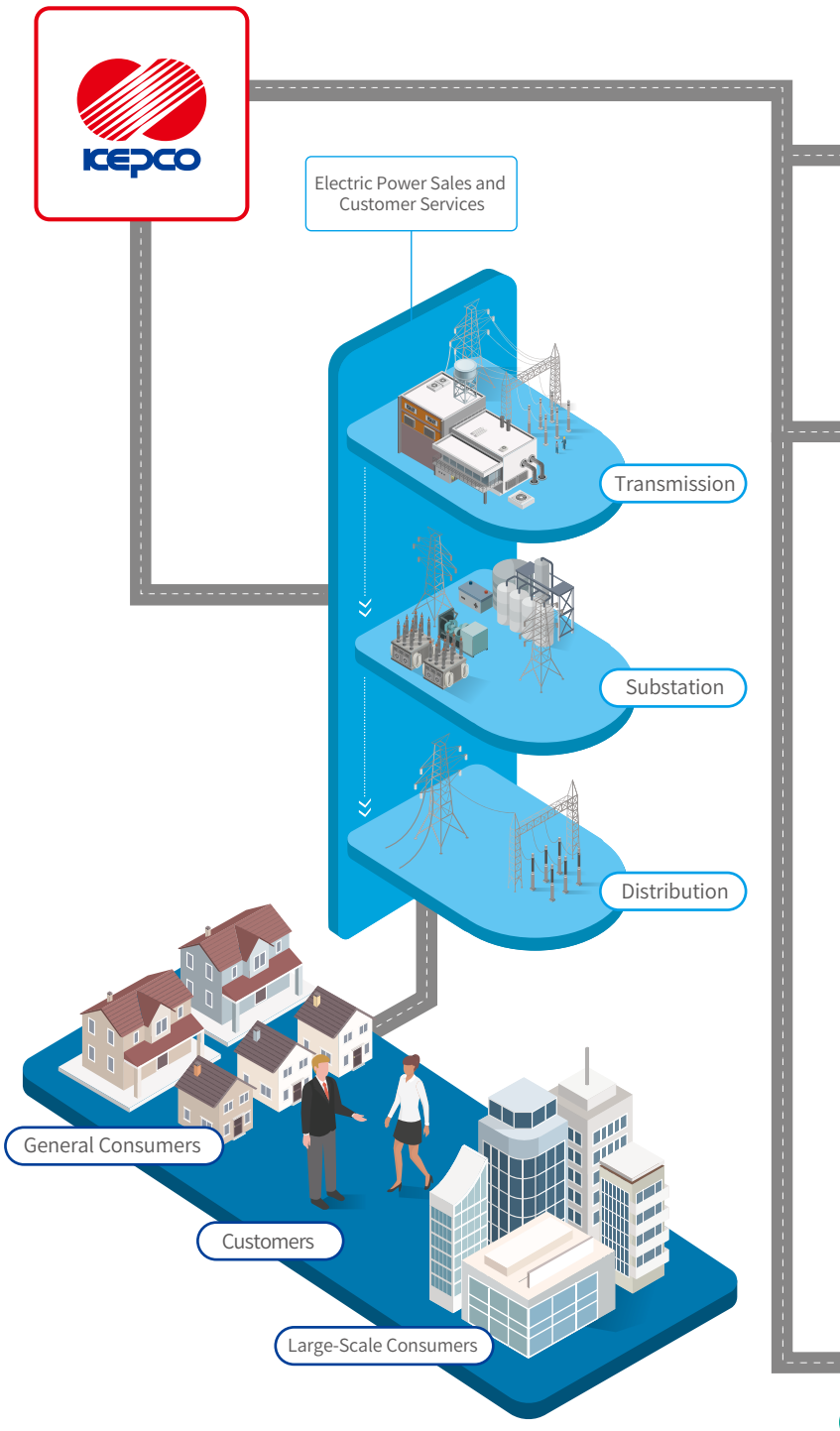
Natural Capital

Energy Usage	**2,181,005** TJ
Water Usage	**56,660,617** m^3

Social and Relationship Capital

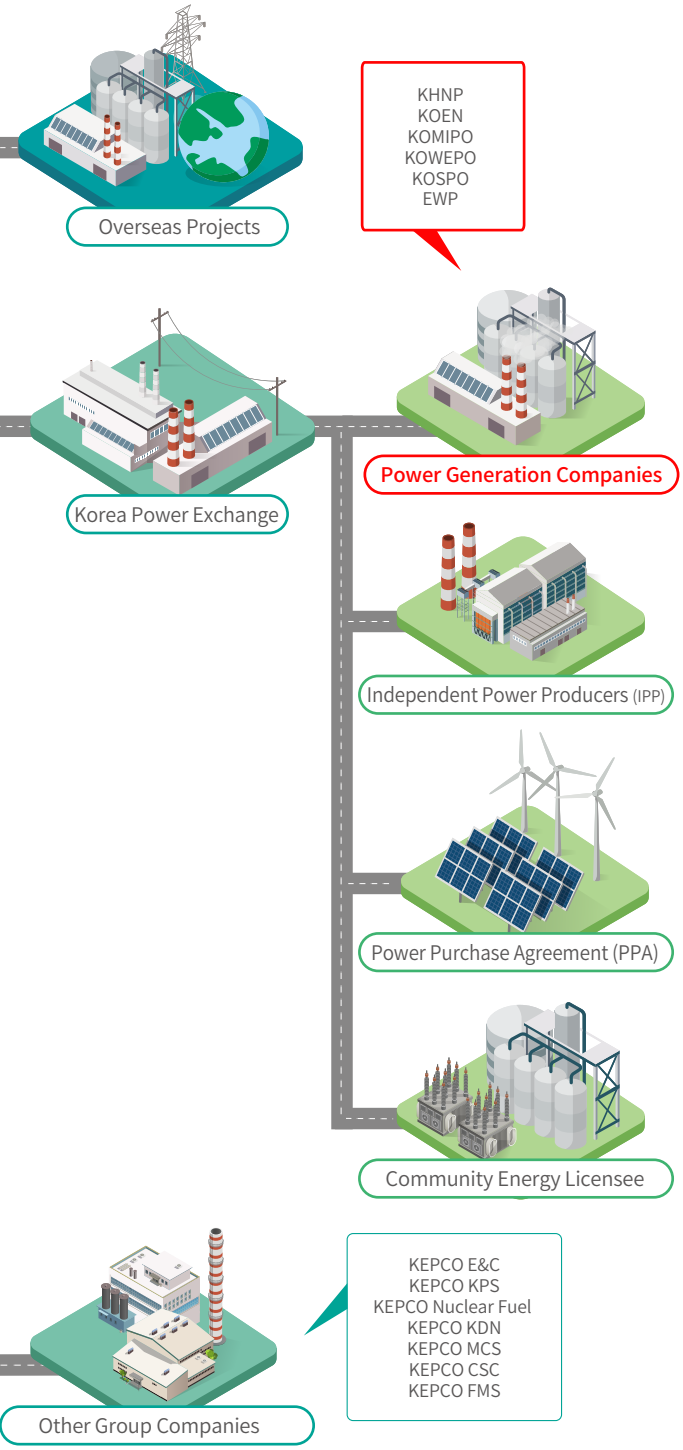
KEPCO Volunteer Groups	**312** Nationwide
Social Contributions	KRW **124.3** Billion
Purchases of Products Manufactured by SMEs	KRW **9.7** Trillion

KEPCO Value Chain Process



(Scope : KEPCO and Group companies. As of December 31, 2021)

We develop power grid plans based on predictions of future electricity demand. We also complete transmission and substation facilities on schedule, run them efficiently, and distribute energy to places where it is needed, all of which contribute to the lives of citizens and industrial development. Furthermore, we aspire to operate a rational charge system and distinct customer services, all while dominating the global energy industry with constant ambition and innovation.



OUTPUT

Financial Capital

Sales	KRW **60.5** Trillion
Operating Profit	KRW **- 5.8** Trillion

Human Capital

Number of Female Employees	**946** Persons
Voluntary Turnover Rate	**0.82** %
Employee Satisfaction Score (KEPCO)	**72.0** Points

Intellectual Capital

Number of Patent Registrations	**766** Cases
Number of innovative Products Designated	**306** Cases

Manufactured Capital

Electricity Sales	**533,431** GWh
Annual Power Outage Time Per Household	**8.92** Minutes
Transmission and Distribution Loss Ratio	**3.53** %

Natural Capital

GHG Emissions (Scope 1&2)	**17,507** Million tCO2eq
Coal Ash & Desurfurized Plaster Emissions	**9,062** Thousand Tons

Social and Relationship Capital

Number of New Jobs (regular)	**2,047** Persons
Customer Satisfaction Score	**82.8** Points
Employee Volunteer Hours	**169,960** Hours

2

Sustainability Management

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ESG Strategies

ESG Trends in Power Industry

International crises triggered by COVID-19, trade wars, and the Russia-Ukraine war are reawakening the importance of ESG in financial markets and industries . ESG trends across the economy, including management, consumption, and investment, have become a daily routine. KEPCO identifies ESG trends in advance, manages them systematically, and establishes ESG management strategies thereupon. In particular, the electric power industry is in a significant transition period with the 2050 carbon neutrality declaration and the energy transition policy in response to climate crisis. We are facing the demands from various stakeholders to fulfill environmental and social responsibilities in terms of the continuous growth of the company and shareholder value enhancement. With the shift of the paradigm, KEPCO will not only actively manage risk factors related to key ESG issues in the power industry, but also uncover new opportunities and develop business models to come up to the external expectations.

Accelerated Pace of Carbon Neutrality

As the global climate crisis is intensifying, the energy industry is faced with disruptions, such as greenhouse gas reduction, green energy, and the decarbonization of the entire value chain, leading to rapid changes in the industry. In line with the great shift, carbon neutrality is one of the core issues in the power industry. Korea is aiming for carbon neutrality by 2050 in pace with the global trend. Accordingly, it is inevitable to transform the overall power industry to be achieve net-zero in the energy transition sector by making energy transportation and consumption efficient, generating power from zero-carbon or low-carbon sources, and optimizing the energy mix. We aim to play a clear role in achieving carbon neutrality with the electric power group companies and expand our renewable energy and energy efficiency businesses, while acquiring key net-zero technology through cooperation. In addition, we will help the entire industry achieve carbon neutrality by increasing our net-zero efforts.

Spread of ESG-based Responsible Investment

Investors in and outside Korea, including pension fund managers and asset managers, are demanding active climate responses from companies by utilizing their investment/financial capabilities. For instance, they have introduced a negative screening strategy for coal-related companies. They are also asking companies they are engaged in to improve mid-to-long-term performance and ESG management by considering ESG in investment/financial decision-making and expanding responsible investment. As a listed company on the Korea Exchange and the New York Stock Exchange, KEPCO seeks to declare the suspension of overseas coal-fired power projects, advance the decision-making system, such as establishing the ESG Committee, and reorganize the structure to focus on renewable energy and future energy businesses as the call for ESG management from investors is increasing. With the mid-to-long-term ESG strategy, we are identifying and implementing measures to improve performance and manage ESG-related risks.

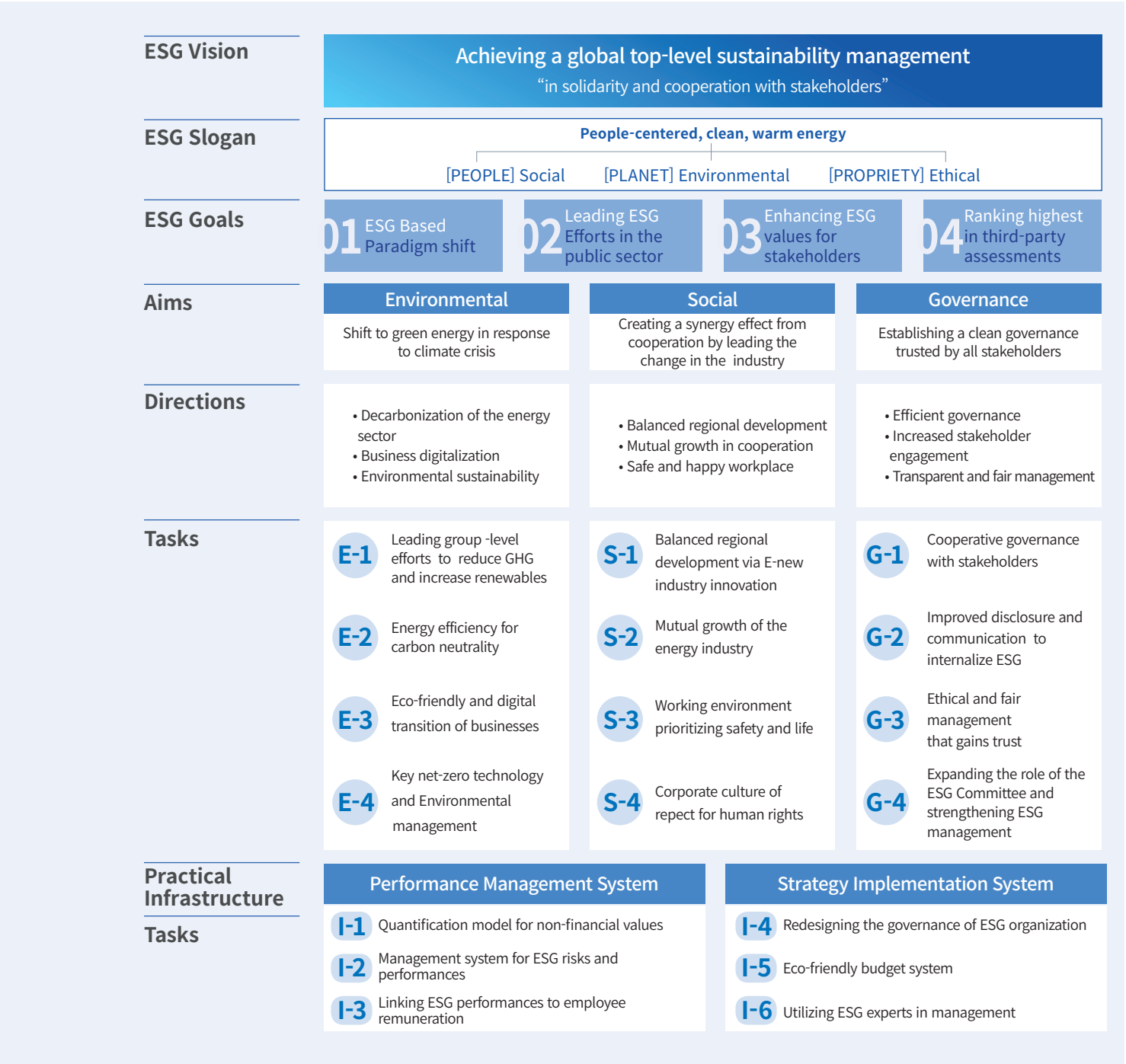
Demand for Disclosing ESG Information

The discussion on regulating the disclosure of non-financial information centered on ESG is making progress. In the EU, ESG information disclosure is mandatory for companies with a certain number of employees. In 2019, Korea implemented the mandatory disclosure system of corporate governance reports for large-scale listed companies with total assets of KRW 2 Trillion or more in response to the demand. The Financial Services Commission announced a gradually compulsory ESG disclosure plan that will expand the publication duty of corporate governance reports and sustainability reports to all KOSPI-listed companies from 2026 and 2030 respectively.

Preemptively responding to the mandatory information disclosure, KEPCO has disclosed ESG information transparently and in detail in the Sustainability Report(First published in 2005) and the Corporate Governance Report Report(First published in 2017). We also meet the demand for ESG information from stakeholders by disclosing our ESG-related policies, systems, activities, and performances on our website.

ESG Strategy System

Here at KEPCO, we established our ESG vision and goals. In order to achieve this, we created an ESG strategy system by synthesizing improvement measures for each ESG area that had been disconnected. To achieve our ESG vision, 'Achieving a global top-level sustainability management in solidarity and cooperation with stakeholders', we have set 'ESG-based paradigm shift', 'Leading ESG efforts in the public sector', 'Enhancing ESG values for stakeholders', and 'Ranking highest in third-party ESG assessments' as our goals. 'Shift to green energy in response to climate crisis' is the aim in the environment area, 'Creating a synergy effect from cooperation by leading the change in the industry' in the social area, and 'Establishing a clean governance trusted by all stakeholders' in the governance area. Thus, we have a total of 9 directions and 12 tasks under the 3 major aims and 4 major goals that we are implementing.



ESG Highlights

In 2021, KEPCO and group companies continuously strived to create sustainable values through solidarity and cooperation with stakeholders. We practice sustainable management that reflects economic performances on top of ESG performances across our business activities to preemptively respond to climate crisis and fulfill our responsibilities and duties as a corporate citizen.

KEPCO 한국전력공사

Member of Dow Jones Sustainability Indices Powered by the S&P Global CSA

CDP DRIVING SUSTAINABLE ECONOMIES

한국ESG기준원

DJSI Asia-Pacific
Member of the Dow Jones Sustainability Indices Asia -Pacific for 8 consecutive years

CDP Sector Honors
Carbon Management
Carbon Management Sector Honors

Rated B+ by KCGS
Rated B+ in the ESG assessment by KCGS

KHNP

2021. 12
Awarded a **grand prize in net-zero management** at the Global Standard Management Awards

2021. 12
Grand prize at the Korean Mutual Growth Awards and **gold prize** in the Innovative Procurement Contest

2021. 12
Grand Prize for Integrity and Ethics from the Korean Public Institution Audit Association

KOEN

2021. 11
Presidential Award for advancing the net-zero energy industry

2021. 06
Ministerial Award (Ministry of Strategy and Finance) at the National Sustainable Management Conference

2021. 04
First power company to receive an **achievement award for carbon neutrality** and promoting the timber industry

KOMIPO

2021. 12
Excellence Award in the integrity assessment for public institutions for **6 consecutive years**

2021. 12
Presidential Award for the deregulation of small and medium-sized businesses

2021. 11
Presidential Award at the Korean Safety Awards

Going forward, KEPCO and group companies will firmly establish ourselves as the company that is most trusted by stakeholders through sustainability management activities with integrity, in addition to continuing to pursue greater changes, challenges, and growth. Leveraging our capabilities across all of our business areas, we will do our utmost to create a sustainable energy industry and growth engines.

IIA Korea

국민권익위원회 Anti-Corruption & Civil Rights Commission

2021 JoongAng ESG

Grand Prize for practicing social values

Assessment on social values and integrity by the Institute of Internal Auditors Korea

Overall Integrity Level 2 (Highest in the 1st string of the public sector)

Assessment on integrity outcomes, integrity efforts, and corruption by the Anti-Corruption & Civil Rights Commission

ESG Management Grand Prize, Corporate Partnership Commissioner Prize

Assessment on ESG system and performances by JoongAng Ilbo

KOWEPO

2021. 12

Awarded by the Minister of Trade, Industry and Energy for promoting the use and provision of public data

2021. 11

Awarded by the Minister of Interior and Safety for developing a platform for solving local issues with employees

2021. 04

2 Special Awards from CDP in climate change and water resources

KOSPO

2021. 12

Level 2 for integrity in the public sector

2021. 09

Presidential Award for innovative procurement of small and medium - sized businesses

2021. 07

Prime Ministerial Award for contributing to the society and economy

EWP

2022. 01

Grand Prize for the safety and health cooperation program

2021. 06

Special prize in the social area at the Korea ESG Management Awards

2021. 01

Special Prize from CDP in climate change for **3 consecutive years**

UN SDGs-linked Major Performances

Business

Strategic Direction	UN SDGs	Key Performance	
Stable Power Supply		Fail Stop Rate of 5 Power Generation Affiliates **0.04** % * Among the world's lowest	Transmission and Distribution Losses **3.53** % * Among the world's lowest
Diversified Future Growth Business Portfolio		Renewable Energy Generation Capacity of Group Companies **4.5** GW	Sales from Overseas Businesses of Group Companies KRW **3.14** Tn

Social

Strategic Direction	UN SDGs	Key Performance	
Boost Supply Chain Competitiveness to Create an Ecosystem for Shared Growth		Purchase of Eco-friendly Power Equipment of KEPCO KRW **445.2** Bn	Purchasing of Innovative Products in the Energy Technology Market of Electric Group Companies KRW **120.3** Bn
Safety/Disaster/ Security Response System		Cyber Security Breach in Group Companies **Zero**	Improvement Measures from Risk Assessment of Group Companies **12,985** Cases
Strengthen the Social Safety Net		Volunteer Work of Employees of Group Companies **169,960** Hours	Discount from Power Bills by KEPCO for Social Welfare Reasons KRW **598.7** Bn
Create Quality Jobs & Improve Employee Satisfaction		Training Hours per Employee of Group Companies **92.62** Hours	Female Managers of Group Companies **7.3** %

(As of Dec. 31. 2021)

Environmental

Strategic Direction	UN SDGs	Key Performance	
Lead Carbon Neutrality Action in the Transition Sector		Reduction from the Energy Efficiency Project of KEPCO **1,203** GWh	Renewable Energy Access Rate in Korea **84** %
Improved Pollutant Management & Advanced Environmental Management		Investment of Electric Group Companies into Environmental Facilities KRW **1.1** Tn	Reduction in Fine Dusts Emitted by Electric Group Companies (vs. 2016) **67** %
Environmental Protection for Sustainable Future		Environmental Impact Assessments of KEPCO (Accumulated) **59** Cases	Zero-emission Vehicles of Group Companies **37** %

Governance

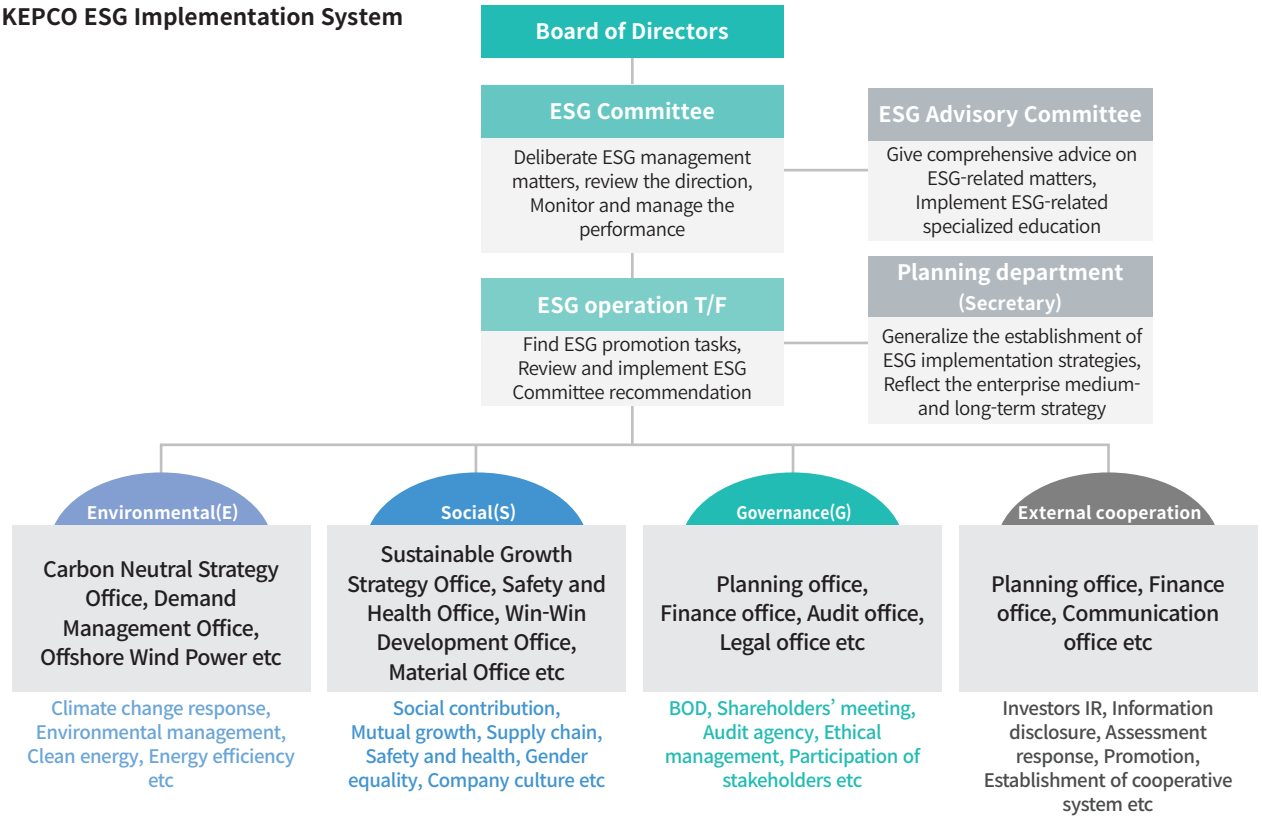
Strategic Direction	UN SDGs	Key Performance	
Establishing the Governance Centered around BOD and Shareholders		Share of Outside Directors at Group Companies **54.8** %	Percentage of Female Directors at Group Companies **11** %
Reinforcing the Risk Identification and Preemptive Response		ESG Advisory Committee of KEPCO **Established**	Agenda Items Submitted to the KEPCO ESG Committee **9** Cases
Taking the Lead in Ethical Compliance and Human Rights Management		Integrity Level of KEPCO Assessed by the Anti-Corruption & Civil Rights Commission Level **2**	Completion of Training on the Conflict of Interest Prevention Act at KEPCO **99.5** %

ESG Governance

Establish ESG Governance

KEPCO established the ESG implementation system to promote the ESG-centered decision making and cooperative communication considering that ESG management is essential to sustainable growth. KEPCO launched the 'ESG Committee' (December 2020) and 'ESG Advisory Committee' (September 2021) under BOD and established the ESG operation T/F consisting of four areas, including environment, society, governance, and international cooperation, led by the president of Future Strategy Planning Division. Based on this, while KEPCO established the enterprise ESG implementation strategy to manage and prepare the ESG risks, we encourage employees to relate to ESG and participate in ESG activities by inviting external professionals through seminars, card news, and news letters.

KEPCO ESG Implementation System



EGS Committee

KEPCO ESG Committee consists of three outside directors and deliberates the sustainable business, including ESG-related major business matters and the establishment of ESG business strategies and business plans, and manages and monitors the performance and problems. In 2021, the ESG Committee was held four times and the committee deliberated the ESG Committee operation plan, publication of sustainable business report, launch of ESG Advisory Committee, signing of UN Global Compact. Going forward, the company will strengthen the ESG governance and fulfill the social responsibility together with ESG Committee.

KEPCO EGS Committee composition

As of September 30, 2022

Park Jongbae
(Male / Energy, Electricity)
(Current) Chairman of the BOD, Chairman of the ESG Committee
(Current) Professor, Department of Electrical and Electronic Engineering, Konkuk University

Bang Suran
(Female / Law)
(Current) Attorney-at-law/Partner at Law Firm S
(Former) Senior Advisor, Seoul Energy Corporation

Lee Kyesung
(Male / Public, Policy)
(Former) Chief of Political Affairs in the Office of the Speaker of the National Assembly
(Former) Spokesperson in the Office of the Speaker of the National Assembly

ESG Advisory Committee

KEPCO ESG Advisory Committee consists of five members in environment, legal affairs, promotion, administration, ESG. They play a role in providing advice in the whole ESG matters. ESG Committee discovered the key sustainable agenda in carbon-neutral era since the launch, reviewed the sustainable report in 2021, provided advice for ESG implementation and promotion strategy. Going forward, KEPCO ESG Committee will listen to people from various backgrounds, actively communicating with people regarding ESG activities and direction and providing advice to implement the ESG management more effectively.

Details of the opening of the KEPCO's ESG Committee in 2021

First Committee (January 15, 2021)	▪ Approval of ESG Committee operation (draft) ▪ Report on KEPCO's Safety Basic Plan
Second Committee (May 21, 2021)	▪ Approval of plan for the KEPCO Sustainability Report (draft) ▪ Report on the comprehensive plan for realizing social values
Third Committee (July 21, 2021)	▪ Approval of the establishment of the ESG Advisory Committee ▪ Report on the establishment of the ESG implementation system and operation plan for the second half of the year
Fourth Committee (October 28, 2021)	▪ Approval of membership in UNGC Global Compact (draft) ▪ Approval of the publication of the KEPCO Sustainability Report (draft)

KEPCO ESG Advisory Committee Composition

As of September 30, 2022

Park Youngsook
(Female / Social)

Current CEO of FleishmanHillard Korea
Current Director of WCD(Women Corporate Directors) Korea

Jin Woosam
(Male / Environmental)

Current Chairman of RE100 Korea Branch
Former President of the Korean Society for Renewable Energy

Lee Minho
(Male / Environmental)

Current Director of Yulchon ESG Research Center
Former Director of the Environmental Policy Department at the Ministry of Environment

Cho Kyungdoo
(Male / Environmental)

Current Director of the Incheon Climate and Environment Research Center
Current Chairman of the Carbon Neutrality Commission at the Korean Society for Atmospheric Environment

Jin Woosam
(Male / Governance)

Current Professor in the Department of Public Administration at Honam University
Former President of the Korea Governance Society

ESG Performance Management System

KEPCO implements the ESG management in the long term to create the social value effectively and set the KPI by ESG strategic task to examine the quarterly performance to internalize the ESG management. Also, integrity and KPI are linked to compensation by reflecting them on performance contract of executives. When assessing performance of operations, dispatching people, we consider the ESG factors. Other than this, we adopted the model that can quantify the non-financial values such as SROI, profits of stakeholders, and environmental and social impacts to implement the 'ESG impacts assessment', reflecting them on the business deliberation process to prevent major ESG risks caused by business operation.

Main KPIs by ESG area

Environmental(E)	Social(S)	Governance(G)
Greenhouse gas emissions, Energy reduction utilizing EERS, AMI infrastructures, Key strategic technologies	Invitation of companies in Energy Valley, Purchase rate of eco-friendly power material and machinery, Accident rate of ordered construction, etc.	Effort level of operation of the Carbon Neutrality Consultative Body, Comprehensive integrity index of the Anti-Corruption & Civil Rights Commission, Proposed bills related to ESG matters, etc.

Stakeholder Engagement

KEPCO and group companies has established and operated the differentiated channels to respond to expectation from shareholders, investors, governmental agencies, customers, subcontractors, local communities, employees. Considering the business operation, environmental effects, social relations, we actively listen to opinions of stakeholders and operate the group consultative body to share the opinions that are collected from KEPCO and group companies.
In addition, we comply with various ESG disclosure guidelines from home and abroad and raise the transparency of disclosed information, thus promoting the communication appropriate for stakeholders' needs. In the era of 'Stakeholders' capitalism', we will make the sustainable future with stakeholders based on key services of power industry.

Interest of Stakeholders and Communication Strategy

Stakeholders	Major interests	Communication direction	Communication channel
Korean people/ Customers	• Strengthen the electricity publicity • Share the power supply crisis • Improve the quality of power service	• Secure publicity through national participation and cooperation • Improve the quality of power service • Expand the opinion collection regarding key innovation tasks	• Website, social networks • Online communication panel • KEPCO national auditor • Idea collection • Customer center, cyber
Shareholders/ Investors	• Achieve sustainable growth in corporate values • Improve profitability • Mange ESG risks	• Make efficient management, raise the financial soundness • Strengthen ESG management system • Provide preemptive information reflecting investors' requests	• Domestic and foreign IR • Shareholders' meeting • Company disclosure • ESG Committee
Government/ National Assembly	• Improve power system • Resolve people's inconvenience • Strengthen the operation efficiency	• Implement the governmental policies • Raise the awareness toward power industry • Establish the cooperative network	• Management matters exhibition • Meetings of head of institutions • Policy forum seminar • Inspection of the administration, work report
Employees/ Labor unions of the power group	• Cooperate in major management matters • Improve reliability between labor and management • Foster a flexible company culture	• Promote cooperation through vision share • Strengthen field communication regarding management issues • Realize the mutual labor management culture • Improve the company culture for labor and management	• Enterprise management meeting, discussion • Management matters sharing system • Company culture workshop • Company culture portal, family-friendly portal
Subcontractors	• Pursue transparent and fair cooperation • Achieve SME's mutual growth • Protect rights and strengthen competitiveness	• Improve the unfair trade factors like collusion • Collect opinions regarding revision of contract regulations • Resolve difficulties of subcontractors • Support domestic and international market development	• Discussion, public hearing • Outreach VOC • SRM customers' opinions • Company growth response center
Subsidiaries/ Investment companies	• Collectively respond to the matters of power group and pursue collective development • Improve the management efficiency of power group • Change to full-time employment and pursue stable growth	• Collectively respond to matters of power group • Collectively implement the tasks to improve management efficiency • Improve the working condition	• Power group CEO meeting • Power group's head of planning HQ meeting • Working group of a working person • Conference body for labor union, company, professionals
Local community	• Revitalize the innovative cities • Establish the cooperative governance • Resolve conflicts in constructing power facilities • Protect property rights and environmental rights	• Realize the model to address local issues • Recruit local talents and expand jobs • Pursue mutual growth with local communities • Raise acceptance of residents	• A council of heads of public institutions • Society innovation platform • Conflict management committee • Resident conference and presentation
Media/Opinion leaders	• Share key matters in power industry • Establish the development direction in power industry	• Improve the management transparency • Provide accurate information at the right time • Secure the national sympathy	• A press conference • Planning reports, discussion • Media contributions

Communication Channels by Sector

Business Participation

The Head of Consumer Organizaition	Online Communication Panel Group	KEPCO National Auditor
Invite opinion leaders **Meeting and Field Visit**	Conduct **7** surveys with **1,267** participants	Submit improvement cases more than **once** a month A total of **8** cases are improved
Establish the customer advisory and cooperative relationship	Establish the policy and regulations reflecting customers' opinions	Listen to opinions from the public and subcontractors

Conflict Management

Promotion of Power Facilities	Cultivation of Conflict Management Professionals	Run the Communication Channels of Local Residents
Raise the awareness toward power business. Prevent civil complaints caused by misunderstanding	**4** members in sales and bill, **3** members in distribution and safety, **3** members in transmission and conversion and compensation	Emotional approach to address the civil complaints in conflict areas

Operate Various Communication Channels

KEPCO identifies the stakeholders affecting business activities and defines the major stakeholders, establishing and strengthening the appropriate communication channel. By opening the online communication channel reflecting the recent trend, we try to communicate with young generations, the future targets, and establish the friendly image and make interesting content.

Web entertainment	Web drama	V-log	Youtube channels
Web entertainment related to renewable energy 'KEPCO Signal 2'	Web drama related to company culture 'kW kilowatt'	Vlog related to KEPCO 'KEPCO Life'	The youtube channel to introduce KEPCO 'KEPCO #AtoZ'

Materiality Assessment

Materiality Assessment and its Connection with Policy

Step 1. Constitute the issue pool	Step 2. Issue analysis	Step 3. Survey for stakeholders (Double-Materiality)	Step 4. Decide the priority	Step 5. Assess seriousness and analyze the result
Analyze the international standards and discover the issue pool through bench-marking	Analyze the result regarding business impacts and interests	Analyze the environmental and social impacts by key issues and financial impacts	Constitute the important issues reflecting priorities	Establish the goals and plans for key issues and key performance

Step 1. Constitute the Issue Pool

According to the principle of GRI (Global Reporting Initiative), KEPCO carried out the Materiality Test. Based on the key issues discovered by the test, we wrote the sustainable management report. By analyzing the international standards, benchmarking the same industry, we discovered the issue pool and considered business impacts and stakeholders' interests, thus selecting 10 key issues.

Step 2. Issue Analysis

We analyzed and quantified the results of each category, including same industry's benchmarking, sustainable management report, international standard indicators, assessment of media research and professionals to decide the priority in the major sustainable management issue pool.

Impact on business analysis	Importance to stakeholders' analysis
Benchmarking of the same industry Analyze the important reporting issues in sustainability report of competitive companies	**Analyze the international standards** Analyze the sustainability initiative and ESG assessment in GRI, DJSI, SASB
Past sustainability report (2017~2021) Analyze the reporting issues and content of the report published for the last 5 months	**Media Research** Analyze 2,577 articles in national media outlets in 2021
	Professional's assessment Assess the importance by issues from ESG professionals

Step 3. Survey for Stakeholders (Double-Materiality)

KEPCO conducted the survey for stakeholders based on Double-Materiality to identify the sustainable management issues to be managed for business operation and issues with high business and financial impacts from the perspective of stakeholders. by doing so, we identified the sustainability issues attracting attention.

Overview of survey for stakeholders	
Survey period	June 10th ~ June 24th, 2022
Survey method	Online survey
Survey target	Customers, subcontractors, local communities, shareholders/investment companies, Sustainable management professionals as well as outside stakeholders, 1,529 employees of KEPCO and power group
Survey content	Assess the ESG issues with high operational/financial impacts for KEPCO Assess the ESG issues with high operational/financial impacts for stakeholders

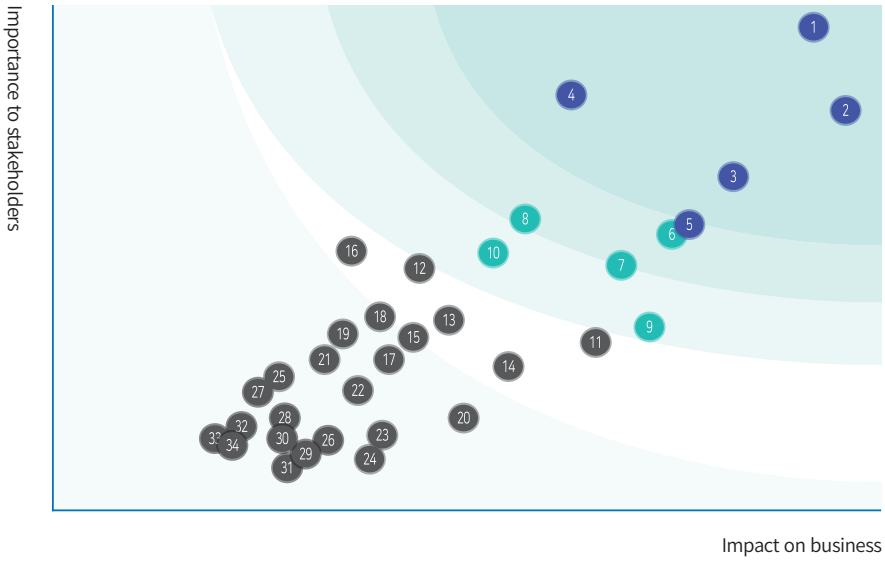
Step 4. Decide the Priority

By judging the business impacts (financial, strategic, operational impacts) and stakeholders' interest (reputation impacts), we constitute them in key issues.

Step 5. Analyze the Seriousness Evaluation Result

We selected 10 key issues by quantifying the impact on business and the importance to stakeholders of each issue based on the stakeholder survey.

Materiality Map



No.	The name of issue
1	Strengthen the eco-friendly low-carbon business
2	Assess the climate change risks
3	Strengthen the ethical management and anti-corruption system
4	Reduce energy and greenhouse gas emissions
5	Realize the safe workplace
6	Supply stable electricity and raise acceptance of facilities
7	Establish the trust relationship with local communities
8	Manage waste and pursue circular economy
9	Diversify new business portfolio
10	Create economic values (Improve financial structure)

Materiality Issues

● High ◐ Medium ○ Low

Key Issue	Global Flamework				Target of impact occurred	Business Impacts		
	GRI	SASB	TCFD	UN SDGs		Costs	Profit	Risk
Strengthen the eco-friendly low-carbon business	Emission (GRI 305)		●	SDG 9, 12, 13	Customer, Government, Shareholders and Investors	●	●	●
Assess the climate change risks	Economic ability (GRI 201)	IF-EU-110a.3 IF-EU-110a.4	●	SDG 13	Customer, Government, Shareholders and Investors	●	●	●
Strengthen the ethical management and anti-corruption system	Anti-corruption (GRI 205)				Employees, Subcontractors	◐	●	●
Reduce energy and greenhouse gas emissions	Energy(GRI 302) Emission(GRI 305)	IF-EU-240a.1 IF-EU-240a.4	●	SDG 7, 12	Customer, Government, Shareholders and Investors	●	●	●
Realize the safe workplace	Industrial safety and health (GRI 403)			SDG 3	Employees, Subcontractors	◐	◐	◐

Step 6. Result of Materiality Assessment and its Refection in the Policy

We established the goals and plans by issues discovered by the Materiality Test, establishing the key performance and disclosing them.

Key Issue	Key Performance(2022)	Medium and Long Term Goals
· Strengthen eco-friendly low-carbon businesses · Assess climate change risks · Reduce energy and greenhouse gas emissions	· 1,184 Thousand Tons of greenhouse gas emissions · 1,181 MW reduction utilizing EERS · (2021) Success in 60MW of wind power plant's demonstration	· 2027 : 860,000 Tons of GHG emitted · 2027 : 2,653 GWh energy saved in compliance with EERS · 2030 : 21.5% of power generated as renewable energy
Strengthen the ethical management and anti-corruption system	(Anti-Corruption and Civil Rights Commission) Second grade in comprehensive integrity among public institutions	Achieve first grade in comprehensive integrity among public institutions in 2027
Realize the safe workplace	Order construction accident rate 0.27%	Order construction accident rate 0.17% in 2027

3

Sustainability Performance

Business

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Environmental

Lead Carbon Neutrality Action in the Transition Sector 68
Improved Pollutant Management & Advanced Environmental Management 80
Environmental Protection for Sustainable Future 88

Social

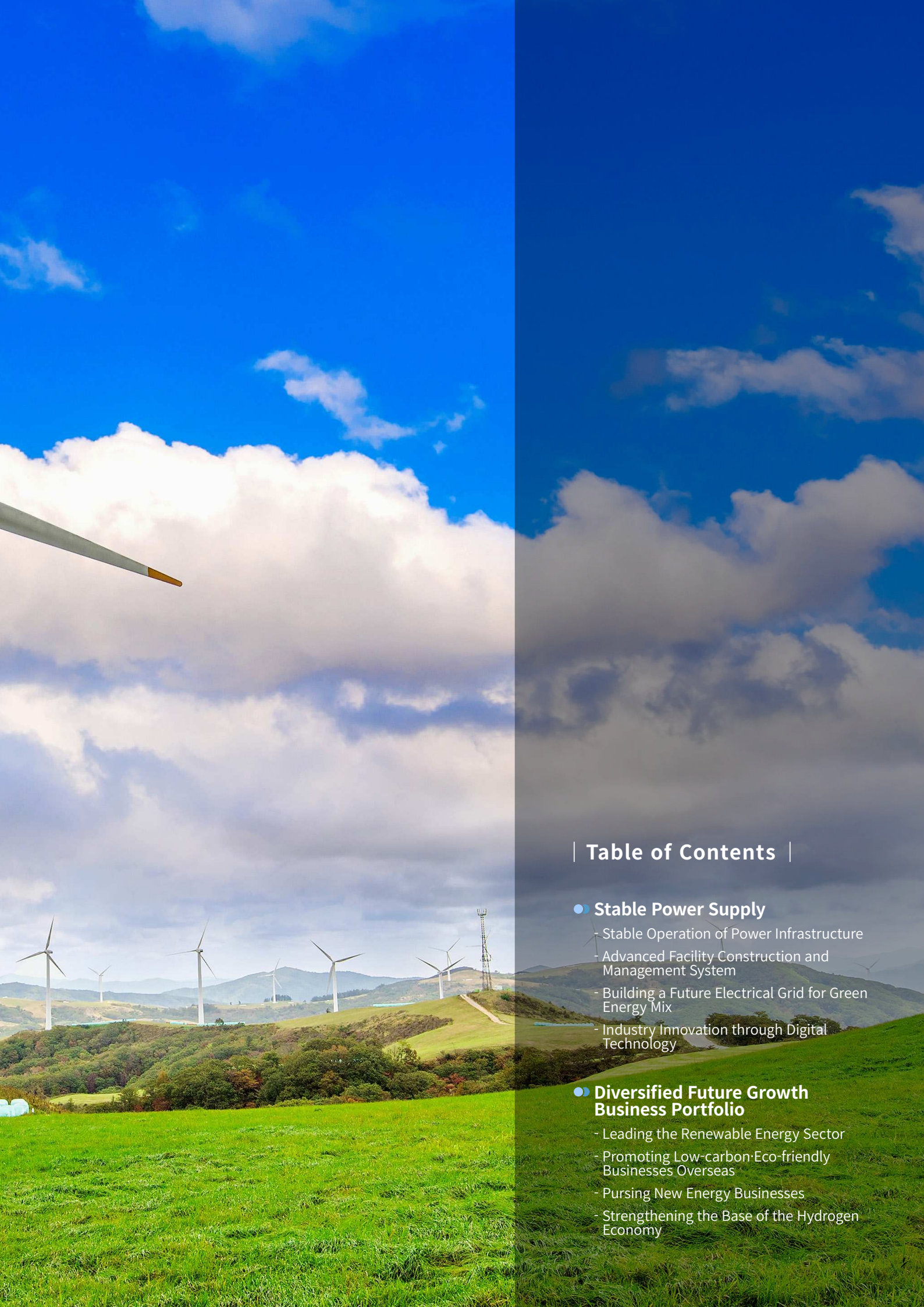
Boost Supply Chain Competitiveness to Create an Ecosystem for Shared Growth 96
Safety/Disaster/Security Response System 108
Strengthen the Social Safety Net 120
Create Quality Jobs & Improve Employee Satisfaction 126

Governance

Establishing the Governance Centered around BOD and Shareholders 138
Reinforcing the Risk Identification and Preemptive Response 148
Taking the Lead in Ethical Compliance and Human Rights Management 156

Business

KEPCO and group companies have invested in researched, and developed the R&D, generation, transmission, substation, distribution, and other relevant areas of power resources to provide electricity needed in the daily lives and industrial activities of the nation in a stable manner. While establishing an electricity supply response system to provide high-quality electricity stably, we manage facilities in an optimal way by utilizing convergence technology. KEPCO and group companies will lead the future energy market by creating a date-centric environment and creating various business models based on digital technology in the era of the 4th industrial revolution.



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- Advanced Facility Construction and Management System
- Building a Future Electrical Grid for Green Energy Mix
- Industry Innovation through Digital Technology

Diversified Future Growth Business Portfolio

- Leading the Renewable Energy Sector
- Promoting Low-carbon·Eco-friendly Businesses Overseas
- Pursing New Energy Businesses
- Strengthening the Base of the Hydrogen Economy

Stable Power Supply

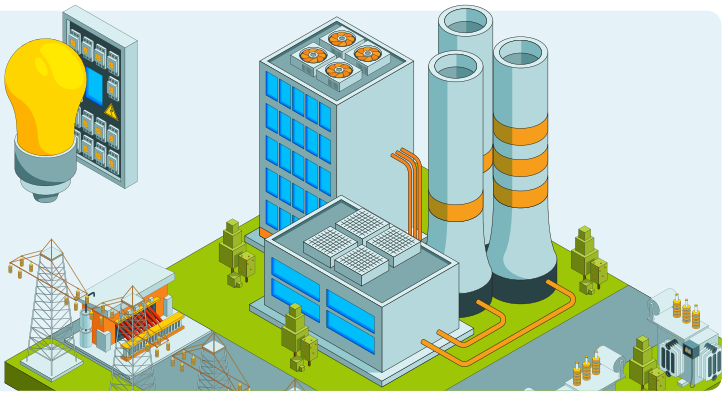
Increasing Reliability of Power Facilities

KEPCO and group companies seek to transition to green energy sources on the premise of stable power supply for low-carbon economy and society. To operate LNG power generation stably in the course of the transition to green energy sources, we detect points of concern in the facilities early, increase facility capacities, and upgrade facilities proactively. We also prevent an unexpected stop of the facilities by using digital technologies, such as an AI-based predictive, control system and mock training with VR simulators.

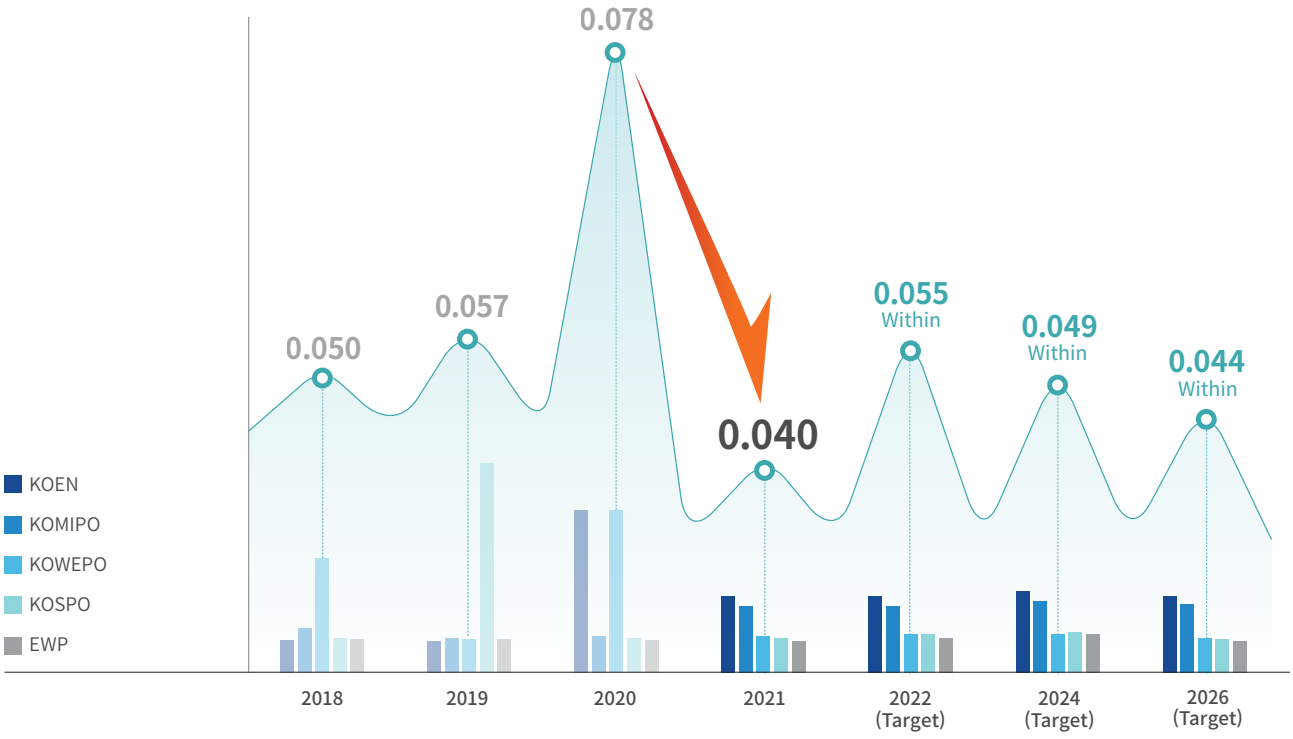
We strive to build the optimal operation system to secure the stability of the power system and invest in improving the power grid to guarantee an access to electricity in response to potential insufficiency of electricity in the course of transition and volatility in the supply. KEPCO and group companies will contribute to the national economic growth and provide convenience to customers by supplying high-quality electricity stably even during the transition period.

Group companies Fail Stop Rate of Power Generation

0.04%



Group companies Previous Fail Strop Rates and Target Rates



KEPCO Voltage Holding Ratio

* Among the world's highest

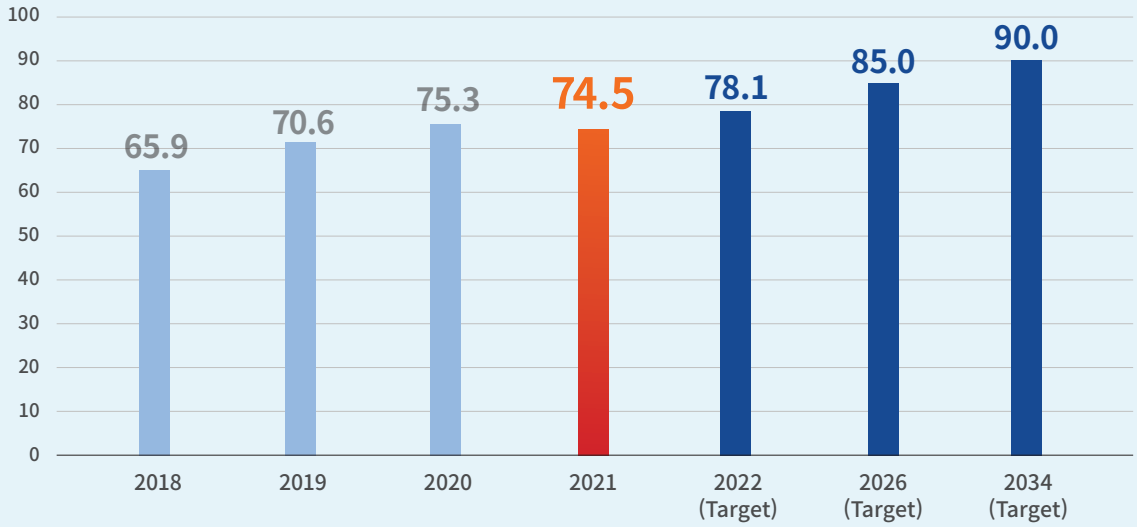
99.989%

KEPCO Frequency Retention Rate

* Among the world's highest

99.99%

Group companies Previous Proportions of using Nuclear Power and Target Proportions



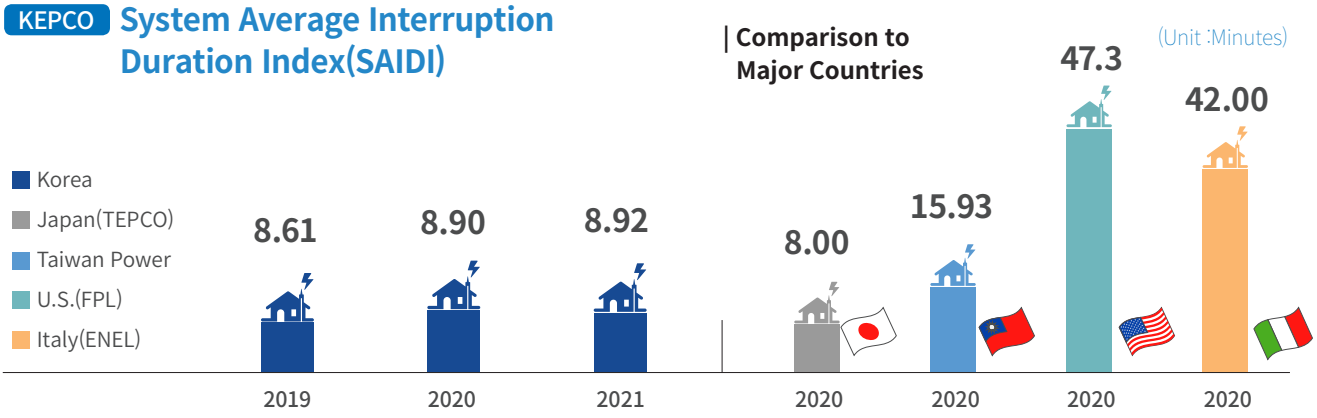
Use of Nuclear Power of Major Countries in 2021

USA	Japan	China	Canada
92.7%	37.3%	91.4%	72.7%

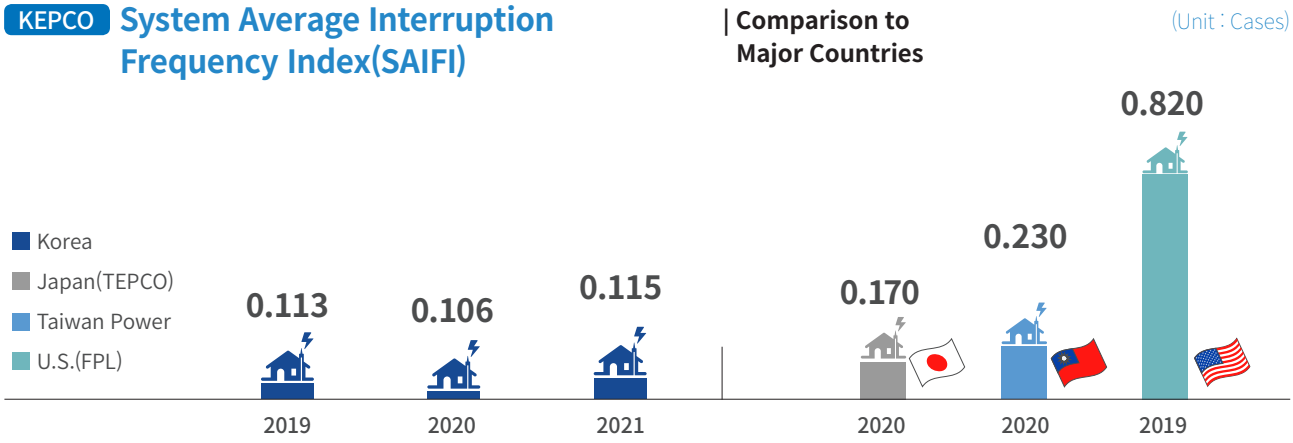
※ The figures above are the data disclosed on the Power Reactor Information System (PRIS) of the IAEA.

Stable Power Supply

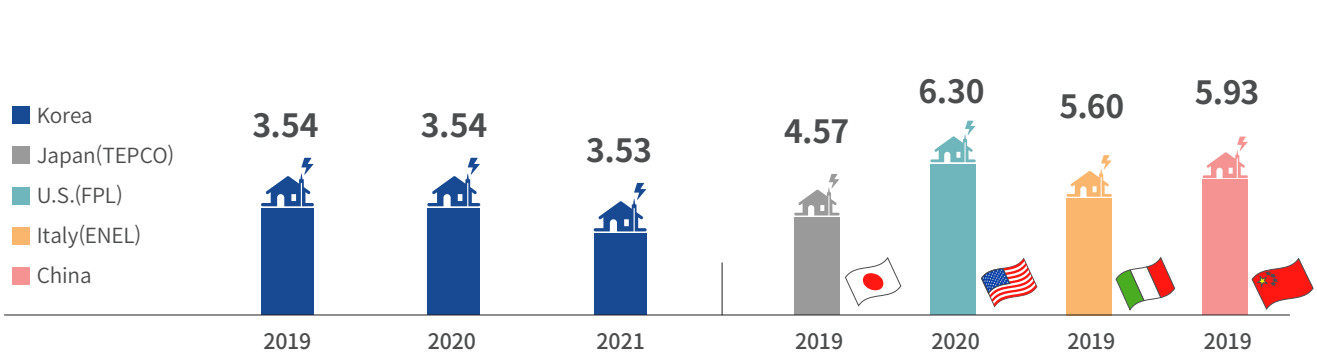
KEPCO System Average Interruption Duration Index(SAIDI)



KEPCO System Average Interruption Frequency Index(SAIFI)



KEPCO Transmission and Distribution Losses

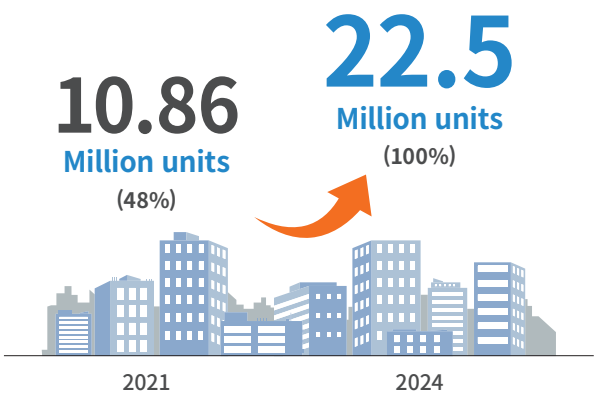


※ SAIDI : System Average Interruption Duration Index, SAIFI: System Average Interruption Frequency Index
※ SAIDI is an international index (IEEE) that measures the quality of electricity, but has different standards* on disaster-induced blackouts and temporary blackouts for countries and companies.
* 5 minutes (Korea, North America), 3 (EU), failure to reclose (Japan), etc.
※ As the U.S. has multiple power companies and no national statistics, it is difficult to compare country by country.
※ The 2020 SAIDI figure of Japan is 27 minutes/unit, but it includes disasters and the SAIDI statistics vary for each power company.

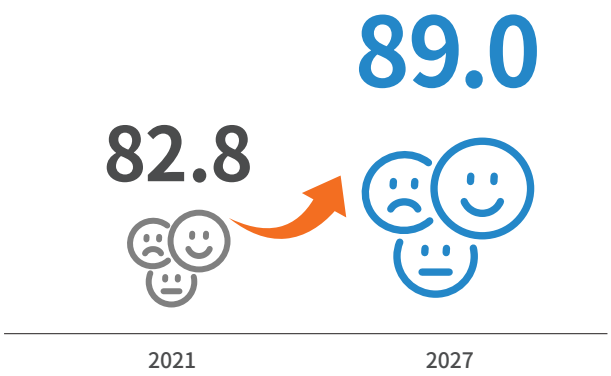
Innovation in Electricity Industry Based on Digital Technology

KEPCO and group companies create new values by building a data-sharing ecosystem and utilizing diverse digital technologies in line with the trend for digital transformation. By collecting, converging, and processing energy-related digital data, we have developed and adopted platforms to optimize the investment in and operation of the facilities for the generation, transmission and distribution of power, increase energy efficiency and work efficiency, and foster the energy industry. We also enhance customer satisfaction continuously by providing tailored services based on the big data from remote meter readings.

KEPCO AMI Distribution Target



KEPCO Customer Satisfaction Target (Out of 100)



2035 Digital Transformation Roadmap

	IDPP Intelligent Digital Power Plant	IDSS Intelligent Digital Substation	ADMS Advanced Distribution Management System
2024	• Utilization and demonstration of IDPP by KEPCO and Group companies	• Acquisition and demonstration of base technology for full digital substations	• Sophistication of existing technology and demonstration of ADMS 1.0
2030	• Entering overseas markets with Intelligent power generation Technology and expanding application of Private power generation	• Building an IDSS platform and expanding the digital substations	• Strengthening the base of integrated ADMS data and gradual expansion across the company
2035	• Realization of technology to enable Zero-carbon power generation and application of renewable power generation	• Upgrading the IDSS platform and expanding/exporting IDSS to 34.5+kV	• Expansion across the company and operation of an electricity market platform
Expected effects	Facility failure rate **50 % ⬇**	Decrease in power blackout failure (Increased operational reliability)	Renewable energy control accuracy **More than 95 %**
	Facility maintenance cost **15 % ⬇**	CAPEX and OPEX **30 % ⬇**	Appropriate voltage holding rate **99 %**

Stable Operation of Power Infrastructure

Stability of Power Generation Facilities

Optimal Operation of Power Generation Facilities

With the aim of stable power supply, KEPCO and group companies are sparing no effort in making the power generation facilities reliable under the company-wide power supply plan. We take thorough measures to prevent major failures, such as replacing old parts in the electric/control facility, by monitoring and diagnosing points of concern in the facilities. Moreover, we regularly conduct planned preventive maintenance actions on the boilers, turbines, control facilities, data facilities, etc. under the standard model for planned preventive maintenance to minimize major damage and failures in the power generation facilities that may hinder power supply. We are working on manufacturing core parts domestically and securing our own technology in terms of gas turbines and nuclear power plants to allow immediate maintenance in emergency, and we contribute to the stable supply of electricity by constructing power plants in a timely manner. We have secured stable fuel supplies (e.g., overseas resource development) through the cooperation between, and we introduced an advanced purchase management system in preparation for fuel price volatility the electric power group companies to procure fuels in an economical and timely manner. Furthermore, we have diversified our global supply chain in response to the supply chain crisis due to COVID-19 and trade wars, while improving our facilities to make the use of equipment more efficient.

Optimal Operation Measures for Power generation Facilities

Reliable Power supply through Stable and Efficient Operation of Power Generation Facilities

Facility failure prevention	Increased maintenance capacities	Stable fuel supply	Sustainable supply chain
• Integrated monitoring and predictive diagnosis • Replacing old parts • Planned preventive maintenance • Increased emergency response capacity	• Standardization of technology • Self-sufficient construction/ operation technology • Developing a maintenance standard • Quality control for constructing power plants	• Overseas resource development • Diversified fuel supplies • Market analysis system • Greener fuels to generate power	• Domestic supply of core Equipment • Diversified equipment supply overseas • Entering the market with Korean equipment manufacturers • More efficient use of materials

Facility Failure Prevention

KHNP | Optimal Planned Preventive Maintenance of Nuclear Reactors

KHNP established and implemented the 10 major tasks with a task force with external experts to minimize delay in construction due to insufficient quality of maintenance and to optimize the planned preventive maintenance process for the nuclear reactors. JHNP first minimized the maintenance time during the peak time of electricity use by revising the process management system, and optimized resource distribution by utilizing personnel and equipment more efficiently. Also, KHNP provided more support to internal and external experts for safety management and improved the planned preventive maintenance process with on-site safety managers and a special safety support team.

KOSPO | Upgrading LNG Power Generation Facilities

KOSPO applies advanced techniques, such as degradation assessment and computational analysis, to analyze the damage on the vulnerable points of LNG power plants, upgrade the points, and maintain the highest reliability of the facilities. Although the facilities were operated 30% more than last year after taking measures to improve the vulnerable points, such as extending the lifespan of the gas turbine rotors, replacing exhaust pipes, and inspecting and replacing the HRSG tubes and pipes, the fail stop rate was close to zero(0.01%)

Results of planned process optimization

Kori	Kori **9.8** days less
Wolseong	Wolseong **4.6** days less
Hanul	Hanul **6.2** days less

Less delay in construction due to low-quality maintenance

Delay **76.4** days less

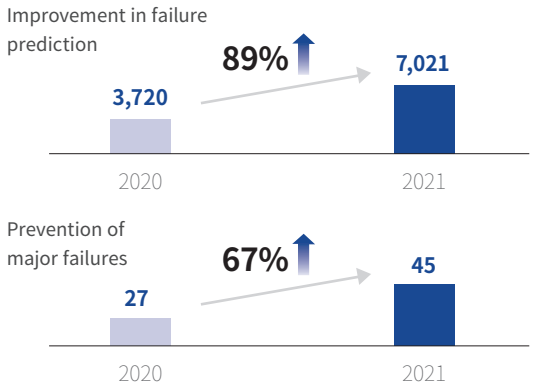
Zero major failures

Increased Maintenance Capacities

KOMIPO | Improved Predictive Maintenance System(MIRI) with Patented Technology

To prevent major failures due to leakage from boiler tubes, the predictive maintenance system was upgraded to detect failures with frequency now. Previously, it was difficult to detect failures before the damage increased, but the frequency method allows the system to detect high frequency from minor damages early on. When there was a leak from the tube in the New Boryung Thermal Power Plant, the damage was detected 11 days earlier.

Results of the Predictive Maintenance System



KOWEPO | In-house Technology to Repair Gas Turbine Rotors

KOWEPO pushed for developing internal technology for inspecting and repairing gas turbine rotors, which are key parts, in partnership with group companies, such as KPS and KEPRI. Instead of relying on overseas manufacturers for equipment repair and inspection, Korea Western Power developed repairing source technology and manufactured parts domestically through reverse-design. As a result, KRW 12.4 billion was saved in the spare rotor budget, and the repair period was reduced from 4 months to 2 months.

Stable Fuel Supply

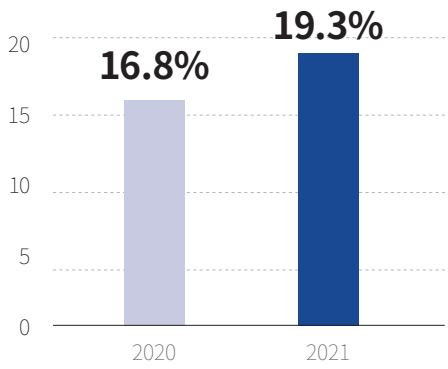
EWP | Purchase Strategy Tailored to Procurement Environment

EWP assessed the fuel supply risk per country by analyzing national yields, price volatility, dependence on foreign countries, and economics of transporting fuels, upon which the purchase strategy was revised for each nation to supply fuels economically. Also, EWP sought to diversify purchase strategies, including measures tailored to market prices per quarter, timely alternative purchases in niche markets, and complementary purchases in consideration of heat generation and batches.

KOEN |Two-Track Strategy for Resource Security in Korea and Overseas

In response to the weaponization of resources by Indonesia (ban on exporting coals) and Russia (restriction of gas supply) KOEN increased the quantity from the mines in Indonesia and Australia, where KOEN is an equity holder, by 300,000 ton annually. In Korea, KOEN increased the target inventory day of bituminuous coals and manages the inventory with an integrated fuel management system. By swapping bituminuous coals and purchasing them Jointly with power generation companies, which led to mitigating the fuel crisis of other power generation companies, KOEN contributed to stabilizing power supply in Korea.

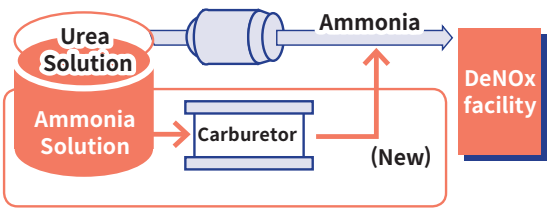
Share of Joint Supply



Prevention of Supply Chain Crisis

KOSPO | Rapid Renovation of Urea Solution-Only Facilities

KOSPO overcame the long-term discontinuance of power supply by rapidly renovating environmental facilities to address the issue of unstable urea solution supply, which is highly dependent on foreign countries. While cutting the amount of urea solution, which is the raw material of DeNOx facilities, by optimizing the input amount, KOSPO upgraded the DeNOx facilities that only use urea solution to use both urea solution and ammonia. Under the leadership of the CEO, storage tanks were upgraded, ammonia direct spraying facilities were added, and the optimal input amount of ammonia was set to address concerns about power due the global supply crisis.

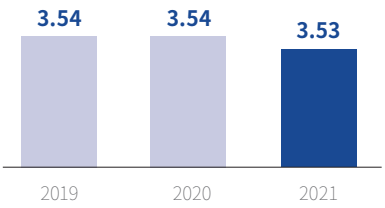


Increased Reliability of Electricity System

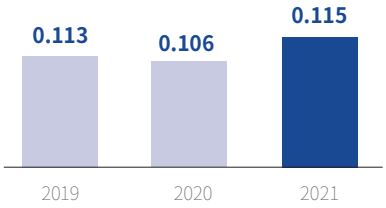
Supply of High-Quality Electricity

KEPCO has established the optimal plan to operate the power system based on the prediction on future power demands and the power generation equipment composition , built transmission and distribution facilities in a timely manner, and operate the distribution facilities optimally and efficiently to provide electricity stably and economically . To minimize power loss and optimize the power system, we addressed power system overload by increasing transmission and distribution facilities(substations and transmission lines), integrated the operation of light-load transformers, increased the capacity of facilities to re duce reactive power, replaced overloaded or old facilities, and used low-loss equipment and intelligent systems. In addition, we are strengthening the reliability of the power supply system by using digital diagnostic technologies for substations and more. While managing the distribution net spread out across the country, we are developing or adopting the Advanced Distribution Management System (ADMS) to manage ESS, EVs, and other resources efficiently. We also have measures in place, such as a special inspection in preparation for natural disasters, to prepare for power outage failures to supply high-quality electricity.

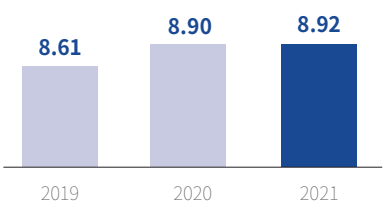
Transmission and distribution losses (Unit : %)



SAIFI (Unit : Times)



SAIDI (Unit : Minutes)



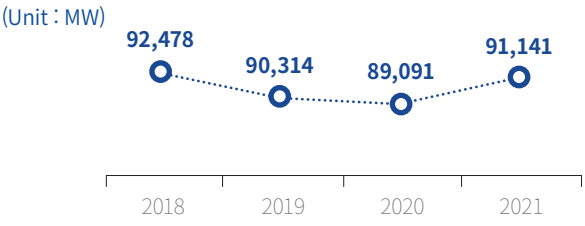
* SAIFI : System Average Interruption Frequency Index, SAIDI : System Average Interruption Duration Index

Stable Power Supply

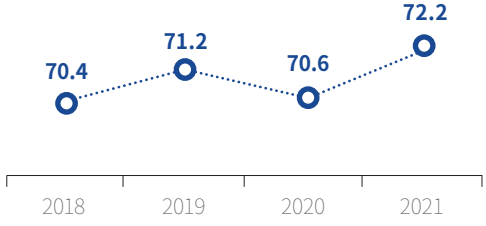
KEPCO manages facilities strictly and has established an emergency response system in case of potential crises in power supply. Every summer and winter, when electricity demand is at its highest, we conduct an emergency training in order to maintain power supply and check step-by-step measures in case of emergencies even in situations where reserve power is rapidly reduced , such as in the case of a generator failure. In addition , we prepare for unexpected incidents and accidents via inspecting and replacing of power facilities in areas where power use is expected to surge, relieving power system overload, and inspecting the blackout prevention diagnosis system and recovery system.In 2021, 595 underground (complex) substations under multi-purpose facilities and major transmission lines, such as a national industrial complex, were inspected, as were 20 distribution stations to prevent regional blackouts and 48,774 substations that were expected to be overloaded, among which 1,931 were replaced to stabilize power supply. There were 4 on-site inspections in cooperation with a government agency to strengthen response capacities in partnership with relevant agencies in case of a power supply emergency. Employees were designated to large-capacity clients and clients using the emergency power saving service to take rapid measures, including demand management, in case of an emergency. We are equipped with load management and high-efficiency equipment for the peak seasons in the winter and summer and to spread power demands. With the use of load management equipment, such as the maximum power management device, the maximum power decreased by 21MW, as well as 490MW with high-efficiency transformers and energy-efficient equipment at old facilities.

Maximum Power and Load Factor

Maximum power
(Unit : MW)



Load factor
(Unit : %)



Stable Power Supply with HVDC* Transmission System

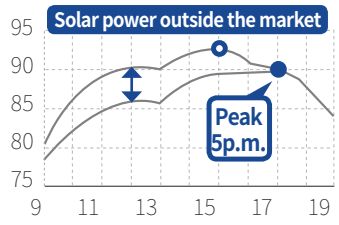
KEPCO is pushing for the large-scale construction of transmission lines using HVDC. The HVDC system is becoming more needed as power supply is complex and its scale is growing with the current power system. The HVDC system can control the amount of power transmitted, which enables an stable operation of the power grid and prevents regional blackouts in case of potential failure in the 765kV transmission lines. Moreover, power transmission towers can be smaller and simpler in shape, which creates better views, and the transmission lines can be more accepted by local residents because the electromagnetic waves reduce with the uniform scale and direction of voltage and current.

* HVDC transmission system : alternating current generated at a power plant converted into direct current and transmitted, which is then converted back to AC

Analysis on Impact of Solar Power Supply outside Power Market

As the amount of solar power generated in direct transaction with KEPCO is increasing, so is the power supply volatility. We analyze the impact of solar power supply outside the power market and apply it to the daily demand prediction to make the power system stable, factoring in the volatility. As a result, we marked the world's highest demand prediction accuracy in 2021 (98.86%*). We seek to reflect the impact of solar power supply in predicting the national electricity demand in cooperation with the government.

* U.S. prediction accuracy : 97.9-98.3%



Demand in power market (GW)

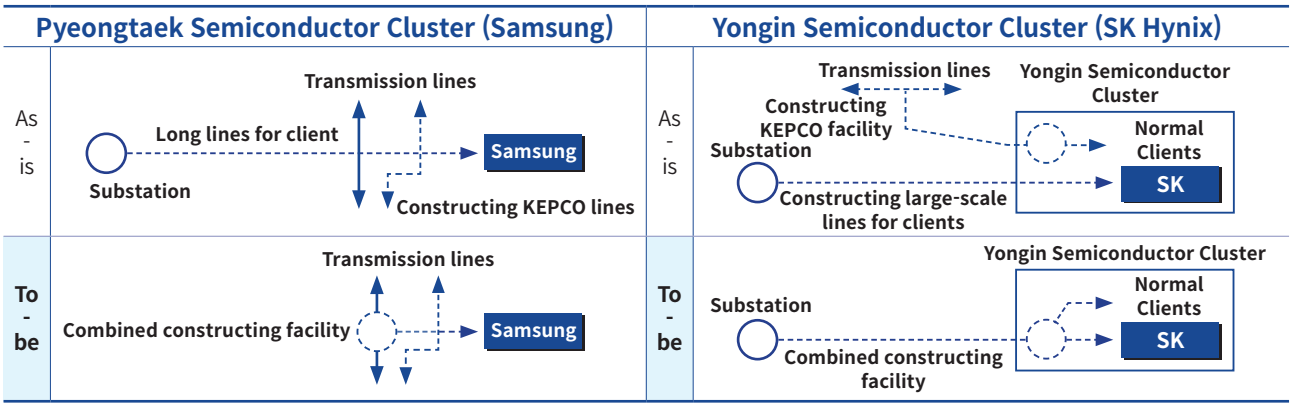
Facility Inspection with Autonomous Drones

KEPCO reduced the time and cost of inspection by about 20% while preventing safety accidents by using drones to inspect lines and minimizing people climbing up control tower. By adding an AI automated tracking system for transmission facilities to drones, we automated the inspection process from take-off, flying, recognition, filming, and landing. We developed a 3D map and the "Drone Road" based on the 3D grid using facility information that hinder the drones from flying, such as transmission towers and high-voltage lines, for the drones to fly outside the visibility range safely. The transmission lines work as median strips that divide the two directions of the drone road to minimize collision between drones.

Autonomous drones

Business Case **Optimal Electricity Supply in K-Semiconductor Belt**

Following the government's plan to invest in building a K-Semiconductor Belt to stabilize the supply of semiconductors, KEPCO will build the optimal electricity supply chain in the belt based on the integrated facility plan for high-capacity clients, including Samsung Electronics and SK Hynix. The long lines in the semiconductor cluster of Samsung Electronics will be replaced with short-distance integrated substations to secure power supply capacities, and the separate lines of SK Hynix and KEPCO will be integrated to cut the total length and investment cost in the cluster of SK Hynix. We expect that local residents will be more accepting of the optimal power supply chain than a complicated one, while lowering investment costs compared to the clients building individual supply chains.



Advanced Facility Construction and Management System

Innovation in Facility Construction and Management

Optimizing Power System for Reasonable Supply of Renewable Energy

We, at KEPCO, is changing the paradigm in the construction industry by building power plants after building the transmission system instead of the other way around based on the analysis on the issues involving power systems in line with the Nationally Determined Contributions(NDC). As for the offshore wind power projects that require substantive capital and technology, such as the one in Shinan, we plan to connect the power system immediately after the complexes are constructed by building joint connection facilities. We upgrade the power system in areas that are favorable for renewable energy and recommend building power plants in an area with a power system to prevent excessive investment for system connection and delays due to not considering power systems when building power plants. We plan to continuously increase investment to establish a roadmap for upgrading power networks in line with the NDC and build a transmission network first as it takes longer to construct.

New Technology and Eco-Friendly Construction

KEPCO minimizes costs and environmental pollution by developing and applying an advanced eco-friendly construction method to maximize the efficiency of construction investment. To address the issue of adding electric power conduit pipes due to connecting the underground single-conductor transmission cables separately, more single-multi conductor cables can be connected by diversifying the specification of the Y branch joint boxes for underground cables, increasing the transmission capacity using existing conduit pipes. We are developing non-destructive exploration techniques to learn the location, size, and direction of underground objects by using the technology to analyze electric fields and deep learning, which can also predict buried objects and increase accuracy, leading to the prevention of accidents, such as buried objects being destructed during construction.

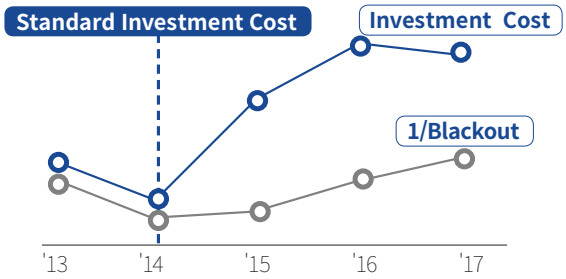
Joint Review on Investment into Transmission, Distribution and Transformation

KEPCO reduced investment costs for transformations by reviewing the construction and operation of a power system jointly instead of establishing a transmission and transformation plan and the plan to connect them to distribution separately. Excessive investment was likely before as the opinions on the adequacy of the investment were heard and adjusted insufficiently, but in the latter case, relevant teams jointly review and discuss the plans and new technologies, thus preventing excessive investment. By doing so, KRW 300 billion was saved in the budget compared to the early 2022 plan.

Analysis on Relationship between Investment Costs and Quality of Electricity

Despite the increase in investment to upgrade power systems, the effect of increasing investment is not as visible when the investment scale exceed a certain level. For example, blackouts are not decreasing as rapidly. There is also a difference in when the investment starts to make an impact. KEPCO analyzed the investment sizes and the number of blackouts(power quality) between 2007 and 2021 and set the budget based on the investment cost at the point of stagnant improvement in power quality to prevent excessive investment. KEPCO will continue to improve our facility construction and management system through various efforts, such as analyzing the relationship and setting the budget for facility upgrade adequately.

Investment-blackout relationship



* Less failure reduction if the investment is above a certain level(2015)

Business Case **Demonstration Test Bed for Substations**

KEPCO built a demonstration test bed for substations where power equipment can be assessed in the same circumstance as the actual power system. Korea's first demonstration test bed for substations is composed of a 154kV substation and a high-voltage test unit. We plan to use the data in predicting when to replace old facilities and identifying the root cause of a failure to increase the reliability of substations and the quality of electricity.

Test bed for substations to transition to and demonstrate eco-friendly transmission and transformation equipment

Construction Model for Mutual Growth with Local Communities

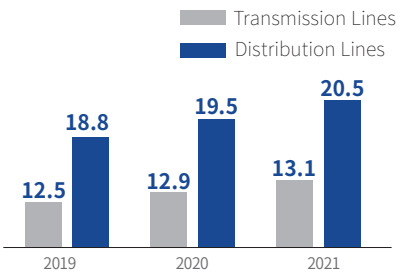
Local Residents' Right to Decide on Construction Projects

KEPCO respects the local residents' say in the construction project to build electricity facilities that meet the expectations and requirements of the residents and the community. The share of local residents in the Site Selection Committee increased to 67%, and local residents can make decisions on the design of the transmission line poles. As such, we strived to have local residents more accepting.

Construction Mindful of Environment and Local Residents

KEPCO works with and improves local communities by reflecting the voice of the residents, increasing acceptance, and protecting safety and the environment. Our first choice, when installing transmission lines in cities and near a resident area or school, is to install them underground or to upgrade or move the lines to keep the streets safe and clean . We are also aiming for a transition to community-friendly facilities, such as substations that have facilities open to residents and city-friendly substations.

Underground transmission (Unit : %)



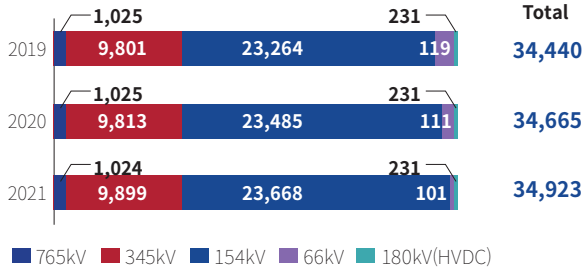
Building Next Generation Electricity Grid

9th Long-Term Transmission and Transformation Facility Plan

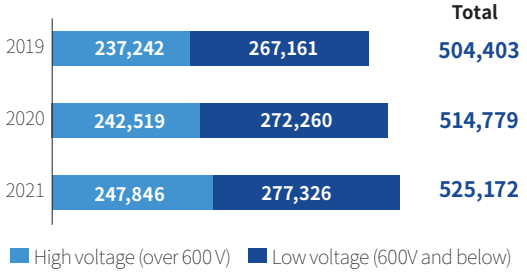
KEPCO established the 9th long-term transmission and transformation facility plan with the aim of having the optimal energy mix and building a stable power system centering around the consumers and the environment, upon which we make investments and take actions to supply electricity stably. The plan includes long-term specific plans for the transmission and transformation facilities for 15 years(2020-2034). We plan to expand our electricity grid to 48,075C-km of transmission lines(1.39x increase vs. 2019), 1,154 substations(1.34x increase vs. 2019), and 478,222MVA of transformation facilities(1.44x increase vs. 2019) by 2034.

* As per the 9th long-term transmission and transformation facility plan, which will be revised according to the 10th Basic Plan for Power Supply and Demand

Length of transmission lines (Unit : C-km)



Length of distribution lines (Unit : C-km)



Business Case **23kV Superconductivity Platform Pilot Project**

KEPCO held a groundbreaking ceremony for the 23kV super conductivity platform pilot project in June 2022 at the Sunyu Substation in Paju. Its aim is to build a small-scale superconductive station(1/10 of a normal substation) between Munsan Substation and Sunyu Substation by December 2023 and provide electricity to nearby areas stably with two-track supply lines using superconductivity technology . If the superconductivity platform technology is successful, cities can be equipped with eco-friendly power systems without large-scale civil construction, and it is expected to contribute to increasing renewable energy and achieving net-zero.

23kV Superconductivity Platform Pilot Project

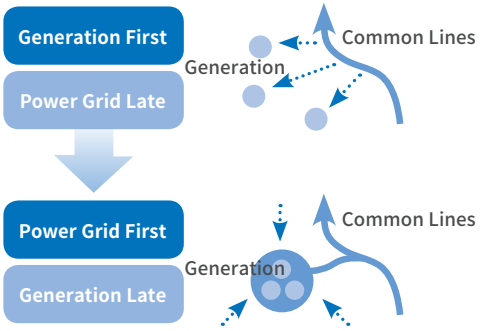
*Superconductivity technology : A technology that uses the superconductive phenomenon in which the electric resistance becomes closer to 0 when a matter is cooled to an extremely low temperature. It enables energy transmission and communication with low loss.

Building Future Electrical Grid for Green Energy Mix

Increasing Capacity of Renewable Energy in System

Paradigm Shift in Transmission / Transformation Construction

Although renewable energy is expected to increase in the future, there is a gap between the time to construct a renewable energy power plant(average 3 years) and that of a transmission/transformation facility(up to 6 years), hindering timely system connection. To address it, KEPCO established a transmission / transformation facility plan considering business opinions, potential amount of renewable energy, and authorized capacity of power generation, and centering around the power grid and consumption instead of power sources. We are reducing the amount of delay in renewable energy connection by building a power grid in advance in areas that have favorable conditions for using renewable energy.



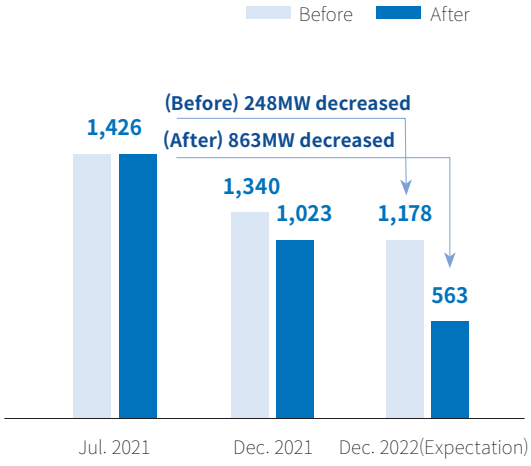
Pursuing Legalization of Planned Site Selection System

KEPCO pursues the legalization of the planned energy site selection system to facilitate the supply of large-scale renewable energy and parceling out transmission rights under the leadership of the central and local governments to prevent disorderly and inefficient land development and promote the efficient use of renewable energy. In partnership with the Ministry of Trade, Industry and Energy, we plan to specify the system by listening to the voice of stakeholders in the industry and academia. Moreover, we will lead the effort to promote the efficient use of renewable energy, decentralize power demands and foster balanced growth by linking the renewable energy sites and power demands.

Resolution of Delay in Connection with Renewable Energy

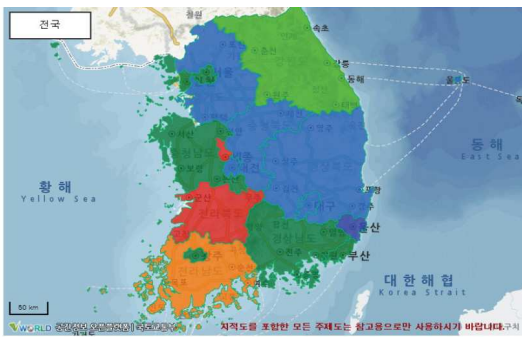
KEPCO increased the capacity of transmission and distribution facilities by adding lines and improving the system to minimize delays in connecting renewable energy. We reviewed the adequate additional capacity for renewable energy, considering the minimum load(used in households and commercial places) in distribution lines. We allowed the capacity per line to be increased from 12MW to 13MW if the minimum load exceeds 1MW according to an on-site test for the lines. We increased it from 200MW to 215MW, considering the minimum load, for substations with prolonged delays. These measures allowed additional 317MW of renewable energy without increasing substations and distribution lines. We aim to connect a total of 624MW by the end of 2022 by solving the delay of 307MW through increasing transformers and distribution lines.

Connection delay for renewable energy



Renewable Energy Sufficiency Data

There is a supply imbalance between the metropolitan and non-metropolitan areas, and the supply of renewable energy is concentrated on some areas. Due to the imbalance between supply and demand, the need for strengthening the power grid is increasing. To solve this issue, we provide the renewable energy sufficiency data, including connectable capacity of renewable energy and the facility data, on our website, which prompts the decentralization of renewable energy. With this, large-scale renewable power generation businesses(>40MW) that wish to connect to the transmission grid can establish a business plan focusing on areas with insufficient renewable energy.



Map of renewable energy sufficiency

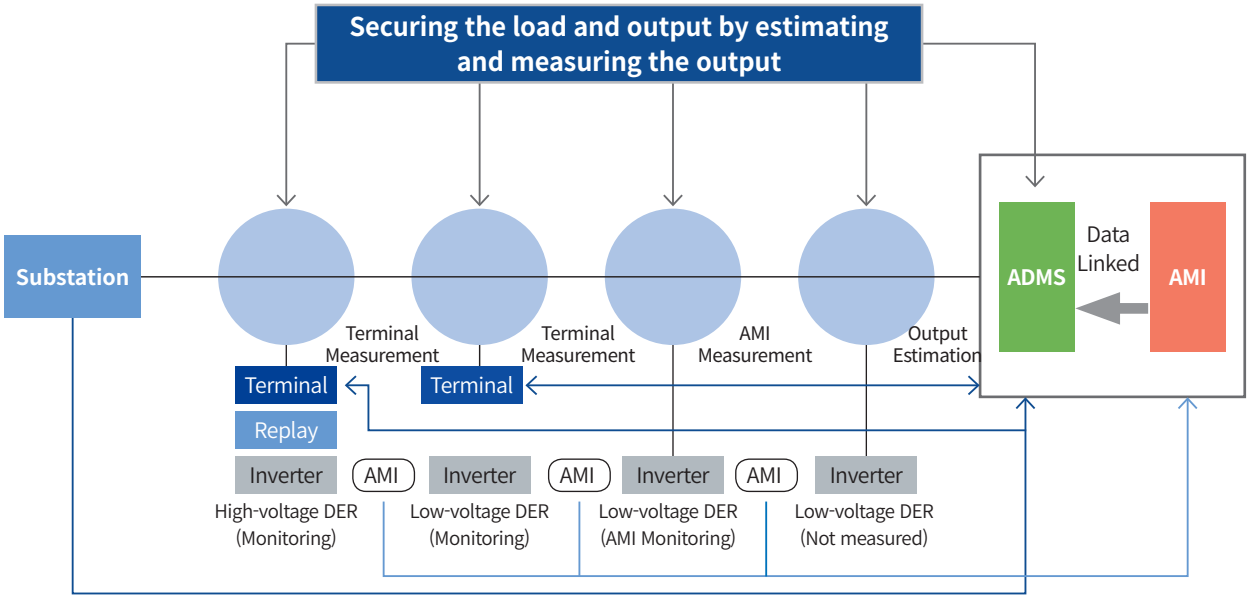
Advanced Operation of Renewable Energy

Renewable Energy Operation System

To expand dispersion energy, an optimal plan and operation of distribution grid is needed in the short term and an operator of the distribution grid market in the long term. KEPCO are developing a DSO(Distribution System Operator) system and relevant systems and technologies for efficient and systematic management. KEPCO developed the next generation distribution grid control system for an integrated management of dispersed power sources and completed the demonstration operation in Choongcheongbuk-do that included installing information terminal devices and calculating minimum load at the renewable energy power plant, which will be expanded to 15 headquarters in the next 3 years(3→5→6) while providing AMIs to small-scale power generation companies first.

Integrated Control System for Renewable Energy

KEPCO established a government-funded plan for an integrated control system for renewable energy to ensure the stability of the power system. We plan to control the output in case of emergency, such as unstable supply or system failure, by monitoring output and quality of electricity in real time, installing information terminal devices at more than 500 kV renewable power plants and upgrading inverters. KEPCO will increase the stability of the power system by resolving the volatility of renewable energy through real-time information sharing between renewable energy generation operators, system operation, and power transmission and distribution management entities.



Business Case **KHNP's Renewable Energy Control Center**

KHNP is involved in the renewable energy output prediction system, establishing the Integrated Renewable energy Control Center to improve the level of prediction despite the volatility in renewable energy. The control center allows KHNP to manage the solar and wind power plants and accumulate facility data for the prediction of renewable energy output. KHNP seeks to improve the prediction capacity by accumulating data from not only its own facilities, but also external facilities, and build a new business model in the electricity intermediary business by improving the accuracy of prediction.

The Renewable Energy Control Center

Industry Innovation through Digital Technology

Direction of Digital Transformation

Mid-term Strategy for Digital Transformation

KEPCO is accelerating the digital transformation to establish a data-centric management system, including creating new businesses based on electricity data. To that end, we established the mid-term strategy for digital transformation in 2019. We are continuously implementing the strategy to respond to changes in policies related to management and energy and make management more efficient, for example, cutting operation costs and capital investment.

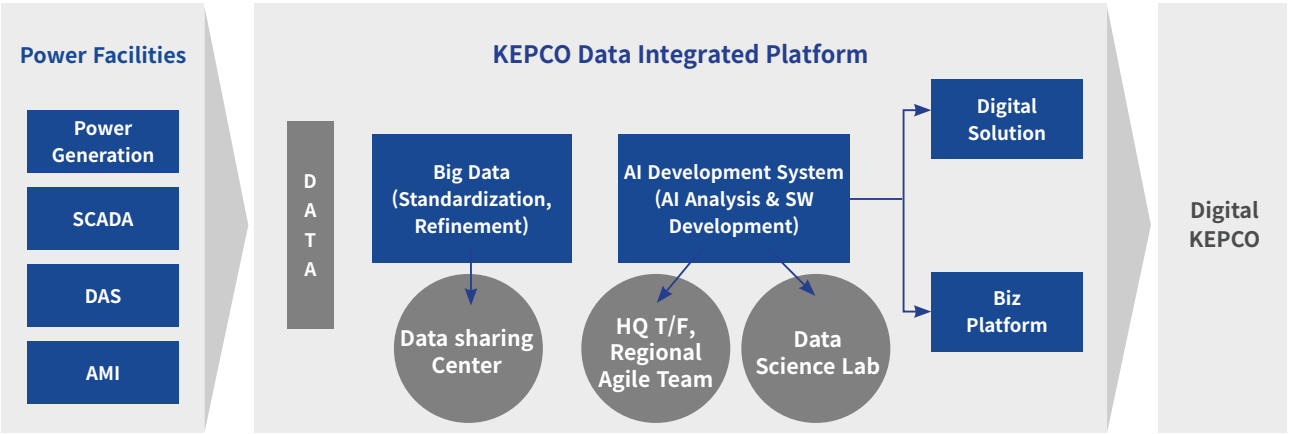
Strategy	Advancing digital infrastructure	Intelligent safety/ work system	AI-based energy efficiency	Profit creation from new biz
Goal	Internalize DX company-wide	Increase DX tech for safety	Promote carbon neutrality	Expand data biz
Task	• Increase the use of the integrated data platform • Create an e-data standard • Foster DX* experts • Boost data analysis skills	• Intelligent construction safety management system • Build a digital safety process • Mobilize transmission & distribution • Make site work more efficient	• Increase renewable E acceptance • Optimize ReE connection • Improve IDPP platform • Engage in EERS to encourage saving energy	• Strengthen EN:TER Data Biz • Promote data open business • Facilitate AMI service • Expand e-data integration service

* Digital Transformation

Digital Infrastructure Development

Advancing KEPCO Data Integrated Platform

KEPCO completed the creation of the KEPCO Data integrated Platform(KDP) in February 2021, on which data is collected, refined, and processed. Employees can utilize software development tools and AI technology to create a new business model based on big data, analyze and use data efficiently, and innovate business.

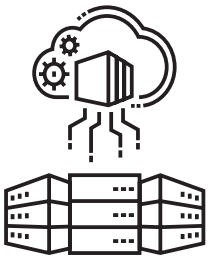


Asset Management System (AMS)

KEPCO is developing the Asset Management System(AMS) to enhance the efficiency of investment by assessing the performance of facilities based on big data and determining the priority of investment. The AMS assesses risks based on the data on the entire lifecycle of facilities and considers the optimal time and cost of investment to make an investment decision. This is significant in that it changes the paradigm of facility management from overall replacement on expiry dates to selective replacement depending on the risk of each facility. We are developing the AMS for 10 transmission and distribution facilities, which will be expanded gradually.

Intelligent Power Facility System

Intelligent Digital Power Plant(IDPP)



KEPCO is developing intelligent digital power plants(IDPP) based on big data and AI technology to make power generation efficient and economical. Big data is collected from the vibration sensors and pressure sensors of facilities, which is used in optimizing the operation and repair of the facilities. The facility operation can be optimized with the use of virtual digital power plants in the digital realm, converged with IoT, big data, and AI technology. The collected and analyzed data can be the basis for identifying operation conditions and repair period. Following the optimization, pollutants, such as fine dusts, CO2 and NOx can be reduced as well as the time it takes to inspect facilities and safety accidents. We will lead the power generation O&M market with the IDPP, creating high value-added apps in partnership with domestic power generation companies to incorporate their technology.

Intelligent Digital Substation(IDSS)

KEPCO successfully developed the core technology of Intelligent Digital Substation(IDSS) with a remote operation system and an intelligent digital device that monitors, measures, controls and protects all power facilities at the substation as per IEC 61850, which is the communication standard for substations. IDSS enables asset management upon digital data while removing physical risks via cybersecurity and reducing site areas and maintenance costs. It is effective for preventing failure as the AI can decide on the status of facilities and the electric device can inspect facilities in real time. We established the 2035 Substation Digitalization Masterplan to go completely digital, and plan to strengthen our capabilities in digital infrastructure(digitalizing 345 kV substations), applied technology(integrated system for automated substation system), system quality(IED), digital troubleshooting manpower and business automation. Currently, 130 154kV-substations are digital.

Demonstration of Digital Twin Technology

KEPCO and group companies jointly developed the digital twin technology for boilers and steam turbines and applied it to coal-fired power plants in Korea to predict and diagnose the status of core equipment in real time. The digital twin system can make optimal decisions by predicting pollutions and the efficiency and reliability of facilities in various virtual scenarios.

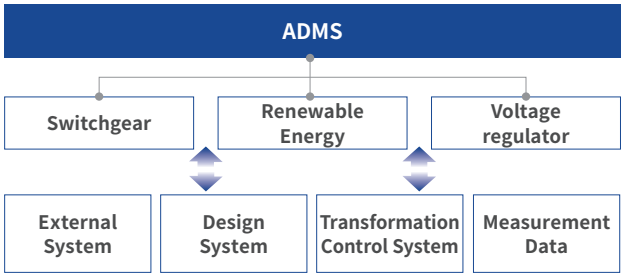
Early Warning System

We developed an early warning system on which facility data and AI technology are integrated, and completed the demonstration study in Korea. The system prevents failure by detecting abnormal operation of equipment at power plants and diagnosing failure or a breakdown before it occurs.

Advanced Distribution Management System(ADMS)

KEPCO developed and verified the Advanced Distribution Management System(ADMS). The system operates and manages the distribution grid across the country, manages the quality of electricity, and mitigates the volatility and intermittency of output that changes depending on weather conditions. For example, it identifies the location of failure in case of a blackout and the quality of electricity in lines and monitors the quality (e.g. electric flow in both ways, load, output, voltage, etc.) of power in the distribution grid in real time. It also estimates the output for accurate prediction of the output of renewable energy, adjusts the power system to stabilize electricity quality, and calculates the optimal voltage. We plan to complete the ADMS in 15 headquarters by 2024, starting in an area with high share of renewable energy.

Integrated control system for distribution grid and renewable energy



Intelligent Digital Business

Efficiency-Focused Mobile Business Process

We are gradually going mobile, starting from areas with room for increasing efficiency and lowering social costs. We are reducing inspection time by making on-site tasks mobile(e.g. facility inspection and log management), while saving KRW 900 million per year by switching paper bills to messages or e-mails. We are improving customer services, reaching 91.4% response rate at the customer center by making more inquiries to mobile. We are utilizing the mobile function in multi-faceted assessment, employee communication and cooperation, mobile community, and other ways to improve the organization.

AI-based Business Automation

RPA(Robotic Process Automation) refers to AI-based business automation used in innovating business through data analysis, cutting costs, and improving services. The top 10 RPA tasks were selected through a company-wide contest, which are applied in business management and operation.

Application and results of RPA

Category	Automatic application of welfare discounts	Streamlined issuance of land registers for applying for power use	Automated search for potential/actual insolvency
As-is	Discount suspended in case of moving	Land register issued by employee per application	Data collection system for each weak credit
To-be	Welfare discount applied without applying for it	RPA issues a land register and notifies personnel	Data on weak credits sent from sources automatically
Result	Welfare discount reception rate 81.2%	4,135 documents issued automatically	276,000 cases of potential insolvency automatically identified

Intelligent Integrated VOC Analysis System

We developed and are operating the intelligent integrated VOC analysis system to manage inquiries from submission to completion in an integrated way. The separate VOC channels from the KEPCO website, the customer center, and e-People were integrated. VOC is analyzed based on work types, urgency, and customer emotions using AI, upon which the customer service and system are improved.

Digital Business

Promoting Energy Marketplace (EN:TER)

KEPCO operates an integrated energy business platform, address the difficulties of energy businesses and service users and create new values in the energy sector. In EN:TER, various energy-related services and products can be traded, applications using energy data can be used, and renewable energy can be sold and purchased. We are adding energy-specific contents, such as statistical data on customer contract history, and services, such as a PPA portal and a green premium system to support the creation of a new business model.

EN:TER Services

Electricity Data Service	Enhancing Energy Efficiency		Trading Renewable Energy
• Energy Data Open Portal • Energy Data Service Market • Energy Data Portal for Service Providers	• Support for high -efficiency home appliances • Energy efficiency (K-BEMS) • Enhancing energy efficiency • New energy business fund)	• Power demand management(DR) • Energy cash back • Energy Guards, Carbon Eraser • Energy consultation	• Third-party PPA • PPA with KEPCO • Green Premium bidding service • Renewable energy transaction information

Sophisticated Customer Service

Increased Use of AMI(Remote Metering)

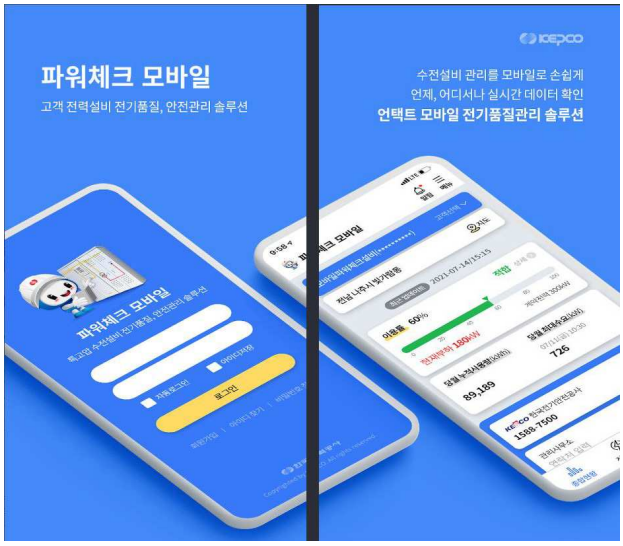
KEPCO plans to supply 22.5 Million AMI(Advanced Metering Infrastructure) devices for remote metering by 2024 and use them as the basis of increasing energy efficiency, providing choices to customers (e.g. rating per hour), and creating a new business model. AMI is a demand-reactive system that allows KEPCO to meter electricity use remotely through two-way communication and notify the customers of their electricity bills at any time so that they can use electricity when the cost is lower. Despite the supply crisis of semiconductors due to COVID-19, we supplied additional 520,000 devices by revising how we order materials and assess equipment technology. We also seek to strengthen the security of electricity data and the construction and operation efficiency by using AMI 2.0 with improved data protection and installation method. AMI 2.0 costs less to install because it has both metering and communicating features and remote operation can be expanded as the software is standardized. Moreover, the electricity-related personal data of customers can be protected with AMI's security feature.

Increased Efficiency of Customer Electricity Facility Management

We continue to increase customer values by providing tailored digital services. We provide information on the quality and safety of electricity on mobile devices for large-scale facilities, such as buildings and factories through the Power Check Mobile service incorporated with AI and data collected via AMI. Electrical safety managers can monitor multiple power facilities at the same time on the Power Check Mobile app, and overload failure can be prevented by using the load pattern prediction AI and an alert system. The safety managers can operate, maintain and repair facilities efficiently with the monthly electricity quality analysis reports.

Per-Hour Rate System for Households

To reflect customers' pattern of use in billing, encourage an efficient use of electricity and diversify rate systems, we adopted the per-hour rate system for households that provides price signals based on unit costs. The system allows users to consume electricity more affordably as the price is higher when the demand is high and lower when the demand is low. It is adopted first in Jeju with high distribution of AMI. The AMI customers can compare their bills by viewing the actual consumption data on the Power Planner app, and the non-AMI customers can do so by viewing their energy pattern standard on KEPCO's website. By adopting it in Jeju, it is expected to stabilize the power system by transferring up to 7.7MWh during daytime when output control occurs.



Power Check Mobile, solution for electricity quality and safety management

Business Case **AI Energy Efficiency Using Energy MyData**

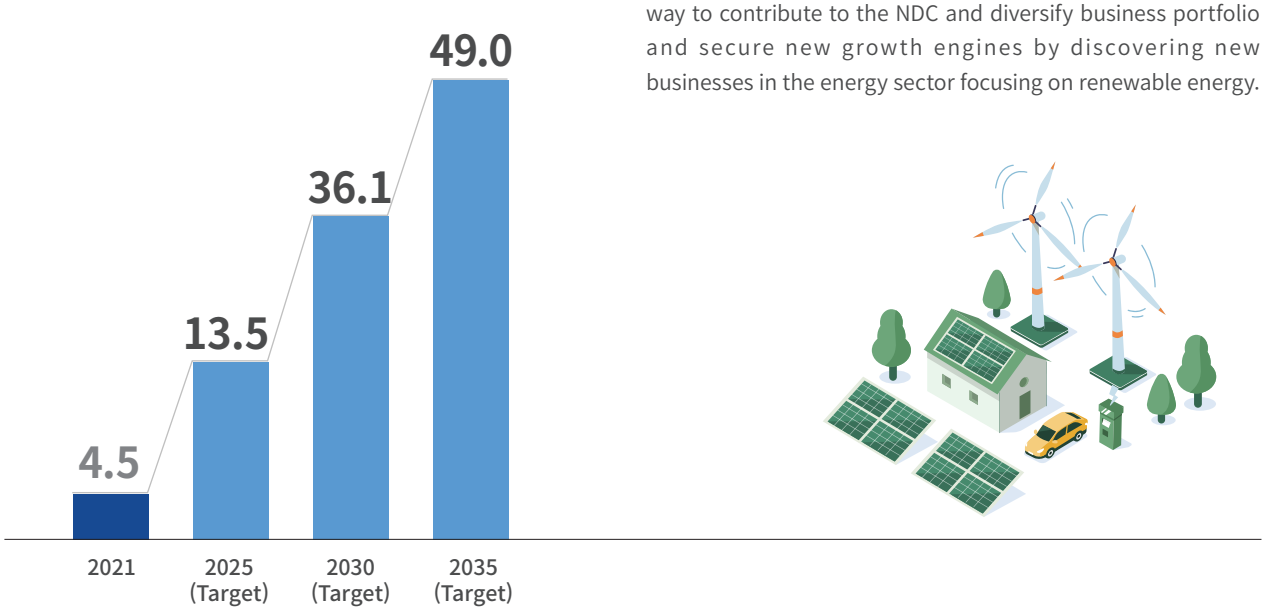
KEPCO is conducting a pilot project using the Apartment Energy MyData in partnership with other companies, such as Samsung Electronics. We collect energy MyData for customers who live in apartments, which used to be neglected in terms of energy efficiency, and provide real-time consumption data to them. Samsung Electronics offers energy saving services by connecting the smart app to control air conditioners and air purifiers. Through the pilot project we plan to establish a standard for collecting and sharing energy MyData and develop various energy efficient services using the data.

AI Energy Efficiency Using Energy MyData

Diversified Future Growth Business Portfolio

Group companies Roadmap for Increasing Capacity of Renewable Energy Facilities

(Capacity of facilities owned, excluding hydroelectric power)
(Unit : GW)

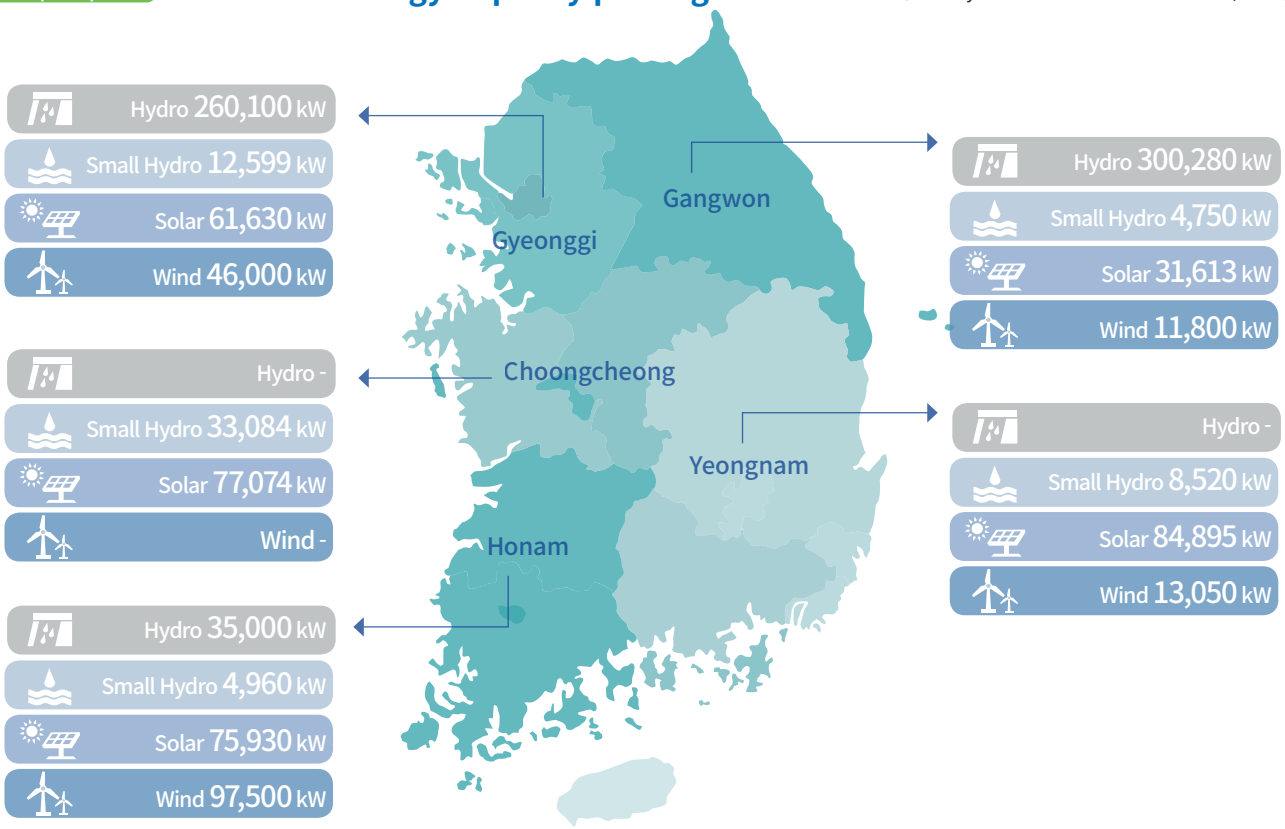


KEPCO and group companies will achieve carbon neutrality in power generation by supplying renewable energy in a rational way to contribute to the NDC and diversify business portfolio and secure new growth engines by discovering new businesses in the energy sector focusing on renewable energy.

※ As per the 9th long-term transmission and transformation facility plan, which will be revised according to the 「9th Basic Plan for Power Supply and Demand」

Group companies Renewable Energy Capacity per Region

(Directly owned facilities as of Dec. 31, 2021)



Renewable Power Generation on Idle Sites

KEPCO and group companies push for solar power generation using idle sites to develop the land efficiently and promote the use of renewable energy.

KOWEPO built 7.7MW solar power plants on 14 idle sites, such as rooftops, parking lots, and built-up parts of highways, in partnership with Korea Expressway Corporation, while conducting a 40MW solar power generation project using an idle site of a private company located near the Pyeongtaek headquarters.

EWP also constructed 10.8MW solar power facilities on the rooftops of 72 factories in an industrial complex in Busan. KEPCO and the electric power group companies will utilize public and private idle sites and promote renewable power generation to protect the environment and foster local economies in a balanced way.

KOWEPO l Construction of Solar Power Generation in idle sites

(Directly owned facilities as of Dec. 31, 2021)

Group companies **Group Companies Capacity of Solar Power Facilities**

331 MW

Group companies **Group Companies Output of Solar Power Generation**

492,566 MWh

Leading Hydrogen Industrial Ecosystem

KEPCO and group companies have developed and are adopting the H2GT(Hydrogen to Gas Turbine) technology to reduce GHG emissions, aiming to transition to 100% zero-carbon hydrogen to generate power by 2050. We strive to secure a value chain in the hydrogen business from production to supply and transportation to promote the hydrogen economy.

For example, KOSPO constructed the Shinincheon Bitdream Hydrogen Fuel Cell Power Plant, which is the world's largest(80MW) in October 2021 and declared to lead the domestic hydrogen ecosystem with the hydrogen business roadmap that includes developing hydrogen technology, building infrastructure, and securing production technology.

KHNP is pushing for the hydrogen convergence business model for producing hydrogen and building and operating hydrogen charging stations in cooperation with hydrogen suppliers. KHNP seeks to create the Korean U-Shaped Hydrogen Belt upon the business model.

KHNP | U-Shaped Hydrogen Belt

KOSPO | Shinincheon Bitdream Hydrogen Fuel Cell Power Plant

Group companies **Full Cell Capacity**

305 MW

Group companies **Output of Fuel Cell Generation**

1,993,415 MWh

(Directly owned facilities as of Dec. 31, 2021)

Diversified Future Growth Business Portfolio

Group companies Sales and facility capacity of overseas projects

Sales

KRW **3.1391** Tn

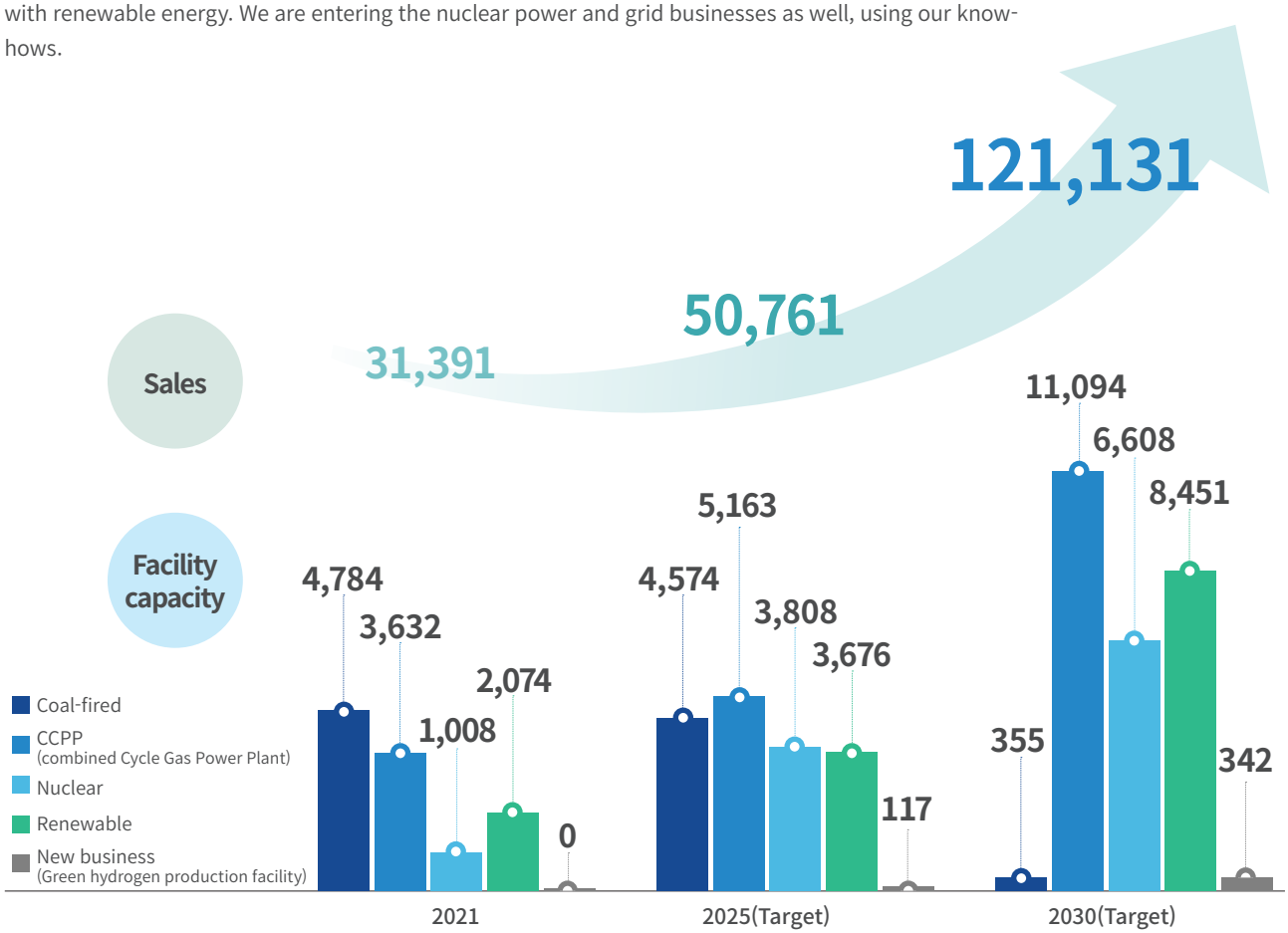
Facility capacity

Total **11.9** GW

Group companies Mid-term roadmap for overseas projects

(Unit : KRW 100Mn, MW)

KEPCO and group companies are exiting from coal-related businesses and entering more countries with renewable energy. We are entering the nuclear power and grid businesses as well, using our know-hows.



Transmission Grid Project in UAE

KEPCO won the order of building and operating the HVDC underwater transmission grid for Abu Dhabi National Oil Company(ADNOC) and TAQA. KEPCO's HVDC technology and experience accumulated in Korea were recognized on the global stage, and the project is meaningful in that the public and the private came together in the co-prosperity model with stronger competitiveness. We would like to gain initiative in winning electrical grid projects in Central and South America and Central Asia in addition to the Middle East.

KEPCO l The Conceptual Diagram of UAE HVDC Transmission Grid

KEPCO Number of Jobs

4,307

KEPCO Total Cost

$ 3.84 Bn Approx.

Increase in Overseas Nuclear Power Projects

KHNP creates a future profit base by winning orders that are tailored to the country. For example, it won a project to build four 1,200MW nuclear power plants in El Dabba, Egypt through close cooperation with local companies via in-person meetings and site visits. KHNP also entered the EU market, including Romania, Slovenia, and Spain, using its technologies from operation to repair and disassembly.

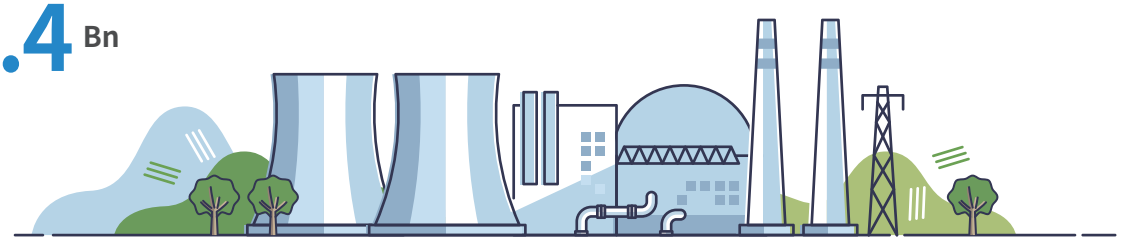
KHNP | Contract signing for constructing nuclear power plants in El Dabba

Group companies Number of Overseas Nuclear Power Projects

6 Cases

Group companies Scale of Overseas O&M Project Orders

KRW 14.4 Bn



Leading the Renewable Energy Sector

Increasing Supply of Renewable Energy

Renewable Portfolio Standard

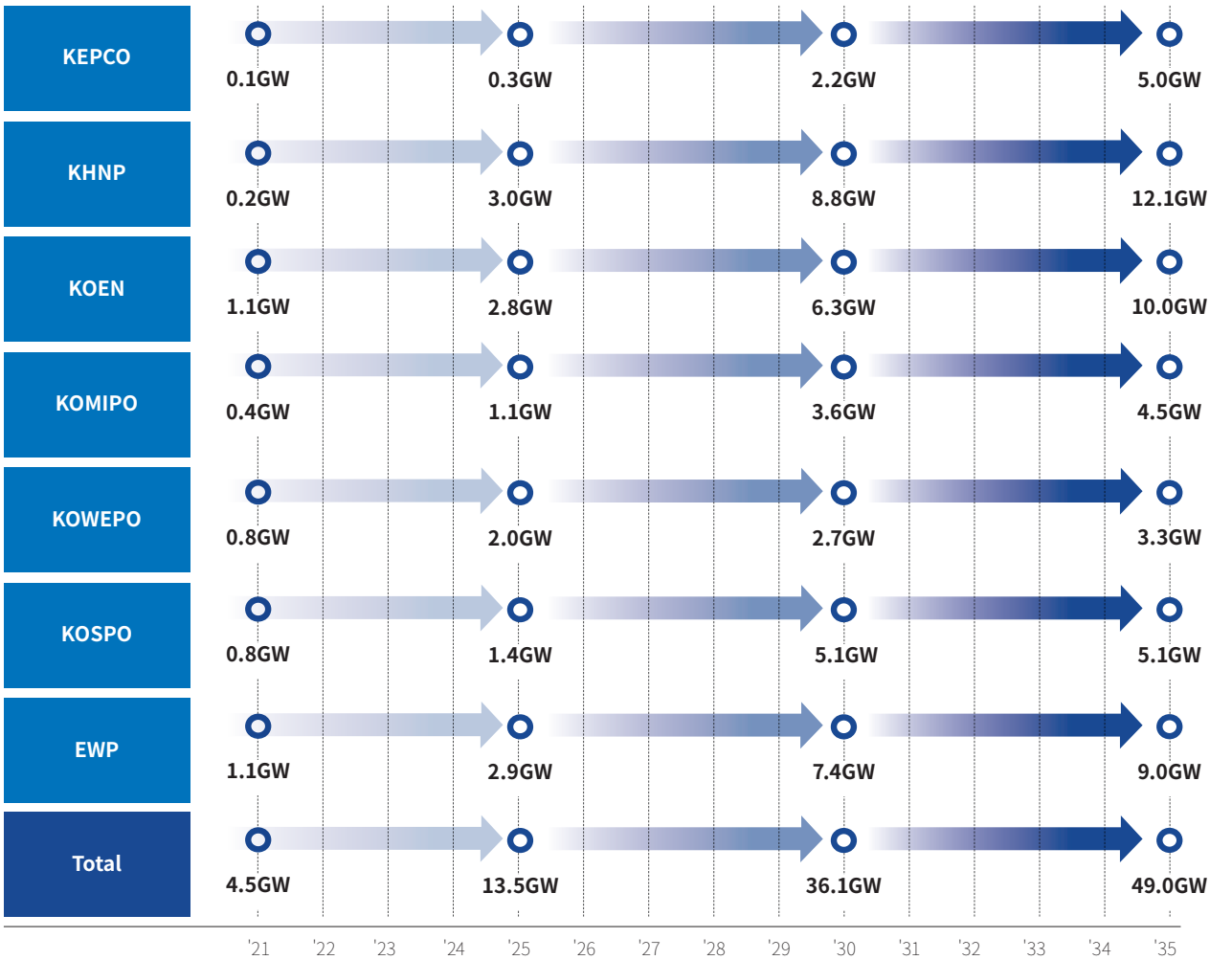
The Renewable Portfolio Standard makes it mandatory for power generation companies(Suppliers) with a capacity of 500MW or more to include at least a certain share of renewable energy(Mandatory supply) in the total power generated. As KEPCO and the electric power group companies participate in the RPS, we strive to increase the share of renewable energy in Korea through various efforts, such as building renewable energy facilities and purchasing renewable energy certificates.

Contribution to Reaching National Renewable Energy Supply Target

The government is pursuing net-zero policies, such as phasing out coal-fired power plants and increasing renewable power plants as per the 9th Basic Plan for Power Supply and Demand Following that, 30 out of 60 coal-fired power plants will be shut down by 2034 and 24 out of the 30 plants that are shut down will turn into LNG power plants. KEPCO is successfully operating the Southwest Jeollabuk-do Offshore Wind Power Demonstration Project(60MW), which is the nation's first public-led large-scale offshore wind power project, and is planning on a total of 2.8GW offshore wind power projects, including the project in Jeju(100MW), Southwest Jeollabuk-do(100MW), and Shinan(1.5GW). We also run the Miryang Hope Light Solar Power Project, in which the profit is shared with local residents, and building a 110MW-capacity solar power facility on idle land in a school campus or a local government. The target s hare of renewable energy by 2030 is 21.5% as per the Working-Level Plan of the 10th Basic Plan for Power Supply and Demand, and we will raise the share of renewable energy in a rational and planned way once the 10th Basic Plan is confirmed.

Renewable Energy Roadmap of Electric Power Group Companies

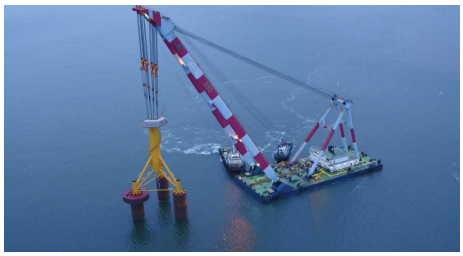
(Unit : GW, Accumulated)



World's First Large-Scale Offshore Wind Turbine Installation Technology

KEPCO became the world's first to develop a batch installation technology(Multi-purpose Mobile Base of MMB) for offshore wind turbines, which can be assembled on land, transported to the sea, and installed in a designated area. We launched a special MMB vessel that delivers the turbines to the sea in July 2021. Using this technology can cut the installation cost by about KRW 3.7 billion for a 5MW turbine, and the installation time can be reduced from 90 days to 10 days. It is also eco-friendly as it eliminates noise, vibration and flotation.

* Batch installation technology : A technology that allows a turbine to be assembled at the port where it is safe and the entire structure to be picked up and delivered to the sea to be installed



Offshore wind turbine MMB vessel

EWP | Floating Solar Panels on Daeho Lake

EWP acquired an approval for constructing and operating 98MW floating solar panels around Daeho Lake in Seosan, Choongcheongnam-do by signing an MOU with Seosan on the floating solar panel project that is mutually beneficial to the local community. EWP held more than 150 meetings with local residents before starting on the project to earn their acceptance, and strived to hear from various stakeholders.
Under the MOU, Seosan will provide administrative support, including authorization, and Korea East-West Power will involve more local constructors and share the profit from power generation in local communities, such as Daesan-eup. EWP will take the lead in transforming Choongcheongnam-do into a region of green energy with its own capabilities.

Solar power generation complex using an abandoned saltern

Take-off of Jeju Hallim Offshore Wind Power Project

KEPCO, KOMIPO, KEPCO E&C, a constructor, and a financial organizer signed a project financing agreement on the Jeju Hallim Offshore Wind Power Project for the operation and maintenance of offshore wind power plants in February 2022. In the project, a total of 100MW offshore wind power complex (18 5.56MW turbines) will be built in the sea in Jeju with KRW630.3 billion. The designation of the area, the use of public waters, and other authorizations have been granted, thus it is being constructed with the aim of starting commercial operation by 2024. KEPCO oversees the project, and KOMIPO plans to secure 800,000 REC by producing 234GWh renewable energy per year in this project. This project is meaningful in that all turbines are domestically made and the capital is entirely from within the country, establishing a standard for building a wind power ecosystem that is full of domestic technology and capital strength.

Signing a PF agreement on Jeju Hallim Offshore Wind Power Project

KOMIPO | Korea's Largest Solar Power Site

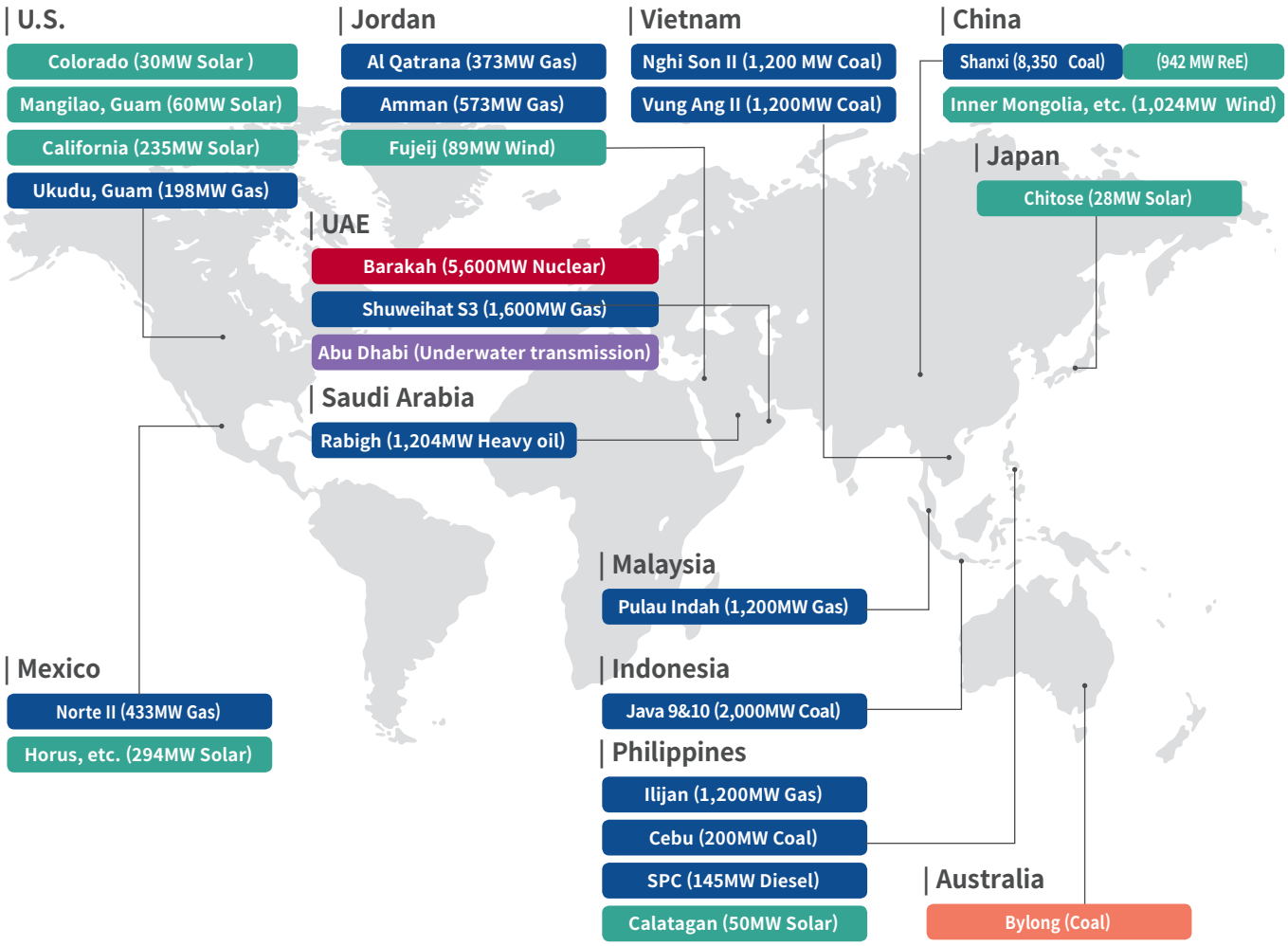
KOMIPO constructed a solar power plant and a solar ESS power generation complex on a 1 Million-abandoned saltern in Hasa-ri, Yeonggw ang-gun. The complex is equipped with a 100MW solar power module and 312MWh ESS facilities generating solar power. It can pro duce 139GWh per year, which is sufficient for about 62,000 households for a year. The solar panels and key ESS equipment are domestically made, and mostly local companies conducted the electric, civil, and structural engineering and construction. As such, the project has boosted the domestic renewable energy industry and local economy. KOMIPO will spearhead the effort to increase the quality and quantity of renewable energy projects in and outside Korea and reach the 2050 carbon neutrality target by responding preemptively in the era of a new energy mix.

Promoting Low-carbon·Eco-friendly Businesses Overseas

Status of Overseas Projects

Overseas Projects of KEPCO

We have continuously expanded our overseas projects starting with the coal-fired power plant in Malaya, the Philippines in 1995. As of the end of December 2021, we are engaged in 48 projects in 25 countries across Asia, the Middle East, Central and South America, North America, Africa, and Oceania. The total facility capacity amounts to 28,228MW, comprising of 19,876MW coal-fired power, 5,600MW nuclear power, 2,752MW renewable energy. KEPCO will expand the business area to clean coal, nuclear power, renewable energy, transmission and distribution, and more.



Nuclear Power	Coal-fired Power	Renewable Energy	Grid/Solution	Resource Developmt
1 Country, 1 Project	10 Countries, 14 Projects	6 Country, 8 Projects	15 Country, 24 Projects	1 Country, 1 Projects
Construction 5,600MW	Construction 5,600MW Operation 14,078MW Contract 198MW	Construction 434MW Operation 2,318MW		

Direction of Overseas Projects

Overseas Projects based on ESG Management

To take a leap forward as a world-class energy platform company, we are pursuing overseas projects strategically with the tasks of increasing the sales and net profit from renewable energy and grid projects, phasing out from coal power, and reducing GHG emissions. We plan to gradually transition overseas coal-fired power projects to other energy sources, enter the offshore win d power market, increase grid investment projects, and conduct large-scale CDM projects to reduce carbon emissions. We are improving the profitability of our projects through asset rationalization and refinancing and strengthening our competitiveness by narrowing our focus. Moreover, we are establishing a system to enter the global market with efforts including fostering experts and creating an organization for net-zero projects. We are making continuous effort to guarantee sustainability by adopting ESG performance indices to overseas projects.

Goals and Tasks of Overseas Projects

Slogan	Lead the effort for carbon neutrality! Take a leap forward as a world-class energy platform company!		
Strategic Direction	Energy Transition and Carbon Reduction	Increasing Profitability and Competitiveness in Bidding	Establishing a Global Organization, Manpower and System
Strategic Tasks	① Exit coal projects and enter into the zero-carbon power market ② Expand renewable power generation projects ③ Enter the grid investment business ④ Engage in more new projects and reduce carbon emissions	① Diversity business methods and markets ② Narrow the focus on target markets ③ Enhance the capability to win orders ④ Increase the profitability of businesses operated	① Restructure the organization and secure projects ② Foster global solidarity and cooperation ③ Boost ESG management for overseas projects

Cessation of Overseas Coal-Fired Power Generation Projects

KEPCO decided to phase out from projects to build coal-fired power plants in October 2020 in line with the government's net-zero policy and the global coal-exit movement. We aim to selectively carry out and strategically exit profit-oriented businesses, such as coal-fired power generation, and expand businesses that are suitable for the transition to carbon neutrality, such as LNG CCPP projects, in response to the difficulty regarding the suspension of developing coal-fired power plants. In the long run, we will transition to an eco-friendly overseas project portfolio by focusing on developing renewable power generation projects that have potential for growth(e.g., solar power and wind power). As a result, all overseas coal-fired power generation projects of KEPCO will be ceased after 2050.

Capacity of Coal-Fired Power	
Now	4,370MW coal-fired power
	100%
2030	0MW coal-fired power

Asset Rationalization for Coal-Fired Power Generation Projects

Step 1	**Coal exit and cessation of new gas-fired CCPP projects by 2030** - Make the coal-fired power plants in operation or construction available for sale and complete the sales before the target date. - Apply new technology (e.g., ammonia-hydrogen blends, CCUS, etc.) in case of a delay in sales. - Cease the development of conventional power plants, such as gas CCPP, after 2030, considering the business period.
Step 2	**Replacement of fossil fuel to 100% green energy by 2050** - Cease the operation of fossil fuel power plants (coal, LNG, etc.) and pursue zero-carbon green power generation.

GHG Emissions	
2030	9.2 Million ton/year
2035	8.1 Million ton/year

❶ Overseas Nuclear Power | UAE Nuclear Power Plants No. 1 & 2 in Commercial Operation

We won the order for the UAE nuclear power plant project for building 4 APR 1400 nuclear facilities(5,600 MW) in December 2009. Since then, we have been overseeing the project. The power plant no.1 began its commercial operation in April 2021 as the power plant no.2 did in March 2022. The power plant no.3 was loaded with fuel in June 2022 and connected to the grid in October to supply reliable power to the UAE power grid stably. KEPCO has proven its ability to build and manage nuclear power plants overseas at home and abroad, and the UAE power plant project is recognized as the most successful project in the global nuclear power market. We are making all-out efforts to complete the remaining processes, including the commercial operation of power plants no.3 and 4 through a solid partnership with the UAE.

Barakah nuclear power plants

Inspection on the Barakah Nuclear power plants

Winning Overseas Nuclear Power Projects

We are conducting activities to win nuclear power projects by gathering the strength of the government and the domestic nuclear power industry based on the successful experience of the UAE nuclear power plant project. We are boosting our export competitiveness in the global nuclear market by forming a joint team with the UAE and forging a partnership with the U.S. to jointly enter the nuclear market.

We are making tailored efforts to win orders by utilizing our strengths as an energy company and meeting the interest of clients. We are working with the UAE in the nuclear-hydrogen power project in line with the carbon neutrality policy and discussing with South Africa and the U.K. to find ways to collaborate. We have a long-term relationship with countries that are first adopting nuclear power plants, such as Uzbekistan and Ghana. Based on this, we will contribute to achieving the national policy target of exporting 10 nuclear power plants by 2030.

❷ New Overseas Project | Active Efforts to Enter Foreign Markets

Following the 2015 pilot microgrid(MG) project in Canada as the first Korean company to win a MG project in North America, we are expanding our new energy business with the 2018 MG project on the Galapagos Islands and the 2021 project on Guanaja. We saw the potential for expanding the new energy business(AMI, DAS, GIS, etc.) from developing the distribution new business model in the Dominican Republic in 2017, and we are entering new regions with the 2018 GIS project in 4 cities in Bangladesh, and the 2020 feasibility study for smart energy infrastructure development in Indonesia.

❸ Overseas Renewable Energy | Expansion of Business Areas

We are sparing no effort to gain more footholds in the overseas renewable energy markets, such as California and Mangilao(Solar Power), in addition to the wind power market in China and Jordan. We won the order for the 60MW+32MW/32MWh ESS solar power project in Mangilao, Gwan in 2016 and signed a PPA with the Guam Power Authority in 2018. The construction was completed in June 2022 and the facility is commercially operating. By winning the order for the solar power generation project in Mexico(294MW), which is the company's largest renewable energy project, we entered the renewable energy development industry in Central and South Amercia.

Completion ceremony of Solar Power Plant Mangilao, Guam

❹ Overseas Gas-Fired CCPP | Securing Position in Overseas Markets

KEPCO constructed the UAE Shuweihat S3 power plant(1,600MW, 2014), the Jordan Al Qatrana power plant(373MW, 2011), the Amman IPP3 power plant(573MW, 2014), and the Mexico Norte II gas-fired CCPP(433MW, 2013), and is constructing the Malaysia Pulau Indah gas-fired CCPP(1,200MW). We started the construction for the 198MW Ukudu gas-fired CCPP in cooperation with Korea East-West Power, which we will operate for 25 years. Gas-fired CCPP projects are seen as a bridge between coal-fired power and green energy production following the declaration to stop winning coal-fired power projects from other countries.

Groundbreaking ceremony for the 198MW gas-fired CCPP in Uduku, Guam

❺ Overseas Transmission and Distribution | Securing Position in Overseas Markets

In 2021, KEPCO won the order for building a green energy island in Honduras, improving the power system of Myanmar, and conducting a feasibility test for automating power distribution in the Dominican Republic. As such, we are fostering the consultation business in transmission and distribution. We are securing future growth engines by diversifying businesses and expanding business areas through the AMI pilot project in Sri Lanka, the distribution line project in northern Philippines, the ESS EPC consultation in Guam, and the SCADA/EMS consultation in Uzbekistan. We plan to engage in the follow-up projects and create added value using the transmission/distribution technology and network, and enter overseas markets jointly with other Korean companies through cooperation.

Gradual Expansion Centering around Strategic Locations
·Gain a foothold based on areas where we provide consultation and EPV efforts

Fostering experts of the overseas grid business

→

Cultivating as a profit-creating business
Boost the competitiveness of Team Korea

Linking investment business to renewable energy or new businesses

❻ Overseas Coal-Fired Power | Stable Operation of Large-Scale Projects

We constructed the Vietnam Nghi Son II coal-fired power plant earlier than scheduled in July 2022 on the back of the experience from the fluidized coal-fired power project in the Philippines(200MW) and the heavy oil project in Saudi Arabia(1,204MW). We are currently building the Java 9 & 10 coal-fired power plants in Indonesia(2,000MW) and the Vung Ang 2 coal-fired power plant in Vietnam (1,200MW). We decided not to participate in additional overseas coal-fired power projects in line with the coal-exit movement following the global discussion on carbon neutrality, and we plan to accelerate the effort for coal exit from overseas projects by selling existing coal-fired power plants by 2030.

❼ Increased Profitability in Overseas Projects through Asset Rationalization

We are building an asset management system through cooperation with relevant teams and third-party experts to maximize profit and minimize risks in overseas projects . In case of the solar power project in Japan, we formed a task force in response to changes in the renewable energy policy and the prediction for increased risks incurred by earthquakes and output volatility, established a cooperative system with third-party experts and set a specific process to sell the asset. We built the optimal sales strategy based on the decision made by the task force and successfully disposed our equity for early investment return for the first time in overseas businesses. The profit was invested in follow-up projects, such as the solar panel project in Guam. We established a flexible and active asset management system for overseas projects.

Increase in Profitability through Asset Realization

Solar Power (Chitose, Japan)	Equity disposal for early investment return **Profit of KRW 7.4 Billion**
Project in Shanxi, China	Sold due to environmental issues and safety risks **Profit of KRW 130.3 Billion**
Gas-Fired CCPP (Al Qatrana, Jordan)	Cost cut by facilitating competition for the lifespan extension construction **Cut KRW 29.5 Billion**
Wind Power (China)	Using the financial support system of China provided to renewable energy companies **Profit of KRW 14.5 Billion**
Heavy Oil (Rabigh , SaudiArabia)	Receiving dividend and facility investment by procuring subordinated debt **Profit of KRW 6 Billion**

Business Case **First Overseas Grid Investment Project**

While we are aiming to expand overseas renewable energy and grid projects in line with the net-zero energy transition movement, we successfully won the UAE underwater transmission grid BOT* project worth $3.84 Billion in 2021. As KEPCO's first overseas grid investment project, we are to build a 259km-long underwater transmission grid and operate it for 35 years to supply sustainable power to the crude oil production facility of ADNOC in the UAE. We won the international competitive bid on the back of the experience in constructing the Jeju HVDC underwater transmission grid and stable operation for 30 years since 1991. We expect to see a stable stream of sales and profit for 35 years as the project is a long-term transmission contract with the client. We will continue to win bids for power grid projects in Central and South America, Central Asia, etc. and contribute to the reduction of carbon emissions by providing electricity efficiently.

Contract signing ceremony with the CEOs of the client in the UAE & KEPCO consortium

*BOT : Build, Own, Transfer

Pursuing New Energy Businesses

Status of New Energy Businesses

Promoting Use of Electric Vehicles

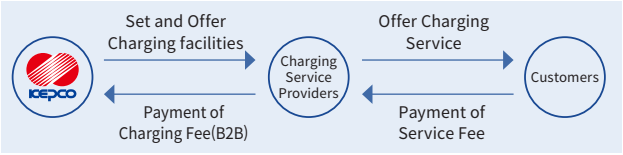
We strive to enhance user convenience and promote the use of electric vehicles by increasing and expanding high-speed charging facilities. We are building high-speed charging facilities and leading the EV market although the private sector is reluctant to jump into the business due to the long payback time. We are starting from urban/residential areas and highway rest areas to make charging as convenient as filling gas. We aim to make the facilities accessible to the vulnerable population, such as people with disabilities, and the marginalized.

We are pushing for B2B projects with private businesses, and we offer our EVC operation system to small charging service providers via cloud to lower the entry barrier due to the initial investment cost and facilitate the business.

Facilitating Charging Business

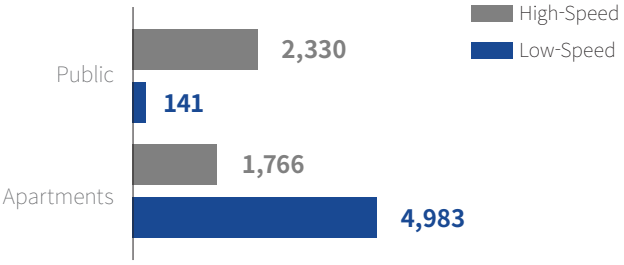
KEPCO have developed and provide various platform services to customers in cooperation with private charging service providers. For example, customers can charge from other businesses with a single card through the charging roaming service. We plan to increase user convenience by introducing integrated services, such as charging appointments, simple payment for parking fees, e-wallets, and breakdown diagnosis. KEPCO strive to cushion the impact of EVs on the power system, to be more prepared for the volatility and output control using EV resources, and to help achieve carbon neutrality as early as possible. KEPCO plan to establish a CMO platform that integrates EV features on a network for smart control, V2G, and customer services to enhance user convenience and stabilize the power system.

KEPCO's Charging Business Model

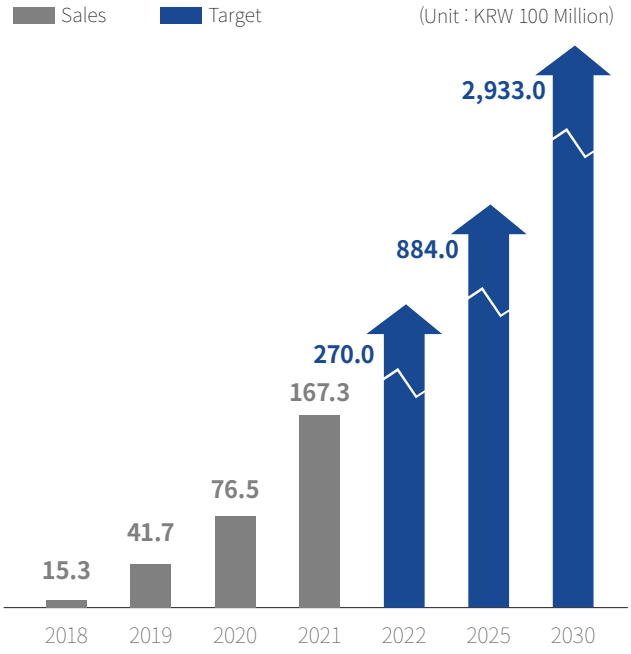


* B2B(Business to Business) : KEPCO builds charging facilities and provides the facilities to charging service providers for a wholesale price, and the charging service providers provide charging services to customers using the charging facilities of KEPCO and themselves.

Status of Charging Facilities As of Dec. 31, 2021 (Unit : Numbers)



Sales and Target Sales of EV Charging Business



Business Case **ChargeLink Alliance 2.0, Consultative Body for EV Charging Business**

In April 2022, KEPCO established the ChargeLink Alliance with 30 charging service providers to provide convenient charging services. With the MOU, we plan to upgrade the charging service to ChargeLink 2.0 and offer new services in cooperation with partner companies. The partner companies will gather their efforts to develop new services, standardize a protocol, increase public charging facilities, and make EVs flexible resources.

MOU for 「ChargeLink Alliance 2.0」

Expansion of Smart City Energy Platform Business

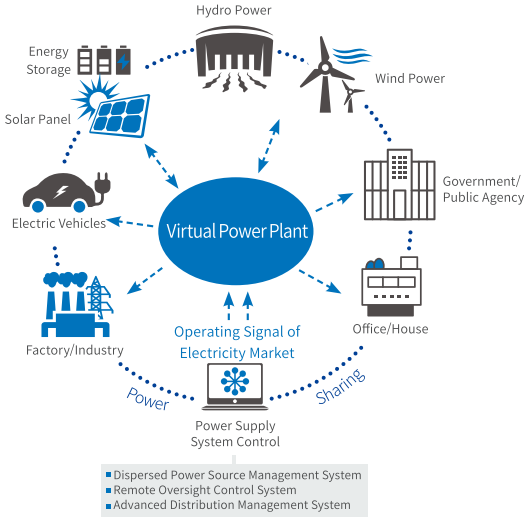
KEPCO's smart city integrated energy platform is a high-efficiency low-consumption platform based on data, networks, and AI that creates an ecosystem in the energy industry. It is aimed at managing energy trading within cities(electricity, water, gas and heating), providing energy-related data, and creating business opportunities using relevant data. We are building the Seoul Integrated Energy Platform in partnership with the city of Seoul to support t he energy plan of Seoul and offer a home energy management service. With the platform, Seoul can set a reduction target and predict the amount of short-term energy use and generation to achieve energy self-sufficiency. It also provides energy(electricity, water, etc.) data per household and a small-scale energy brokerage service, and the data can be used in supporting venture companies' energy projects.

Magok Smart Energy Integrated Platform

In addition, we are demonstrating sharing meter reading infrastructure in the Siheung Smart City National Strategic Project from September 2018 to December 2022. We are also conducting R&D on AI-based energy data analysis and solar power generation analysis using the digital twin(3D virtual city) technology as the lead institute of the Sejong Smart City National Pilot City Energy Platform Project from September 2019 to October 2022. We are striving to offer high-quality energy services to the people of Korea through various BTM(Behind the Meter) services. By pursuing integrated meter readings combining electricity and gas on 5,718 households in Seoul, we are improving the meter reading system to prevent excess investment in meter reading infrastructure and manage the two types of energy organically.

KOMIPO | Expansion of VPP* Business

We are pushing for a virtual power plant business to facilitate power brokerage for system and profit creation of stabilization renewable power generation companies. In the power brokerage business, solar and wind power that is distributed across the country is gathered and brokered, and the renewable energy generation prediction system allows companies to create additional profits. KOMIPO adopted an integrated system for managing dispersed resources to engage in the brokerage business and the prediction system, and is operating the Renewable Moa Center for integrated management of dispersed energy. We became the first power company to gather resources to broker in Jeju, is participating in the prediction system, and has started to make profit from renewable power generation companies. We have gathered 230MW electricity to broker, an d we plan to gather 4GW of small-scale solar power and large-scale wind power by 2025.



Concept of the virtual power plant

* Virtual Power Plant : A virtual power plant for improving the efficiency of power supply by integrating various physical power plants(e.g., wind and solar) and managing small-sized dispersed power sources as a single power plant using ICT

EWP | Campus Energy Efficiency

The Campus Energy Efficiency Project is an energy solution developed by Korea East-West Power. It aims to install smart energy devices at parts of a campus with high power consumption from heating, cooling, lighting, etc. to increase energy efficiency and share profit from lower electricity costs. Between 2020 and July 2022, three campuses have been equipped with an energy-efficiency system. In the energy efficiency project at Dongseo University that took off in July 2022, a solution that allows a cloud platform and machine learning to analyze energy use patterns entered in smart devices and optimize energy management. Through this, Dongseo University can reduce power demand without further investment.

EWP | Groundbreaking ceremony for the campus energy efficiency project at Dongseo University

Strengthening the Base of the Hydrogen Economy

Building Eco-Friendly Hydrogen Society

Transition to Zero-Carbon Sources(Hydrogen & Ammonia) by 2050

KEPCO and the electric power group companies plan to make a large R&D investment into the transition to zero-carbon energy sources using only hydrogen and ammonia by 2050. We will replace coal-fired and gas-fired power by mixing coal with ammonia and natural gas with hydrogen to produce electricity.

As for coal-fired power, we aim to develop a source technology of producing power by mixing 20% ammonia with coal by 2024, build coal-fired power facilities with 20% ammonia by 2025, and complete the demonstration of using 20% ammonia by 2027. We will mix 20% ammonia at commercial-scale power plants by 2030, and gradually increase the proportion of ammonia to 100% by 2050.

As for gas-fired power, we aim to develop a source technology of producing 80MW power with 50% hydrogen by 2023, and we plan to demonstrate 150MW hydrogen-mixed power generation by 2028. We will commercialize the technology to mix hydrogen for 30% or more by 2035, and gradually increase the proportion of hydrogen to 100% at remaining gas-fired CCPPs by 2050 to go zero-carbon.

Mid-Term Roadmap for Transition to Zero-Carbon Sources

	Demonstration	Commercialization	Transition to Zero-Carbon	Expected Demand(10,000 ton)	
				2030	2050
Coal-fired power plants (Coal+Ammonia)	20% Ammonia 24 out of 43 units 2030	Increase in Ammonia 21 out of 21 units 2040	100% Ammonia 7 Zero-Carbon units 2050	Ammonia 1,000 ~ 1,050	Ammonia 1,100 ~ 1,300
Gas-fired power plants (Natural gas+Hydrogen)	30% Hydrogen 9 out of 80 units 2035	Increase in Hydrogen 12 out of 78 units 2040	100% Hydrogen 34 Zero-Carbon units 2050	Hydrogen 20 ~ 30	Hydrogen 1,150 ~ 1,300

Development of Zero-Emission Green Hydrogen Technology

We seek to develop green hydrogen technology throughout its lifespan from production using electricity(Electrolysis) to generation(Fuel cells, Turbines, etc.) to reduce GHG reductions and foster hydrogen economy. Joined with the electric power group companies, we are developing a blue hydrogen production technology that uses the oxidation(Hydrogen) and reduction(CO_2) reaction of metal to convert methane and water vapor into hydrogen while collecting CO_2. We plan to secure a MW-level engineering technology upon the demonstration in 2022. We also aim to develop a P2G(Power to gas) technology that produces and stores green hydrogen that does not emit GHG through electrolysis with renewable energy and demonstrate a 2MW P2G system, which is the largest in Korea. We would like to expand our business into technology verification and operational technology by 2024 by demonstrating the production of green hydrogen using renewable energy.

Business Case **Establishment of Hydrogen Economy Commission**

14 energy-related institutes, including the Ministry of Trade, Industry and Energy, KEPCO and group companies, established the Hydrogen Economy Commission as the governance body to systematically implement the basic plan for hydrogen economy. The Committee will discuss the hydrogen distribution infrastructure, clean hydrogen certification, hydrogen supply and other aspects in line with the adoption of clean hydrogen and its demand. At the first meeting, the participants discussed ways to cooperate and minimize investment costs, such as a joint investment in the construction of an ammonia regasification facility linked to the storage tank of power generation companies and an ammonia storage facility, and renovating existing LNG regasification facilities to use them for liquid hydrogen.

Cooperation in Hydrogen & Ammonia Business and Joint Technology R&D

KEPCO went into partnership with POSCO Holdings and Lotte Chemical for the hydrogen and ammonia business and plans to develop key technology and businesses in the area. We and the partners agreed to cooperate in joint development and investment in green/blue hydrogen production, swapping hydrogen and ammonia for flexible supply, and development of hydrogen and ammonia power generation and CCUS. We aim to enhance business competitiveness with the economy of scale by building and investing in hydrogen production infrastructure and minimize risks due to external conditions by swapping hydrogen and ammonia. We will seek new business opportunities and market entry through the cooperation, and we expect to prevent coal-fired power plants becoming stranded through the joint R&D.

MOU on the cooperation on the hydrogen and ammonia business

KEPCO-Aramco Cooperation on Hydrogen & Ammonia

KEPCO signed an MOU with Aramco to cooperate in the area of hydrogen and ammonia. The parties agreed to conduct a feasibility test on the development of blue hydrogen and blue ammonia to achieve carbon neutrality. The joint R&D on the life cycle of blue hydrogen and blue ammonia from investment to production, storage and sales will create opportunities to discover other areas of cooperation and business models. We also agreed to work on developing new technology for carbon neutrality and energy efficiency.

MOU on the cooperation in the area of hydrogen and ammonia

KOWEPO | Development of Electrolysis System Using Excess Renewable Energy

The electrolysis system converts electricity into hydrogen and hydrogen into electricity using fuel cells when power is needed. To prevent an economic loss from having to stop renewable power plants whenever the amount of renewable energy produced exceeds the capacity of the power system, the electrolysis system has emerged as a crucial response measures. Thus, KOWEPO plans to develop next-generation electrolysis technology by 2022 and commercialize 10MW of power and produce green hydrogen, using excess solar power from Saemangeum by 2026.

Development of green hydrogen electrolysis technology

KOSPO | Demonstration of Green Hydrogen Production Linked to Renewable Energy

KOSPO is conducting a demonstration on the R&D of 10MW green hydrogen production linked to renewable energy. 13 public, private, governmental, and research agencies, including KOSPO, Jeju, KHNP and Korea Gas Technology Corporation, established a consortium to conduct the project, which is the nation's first electrolysis demonstration project that is 10MW large. With this, we plan to build a 12.5MW electrolysis facility in Jeju and produce 1,110 ton of green hydrogen per year once the project ends in 2026. KOSPO seeks to facilitate the domestic development, standardization, and commercialization of green hydrogen production technology through the large-scale demonstration project.

Demonstration of a 12.5MW green hydrogen production facility

Environmental

KEPCO and group companies are taking the lead in creating environmental value by pursuing the eco-friendly electricity industry, developing low-carbon green technology, and enhancing the energy efficiency. In order to efficiently respond to the transition to the global new climate regime and preemptively prepare for the low-carbon economy paradigm in the electricity sector, in cooperation with power groups, we strive to strengthen environmental management, implement the reduction in greenhouse gas emissions, take the lead in greenhouse gas emission reduction R&D, and expand the development of new renewable energy. In accordance with the medium-and long-term low-carbon and eco-friendly management roadmap and implementation system, KEPCO plan to lead the sustainable future.

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- Improvement in Energy Efficiency and Expansion of New Renewable Energy
- Development of the Carbon-neutral core technology

Improved Pollutant Management & Advanced Environmental Management

- Establishment of Environmental Management System
- Resource Procurement and Establishment of Circular Economy

Environmental Protection for Sustainable Future

Lead Carbon Neutrality Action in the Energy Sector

Announcing the Carbon-neutrality Vision, ZERO for Green

For the realization of 2050 carbon neutrality, KEPCO and power companies announced the vision of 'ZERO for Green.' ZERO of 'ZERO for Green' means 'Zero Emission', 'Reliable Energy', or 'On Time', which includes the willingness to lead the bold innovation to achieve the carbon-neutrality throughout the whole value chain in the electricity industry, including energy production(Development), distribution(Electricity grid), and utilization(Consumption efficiency). For the systematic and efficient technology development aimed at achieving such vision, KEPCO established the technology development strategy cooperating with power companies, and is utilizing all of our capabilities and resources and implementing the representative project from each power company for quick technology development.

Roles and Tasks of Electricity Industry in the Carbon-Neutrality Era

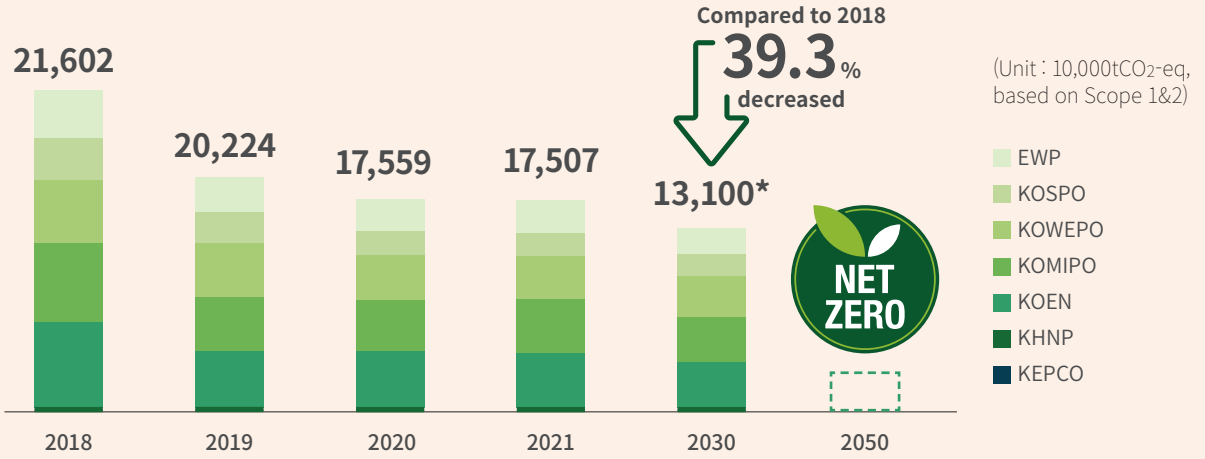
KEPCO and group companies are carrying out tasks to take the lead in carbon neutrality in the energy sector by establishing the 'Roles and tasks of KEPCO to achieve the 2050 carbon-neutrality' and 'Cooperation measures for group companies' Through the integrated cooperation, KEPCO and group companies intend to encourage participation in carbon neutrality throughout the electricity industry by leading the decarbonization in all value chains, including development, transmission, distribution, and sales.

6 Major Roles and Tasks

1. Playing a major role in carbon neutrality through the system construction and operation optimization
2. Leading the development in core technologies of carbon neutrality based on solidarity and cooperation
3. Contributing to electrification by promoting the efficient energy consumption and developing platforms for the new projects
4. Promoting the electricity production and demand distribution
5. Promoting decarbonization in electricity production through the expansion in renewable energy and hydrogen power generation
6. Establishing the foundation for implementing sustainable carbon neutrality

Group companies Roadmap for Reducing Greenhouse Gas Emissions

KEPCO and group companies expect to actively reduce the amount of greenhouse gas emissions, such as by transitioning to zero carbon in existing power generation infrastructures, increasing the power generation of renewable energy, and stopping the operation of coal power plants. Moreover, KEPCO strive to discover and implement the diverse reduction projects externally utilizing the greenhouse gas reduction technology developed by itself to additionally reduce the greenhouse gas emissions.



* The roadmap will be edited and complemented in accordance with the government's energy policy such as the 10th Basic Plan for Power Supply and Demand in the future

Strategy for Carbon Neutrality

Zero Emission

Bold transition to power generation free of carbon emissions such as renewable and hydrogen

Reliable Energy

Stable supply of renewable energy through the preemptive complementation of the electricity grid and optimized operation

On Time

Timely procurement of the core technology for carbon neutrality by expanding R&D investment

Technology Development Strategy for Carbon Neutrality

Energy efficiency

- High-efficient low-loss technology such as HVDC and superconductivity
- Provision of customized xEMS solution

Renewable energy expansion

- Expansion of wind power plants and reduction in costs of construction and operation
- Expansion of green hydrogen utilizing the surplus energy of renewable energy

Fuel transition

- Generation of mixed hydrogen and ammonia and total loss by fire
- Commercialization of CO2 capture and utilization technology

Intelligent power grid

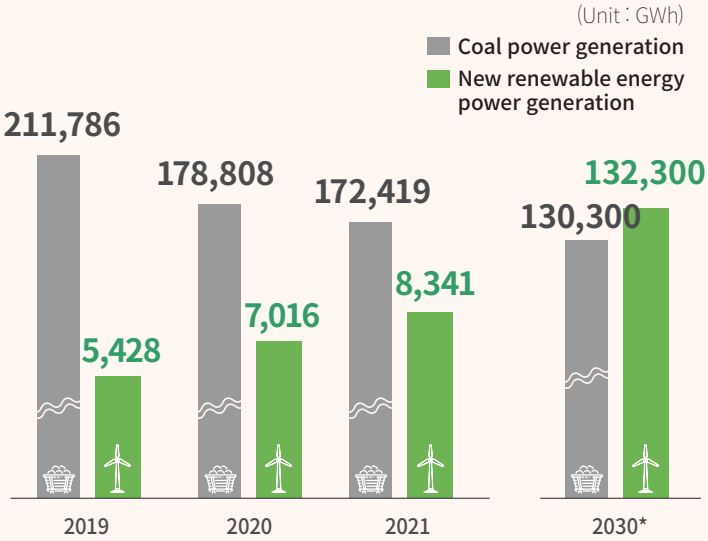
- Expansion of renewable energy and development of optimized ESS
- Digital transition of transmission and distribution management system

Lead Carbon Neutrality Action in the Energy Sector

Converting from Carbon-focused Power Generation into New Renewable Power Generation

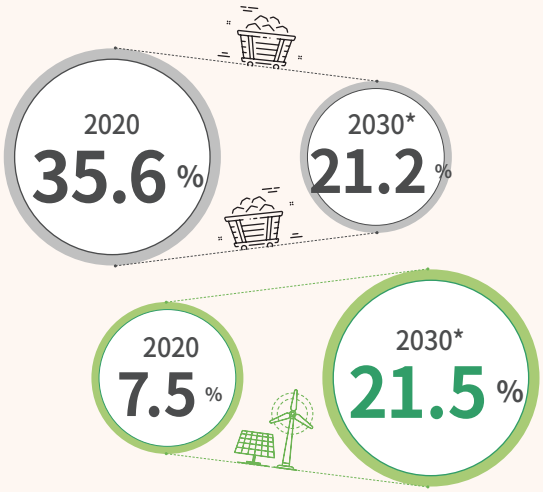
KEPCO and group companies intend to expand the proportion of new renewable power generation to 21.5%(based on rated capacity) in line with the great energy transition to achieve carbon neutrality, while also reducing the proportion of coal power generation by phasing out the existing old coal power plants and switching to LNG power generation facilities. We are increasing the investment for the joint connection facility based on predicted generation amount in connection with large-scale new renewable energy generation facilities and electricity system, while also expanding and applying the facilities such as ESS(Energy Storage System) to secure the reliability of electricity system and ease the restrictions on power generation, thereby striving to stably supply the new renewable energy.

Group companies Coal and New Renewable Energy Generation Trends

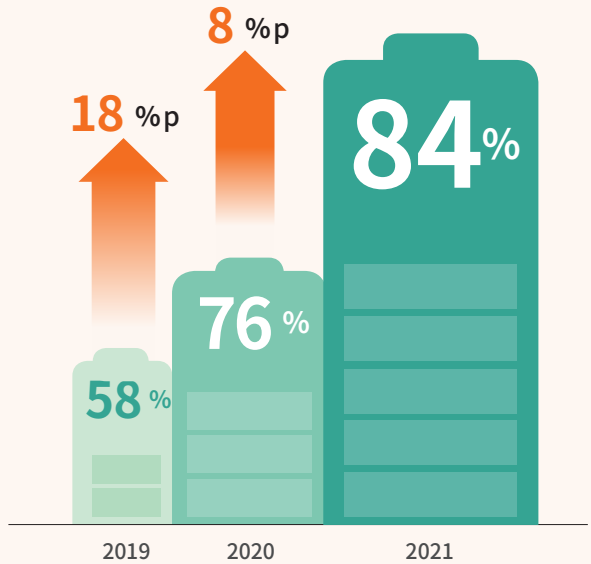


* This figure is based on the working-level proposal of 10th Basic Plan for Power Supply and Demand and will be established again reflecting the confirmed proposal of the same plan

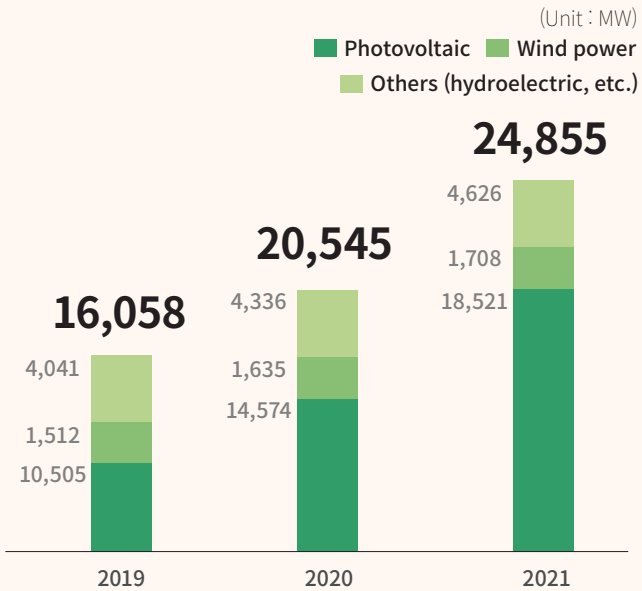
Power Generation Proportion Target



Connection Rate of Domestic New Renewable Energy



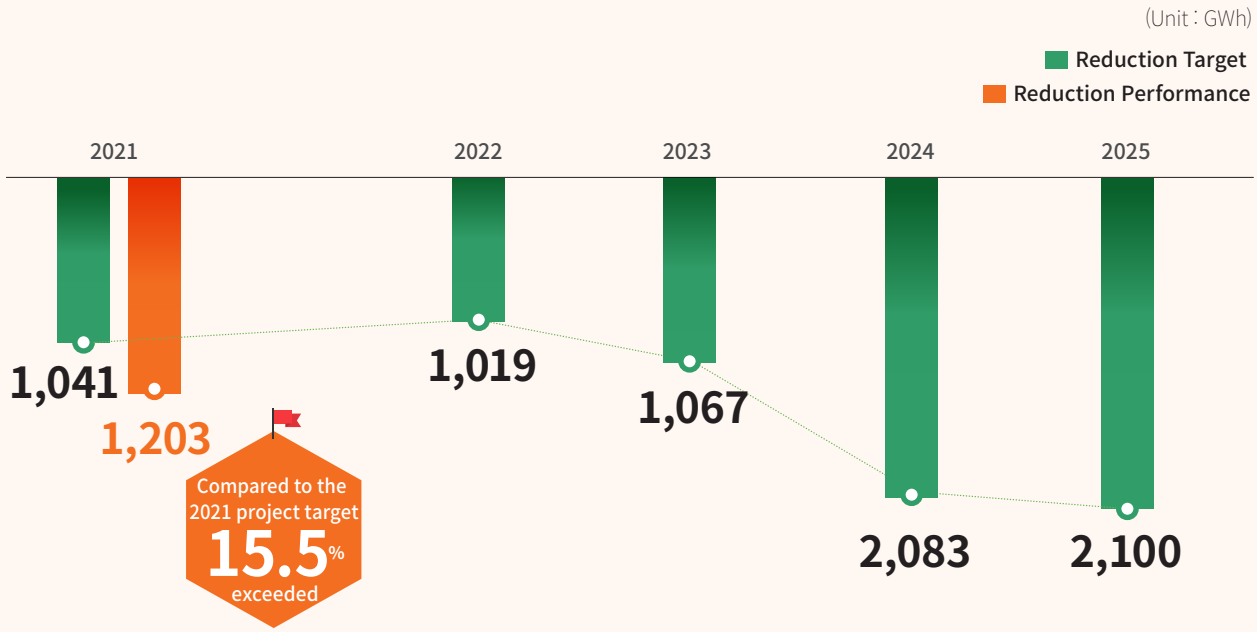
Current Status of Commercial Operation of Domestic New Renewable Energy



Promoting the Energy Efficiency and Distribution of New Renewable Energy

KEPCO and group companies are currently expanding the new renewable energy generation to encourage the industry sector and electricity consumers to implement RE100, while also expanding and operating the green premium and third-party or direct PPA intermediary. In particular, we invest the finance secured from the green premium into the power generation of new renewable energy to create the virtual circle. In addition to promoting the distribution of new renewable energy, we are consistently implementing the energy efficiency projects such as the distribution of energy high efficiency devices, energy inspection, and consulting to form public sympathy regarding energy reduction and support the reduction of energy costs.

KEPCO Energy Efficiency Project Target and Performance



* Target of energy efficiency project : 0.2% (~'23), 0.4%('24~'25) of the previous year's sales applieds

Performance of Operating Green Premium System

RE 100

As of late 2021

Participated Companies **60** Supplied Electricity **1,441** GWh

* It accounts for 98% of RE100 implementation performance

As of the first half of 2022

Participated Companies **77** Supplied Electricity **4,670** GWh

Response to Climate Change based on Decarbonization

Building the Governance in Response to Climate Change

Role of BOD

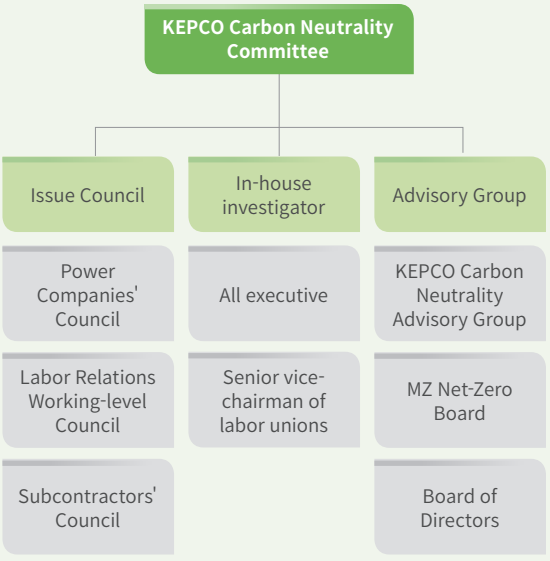
By operating the ESG Committee deliberating the ESG strategy targets, including climate change response, under the BOD, KEPCO is implementing stricter ESG management and monitoring . The ESG Committee consisting of the chairman and 3 outside directors are operated under the principle of holding a regular meeting quarterly, discussing the ESG-related management issues by convening the extraordinary meeting when necessary. In 20 21, a total of 4 meetings were held and the committee built the foundation for climate change response by joining the UN Global Compact and proposing the review of the publication of 2021 sustainable management report.

Role of Executives

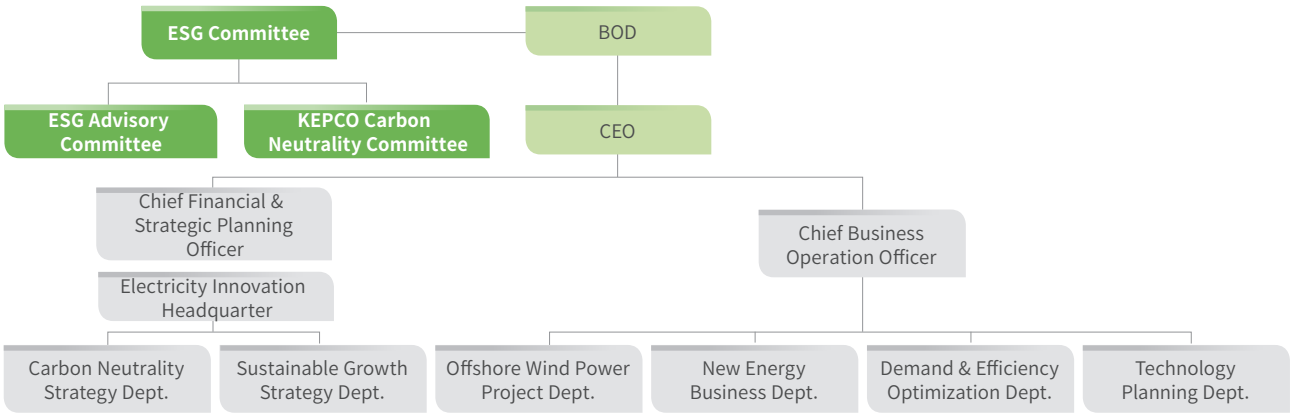
KEPCO's Chief Financial & Strategic Planning Officer is playing a role in managing and monitoring the business risks and opportunity factors caused by climate change , while regularly monitoring the greenhouse gas emission trading schemes and implementation status of investment projects required for greenhouse gas reduction, reporting important matters to the BOD. Electricity Innovation Headquarter under the Chief Financial & Strategic Planning Officer came up with the detailed implementation plan such as the carbon-neutrality strategy, generalizing the climate change response of power companies by strengthening the cooperation among group companies including power subsidiaries. On the other hand, we established the Offshore Wind Power Project Dept under the Chief Business Operation Officer in charge of development of offshore wind power business, New Energy Business Dept generalizing the new energy industry, including EV charging infrastructures and smart cities, Demand & Efficiency Optimization Dept establishing the demand management plan as well as the energy efficiency project , and Technology Planning Dept initiating the development of core technologies for carbon neutrality.

KEPCO Carbon Neutrality Committee

In order to find the optimized route for carbon neutrality in cooperation and solidarity with internal and external experts and stakeholders, KEPCO launched the 'KEPCO Carbon Neutrality Committee', the highest deliberation organization. KEPCO Carbon Neutrality Committee, chaired by CEO of KEPCO, consisting of executives of KEPCO, representatives of labor unions, MZ generation employees, the general manager of power companies, outside experts, as well as the issue council for efficient discussion regarding carbon neutrality and an advisory group consisting of internal and external experts. Moreover, we will deliberate the implementation tasks for each working group(W/K) and carbon neutrality strategy, while playing a major role by sharing the failure factors and performance throughout the process of tasks.



KEPCO's Climate Change Response Organization Chart



Establishing the Strategy in Response to Climate Change

Roles and Tasks of the Electricity Industry in the Carbon Neutrality Era

By coming up with the 'KEPCO's roles, tasks and cooperation plan for power companies to achieve '2050 carbon neutrality', KEPCO and group companies are exploring the 6 major roles and tasks, such as by constructing the electricity system, optimizing the operation, and leading the carbon neutrality R&D. We will strive to expand renewable energy and new power source based on zero carbon fuel, preemptively complement the electricity grid throughout the electricity supply system, while discovering major tasks regarding carbon neutrality and carrying out joint R&D in cooperation with power companies and the electricity industry. Moreover, the company plans to encourage subcontractors and manufacturers of electric equipment to engage in establishing the eco-friendly infrastructures, producing low-carbon products, and recycling wasted resources for carbon neutrality by frequently communicating with them, while also exploring ways to support the risks of relevant industries' slump and stranded assets that may occur during the transition of the power generation mix.

6 Major Roles and Tasks of the Electricity Industry

Playing a major role in carbon neutrality through the system construction and operation optimization

- Establishing the timely connection foundation for renewable Energy
  - Preemptive system complementation by predicting the scale of renewable energy development, etc.
- Establishing the measures to strengthen the system stability
  - Establishment of integrated control system(prediction, monitoring, control) for renewable energy, etc.
- Taking the lead in innovating the Basic Plan for Power Supply and Demand paradigm electricity grid, etc.
  - Establishment of the Basic Plan for Power Supply and Demand led by the electricity grid, etc.

Leading the development in core technologies of carbon neutrality based on solidarity and cooperation

- Initiating the development of the core technology
  - Efficient energy use, expansion of renewable energy, transition to zero carbon fuel, intelligent electricity grid, etc.
- Innovating the R&D process
  - Expansion of open innovation and challenging task selection, etc.

Contributing to electrification by promoting the efficient energy consumption and developing platforms for new projects

- Initiating the strategic demand reduction
  - Establishment of reasonable electric bill system, expansion of demand reduction programs, etc.
- Taking the lead in expanding the new BTM industry
  - Establishment of new industry infrastructures such as EV car, etc.
- Coming up with the measure to implement the efficient electrification
  - Support for implementing the optimized electrification by the sector, etc.
- Encouraging the electricity peak transfer
  - Levelizing of electricity peak through the pricing signal

Promoting the electricity production and demand diversification

- Taking the lead in distributing the production and Demand of electricity
  - Provision of incentives to distribute the supply region, etc.
- Advancing the system to accept and operate the distributed energy
  - Innovation of infrastructures of distribution network and governance reorganization, etc.

Promoting decarbonization in electricity production through the expansion in renewable energy and hydrogen power generation

- Taking the lead in expanding renewable energy
  - Large-scale project development such as offshore wind farms and floating solar panels , etc.
- Taking the lead in transitioning into zero carbon gas turbines
  - Establishment of the system to produce, transport, and utilize the green hydrogen, etc.
- Promoting the fair coal reduction and LNG transition
  - Establishment of the compensation plan for stranded infrastructures and support measures for manpower transition,etc.
- Improving market system reasonably
  - Design of eco-friendly future-oriented electricity market of renewable energy , etc.

Establishing the foundation for implementing sustainable carbon neutrality

- Establishment of the cost sharing system to implement the reasonable carbon neutrality
- Establishment of energy security in the electricity business
- Expansion of overseas carbon neutrality business
- Domestic and overseas cooperative initiative
- Innovation in software and hardware

Improvement in Energy Efficiency and Expansion of New Renewable Energy

Support for improving energy efficiency

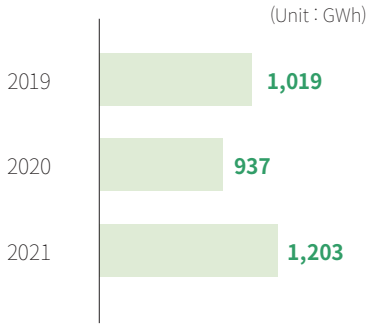
Activities to Improve Energy Efficiency Based on EERS

KEPCO recognizes the need to improve the efficiency throughout the electricity demand market and is initiating various projects to improve energy efficiency centered around the EERS(Energy Efficiency Resource Standard) system. EERS system enables energy providers to establish the energy reduction target in line with the energy sales and thus achieve the target, which is one of the demand-side key measures for carbon neutrality and reasonable energy use, obligating efficiency improvement. In order to strategically implement energy efficiency activities, KEPCO has diversified the implementation measures to achieve the EERS target, while building the system to examine the evaluation in terms of energy reduction.

Key Measures to Improvement EERS

High efficiency device distribution project	Support for installation of energy high efficiency devices and systems Ex. 20 projects including LED, regenerative brake, premium motor
ESCO project	ESCO (Energy Service Company) recall the investment after investing in facilities which reduced the energy as the energy saving cost Ex. Energy inspection and efficiency improvement project for the root company, etc.
EMS project	Support for installation of EMS (Energy Management System) for factories, building, and schools Ex. Smart green industrial complexes, EMS-linked smart light project, etc.

Performance of the Energy Efficiency Improvement Project



Improving the Awareness toward Energy Efficiency

KEPCO is expanding and implementing the project to improve awareness toward energy efficiency by establishing a cooperative network with relevant organizations and diversifying the project to change the consumer behavior attended by Korean people. We are providing the fund and prime rate according to the energy saving performance combined with electricity big data and financial incentives, while revitalizing the energy cashback project that provides incentives depending on energy saving. Moreover, in connection with local governments, KEPCO is initiating projects to provide funds depending on the result of energy inspection and saving amount.

Activities to Improve Awareness towards Energy Efficiency Utilizing Incentives and Performance

(Ministry of Trade, Industry and Energy) Energy cashback program	Encourage energy saving and provide cashback by comparing the apartment complex and units	13GWh will be saved(provisional)
(Hana Bank) Energy Challenge Program	Provide energy saving performance-linked fund and prime rate	11GWh will be saved (provisional)
(Local government) Energy Saving Network	Initiate the energy home doctor project in Busan and green APT construction project in Gwangju	1GWh will be saved(provisional)

Promoting the Distribution of Regions in Electricity Demand

By distributing the electricity demand present in the metropolitan areas, KEPCO aims to prevent inefficient infrastructure investment and optimize the electricity consumption, thereby encouraging the diversification of the facilities which consume a lot of energy. To this end, KEPCO promotes the locational demand diversification by enabling consumers using a lot of energy to make a reasonable choice through the preemptive and strategic demand diversification policy, not just accepting and managing the electricity application as we did before. In short term, we plan to provide comprehensive incentive packages, such as by expanding the voltage options and reducing the cost for facilities especially for newly established data centers located in non-metropolitan areas. In contrast, in long term, we plan to promote the construction of the integrated complex of local data centers cooperating with the government. We will ensure the reduction in social cost caused by concentration in metropolitan areas and establish electricity grid harmonized with new renewable energy.

Making a Foundation to Utilize New Renewable Energy

Supporting the Promotion of Domestic RE100

RE100(Renewable Electricity 100%) is a voluntary campaign that encourages companies to consume 100% renewable energy in electricity consumption by 2050. In 2020, 274 global companies and 6 domestic companies engaged in this campaign and it has increased to 341 glob al companies and 14 domestic companies. As more and more insiders are interested in RE100, KEPCO is operating the 'third-party PPA intermediary' and 'green premium' to encourage the domestic industry to implement the RE100 successfully. KEPCO carried out bidding twice after the adoption of green premium and then came up with the systematic foundation to implement the third-party PPA intermediary. Going forward, KEPCO expects to encourage companies to participate in RE100 and contribute to achieving 2050 carbon neutrality by increasing the measures to implement RE100 through our dedicated electricity trade platform.

Introducing and Operating the Green Premium Successfully

KEPCO successfully adopted the green premium that enables consumers to additionally pay premium as well as the existing electricity bill and purchase electricity from new renewable energy. The bidding of green premium is carried out in the first half and second half of every year, while KEPCO is revitalizing the promotion utilizing press releases and online briefing sessions to improve awareness toward green premium. KEPCO made contracts with a scale of 1,441 GWh among 2021 bidding supply, which accounts for 98% of the performance of RE100. Moreover, utilizing the profits regarding RE100, and investing in renewable energy R&D.

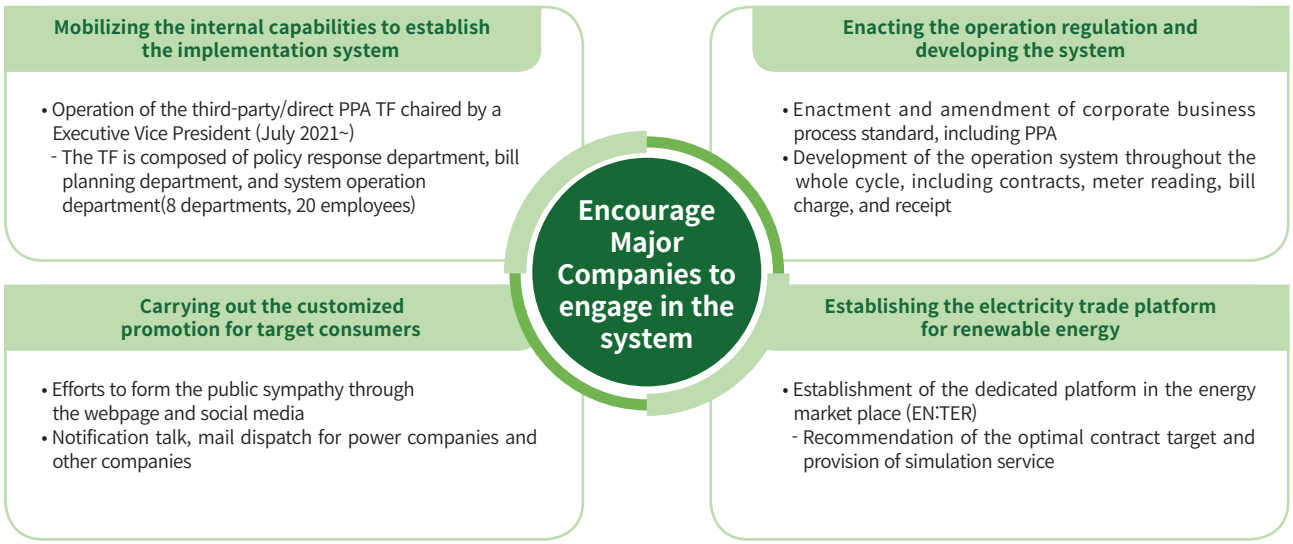
Establishing the third-party PPA Foundation and Engaging in PPA Design Directly

KEPCO amended the business process standard organizing the TF with a view to revitalizing the third-party PPA intermediary, while renovating the operation system throughout the whole purchase cycle, including contracts, meter reading, bill charges, and receipts. Moreover, KEPCO facilitated the efficient electricity trade in renewable energy by recommending the optimal contract target and providing bill simulation service in case of third-party PPA through the development of an electricity trade system utilizing the energy market place (EN:TER) platform. In addition, KEPCO actively participated in the stage of designing the PPA system to encourage the adoption of the government's direct PPA system, while also working hard to build relevant infrastructure s an d improve the system to operate the system smoothly. Going forward, in order to revitalize t he domestic RE100, the company aims to create the practical performance, encourage the industry sector to engage in the system b y actively participating in the process of establishing an d improving the system led by the governmental agency.

* Third-party PPA : Third-party PPA is the system that enables users to purchase electricity produced by renewable energy providers through the KEPCO's PPA intermediary

* Direct PPA : Direct PPA enables users to directly purchase the electricity by making a contract between renewable energy providers and electricity users

Establishing the reasonable system and infrastructures to encourage companies to engage in the third-party PPA intermediary



Development of the Carbon-neutral core technology

Roadmap for Securing Core Technology for Carbon Neutrality

Strategy for Carbon-neutrality Technology Innovation

KEPCO plans to secure the core technology for carbon neutrality from an early stage, such as by making efficient energy that contributes to the reduction of greenhouse gas emissions, developing the renewable energy generation and hydrogen and ammonia generation, expanding the R&D investment for electricity grid technology. To this end, we aim to expand the R&D investment to 1 trillion won annually, which is the twice higher than the current amount, while promoting the technology innovation throughout the electricity industry by revitalizing the joint research and demonstration between the government, private sector, and academia.

KEPCO's Measure to Promote Technology Development for Carbon Neutrality

Classification	Content	Expected Effects
Energy Efficiency	• (Distributed electricity supply chain) Monitoring and control of the broad area system, electricity grid by the region, AC/DC composite network • (High efficient transmission system) HVDC, MV·LVDC, superconductivity system • (Building efficiency) xEMS platform, demand data inspection and prediction • (Industry efficiency) Integrated system for energy saving, electrification of working devices • (Transport efficiency) Technology to advance EV charging stations and P2G technology	Improve the efficiency of electricity supply and production and encourage the efficient electrification
Expansion of renewable energy	• (Offshore wind power) Design to increase generation volume, low cost and large-scale complex technology • (Photovoltaic power) Technology to manufacture high efficient elements of solar cell • (Production/storage/utilization of hydrogen) Water electrolysis production, mass storage, and fuel cell technology	Decarbonize the electricity generation
Fuel Transition	• (Hydrogen power generation) Technology to improve dual fuel rate of hydrogen and dual fuel and firing technology • (Ammonia power generation) Ammonia dual fuel and firing technology utilizing existing coal power plants • (CCUS) CO2 capture, transition, and utilization technology	Minimize the stranded assets and replace the fossil fuel-based generators
Establishment of Intelligent Grid	• (Increasing penetration of renewable energy) Monitoring, prediction, and control of renewable energy, and technology to inertia power system • (Large capacity ESS) Adjustment of frequency, ESS to ease renewable energy output variation	Establish the distributed two-way electricity system

Carbon Neutrality Technology Development Project

Implementing Projects aimed for Group Companies

KEPCO and group companies will select the specialized projects, divide roles, and strengthen the cooperation for efficient and quick carbon-neutral technology and commercialization.

Classification		Technology development	Content
Joint project		· Development of large-scale offshore wind power plants	- Sinan 1.5GW, Buan and Gochang 1.2GW, Ulsan 200MW
		· Hydrogen and ammonia power generation	- CO_2 49 million tons reduction in transition sector in 2050
		· Establishment of economical and stable digital power generation system	- Coal and ammonia dual fuel digital development in 2025
Specialized Projects	KEPCO	· Stabilization of electricity system in response to variation of renewable energy	- ESS installation for stabilizing electricity system including frequency
	KHNP	· Development of technology to commercialize innovative SMR	- Extraordinary improvement of stability, flexibility
	KOEN	· Development of CO2 capture and utilization and its commercialization	- 20,000 tons of CO_2 reduction every year from 2025
	KOMIPO	· Establishment of hydrogen value chain	- Production of 250,000 tons of blue hydrogen every year (2026~) - Fuel cell generation (40MW)
	KOWEPO	· Demonstration of hydrogen to gas turbine	- 800,000 tons of CO_2 reduction thanks to LNG complex power generation with hydrogen dual fuel (2026~)
	KOSPO	· Construction of eco-friendly convergence energy campus	- Converting the coal power plant into eco-friendly convergence energy campus, 20 million tons of CO_2 reduction (2030~)
	EWP	· LNG complex capture technology and its commercialization	- 500,000 tons of CO_2 reduction every year with gas complex emission (2026~)

Securing the Core Technology for Carbon Neutrality in Power Generation Sector

Establishing the Innovation Roadmap for Joint Technology in the Power Generation Sector

In order to preemptively secure the technology in terms of carbon neutrality, KEPCO and group companies established the 'innovation roadmap for joint technology in the power generation sector'. Through the roadmap, KEPCO and 5 group companies selected the 14 core technologies in four areas, including new power generation, new renewable energy, climate change, and smart operation, while also working hard to spread and distribute the core technology and develop and demonstrate the technology through cooperation.

Roadmap Implementation Plan

❶ **Securing consistency** Connecting with the governmental 2050 carbon neutrality scenario and roadmap of Korea Institute of Energy Technology Evaluation and Planning	Establish the response strategy by the scenario of power generation sector and reflect the roadmap of Energy Technology Evaluation and Planning
❷ **Addressing the joint issues** Strengthening the connectivity with R&D roadmap to implement KEPCO and group companies' projects	Establish the strategy and implementation plans for developing core technology necessary for major projects
❸ **Prioritization** Concentration on certain projects by integrating similar technologies and holding less important technology projects	Establish the project strategy to efficiently use the restricted manpower and finance
❹ **Addressing the joint issues** Selecting the projects to be concentrated on by KEPCO and group companies' and defining major roles	Secure the core technology and future-oriented growth engine by carrying out unique large-scale projects by the company

Roadmap Composition Technology

New Power Generation

Technology Name	Major Achievement
Hydrogen and ammonia power generation	→ Hydrogen and ammonia dual fuel and firing system
Biomass and waste power generation	→ Gasification and steam supply power generation
Fuel cell power generation	→ Fuel cell infrastructure and operation system
High efficiency clean power generation	→ Gasification and supercritical CO_2 power generation

Smart Operation

Technology Name	Major Achievement
Digital transition	→ Ammonia dual fuel digital twin system, intelligence application
Safety and security	→ Standard and safety management platform for evaluating business risks
Integrated operation of infrastructures throughout the whole cycle	→ Prediction system for infrastructure inspection, sunk cost evaluation system
Gas complex power generation	→ Optimal operation solution, performance demonstration infrastructures

Climate Environment

Technology Name	Major Achievement
CCUS demonstration and commercialization	→ Commercialization of CO_2 capture and utilization
Hydrogen production and storage	→ Gasification and steam supply and power generation
Fine dust reduction	→ Fine dust reduction and recycling

New Renewable Energy

Technology Name	Major Achievement
Wind power generation	→ Next-generation wind power and O&M system
Photovoltaic power generation	→ Next-generation photovoltaic power generation and operation technology
Large capacity long period ESS	→ Electric, chemical, thermal, and mechanical energy storage technology

Making Efforts to Reduce Greenhouse Gas Emissions

KEPCO and group companies announced carbon neutrality vision, ZERO for Green, showing the willingness to achieve the carbon neutrality by 2050. To this end, we plan to actively reduce the greenhouse gas emissions caused by power generation, such as by implementing zero carbon transition in existing power generation infrastructures, including ammonia dual fuel and hydrogen dual fuel, increasing the proportion of renewable energy power generation, and stopping the coal power plants. In addition to this, KEPCO is discovering and implementing external reduction projects in cooperation with diverse stakeholders utilizing our own greenhouse gas reduction technologies to additionally cut down greenhouse gas emissions.

Moreover, in order to establish the climate change response strategy in line with the global standard, KEPCO is currently carrying out a research project to establish a carbon neutrality roadmap applying Scope 3 emission. Through this research project, KEPCO plans to develop the measurement methodology and classification system to measure greenhouse gas emissions, including Scope 1/2/3, while also establishing the power companies' greenhouse gas reduction strategy including Scope 3. Going forward, KEPCO will establish and implement the phased greenhouse gas reduction target and implementation strategy in a timely manner in line with the government's Nationally Determined Contribution (NDC) and the Basic Plan for Power Supply and Demand.

Roadmap for Reducing Coal Power Generation

Classification	'20~'21	~'25	~'30	~'34
Reduction performance (accumulated)	6 Plants 2,620MW	12 Plants 5,740MW	24 Plants 8,860MW	30 Plants 12,460MW
Detailed content by period	Boryeong #1, 2, etc. (2,620MW)	Samcheonpo #3, 4, etc. (3,120MW) * LNG fuel transition	Hadong #1,2, etc. (3,120MW) * LNG fuel transition	400, Hadong #5,6 etc. (3,600MW) * LNG fuel transition

* The roadmap is made in line with the 9th Basic Plan for Power Supply and Demand and it will be edited and complemented according to the 10th Basic Plan for Power Supply and Demand

Greenhouse Gas Emissions (Scope 1,2)

By breaking the greenhouse gas emission phases into Scope 1,2,3, KEPCO is meticulously identifying the greenhouse gas emissions throughout the business activities and systematically managing the greenhouse gas emissions occurred directly and indirectly. KECO will consistently reduce the emissions by collecting and refining SF6 gas, the largest contributor, and adopting the infrastructures utilizing eco-friendly gas.

Classification		Emissions by year (Unit : Approximately tCO_2-eq)		
		2019	2020	2021
Scope 1 (Direct Emission)	KEPCO	91	84	79
	KHNP	8	7	7
	KOEN	5,334	4,244	3,714
	KOMIPO	3,417	3,466	3,298
	KOWEPO	3,452	3,025	3,320
	KOSPO	3,658	2,889	3,437
	EWP	3,894	3,482	3,271
Sum of Scope 1		19,853	17,197	17,126
Scope 2 (Indirect Emission)	KEPCO	19	20	21
	KHNP	303	284	304
	KOEN	6	8	9
	KOMIPO	10	12	11
	KOWEPO	16	17	16
	KOSPO	8	12	10
	EWP	7	9	10
Sum of Scope 2		371	362	381
Sum of Scope 1 & 2		20,224	17,559	17,507

Greenhouse Gas Emissions (Scope 3)

Classification			Emissions by year (Unit : 10,000tCO2-eq)		
			2019	2020	2021
Scope 3 (Other Indirect Emission)	KEPCO	Total sum	26,509	22,862	22,000
		Power generation fuel production	4,544	3,932	0.2315
		Capital goods	0.1154	0.2312	0.1608
		Burning electricity-producing fuel	21,963	18,929	21,999
		Upstream transport and logistics	0.0002	0.0006	0.0007
		Waste processing	0.0765	0.1358	0.1718
		Domestic and overseas business trip of employees	0.0910	0.4944	0.4543
		Commute of employees	0.0483	0.0323	0.0405
	KHNP		Not Calculated	Not Calculated	Not Calculated
	KOEN		Not Calculated	Not Calculated	1,241
	KOMIPO		Not Calculated	Not Calculated	Not Calculated
	KOWEPO		Not Calculated	Not Calculated	667
	KOSPO		Not Calculated	709	750
	EWP		8,295	1,007	994

* Scope 3 data of power companies includes the indirect emissions from power generation fuel production, capital goods, burning electricity-producing fuel, upstream transport and logistics, waste processing, Domestic and overseas business trip of employees, and commute of employees.

Electricity Generation Volume and Electricity Purchase Volume

Electricity Generation Volume

(Unit : GWh)

Year	Water Power	Steam Power	Combined Cycle Power	Nuclear Power	New Renewable Power [1]	Group·Internal Combustion Power [2]	Sum
2019	4,477	213,628	36,670	145,910	5,428	2,958	409,071
2020	4,502	180,899	38,033	160,184	7,016	3,888	394,522
2021	4,762	175,090	49,982	158,015	8,341	4,183	400,373

1) New renewable energy: The new renewable energy does not include general water power and small hydropower (Classified as water power separately)
2) Others: waste energy (This energy is separately classified as others from renewable energy from January 2020 due to the revision of renewable energy law)

Electricity Purchase Volume by Power Source

(Unit : GWh)

Year	Nuclear Power	Coal Power	LNG, Combined	New Renewable Power	Other Power Source and Adjustment
2019	138,607	217,342	141,933	32,803	9,834
2020	152,312	186,922	143,732	33,933	12,708
2021	150,179	188,599	166,004	41,059	8,685

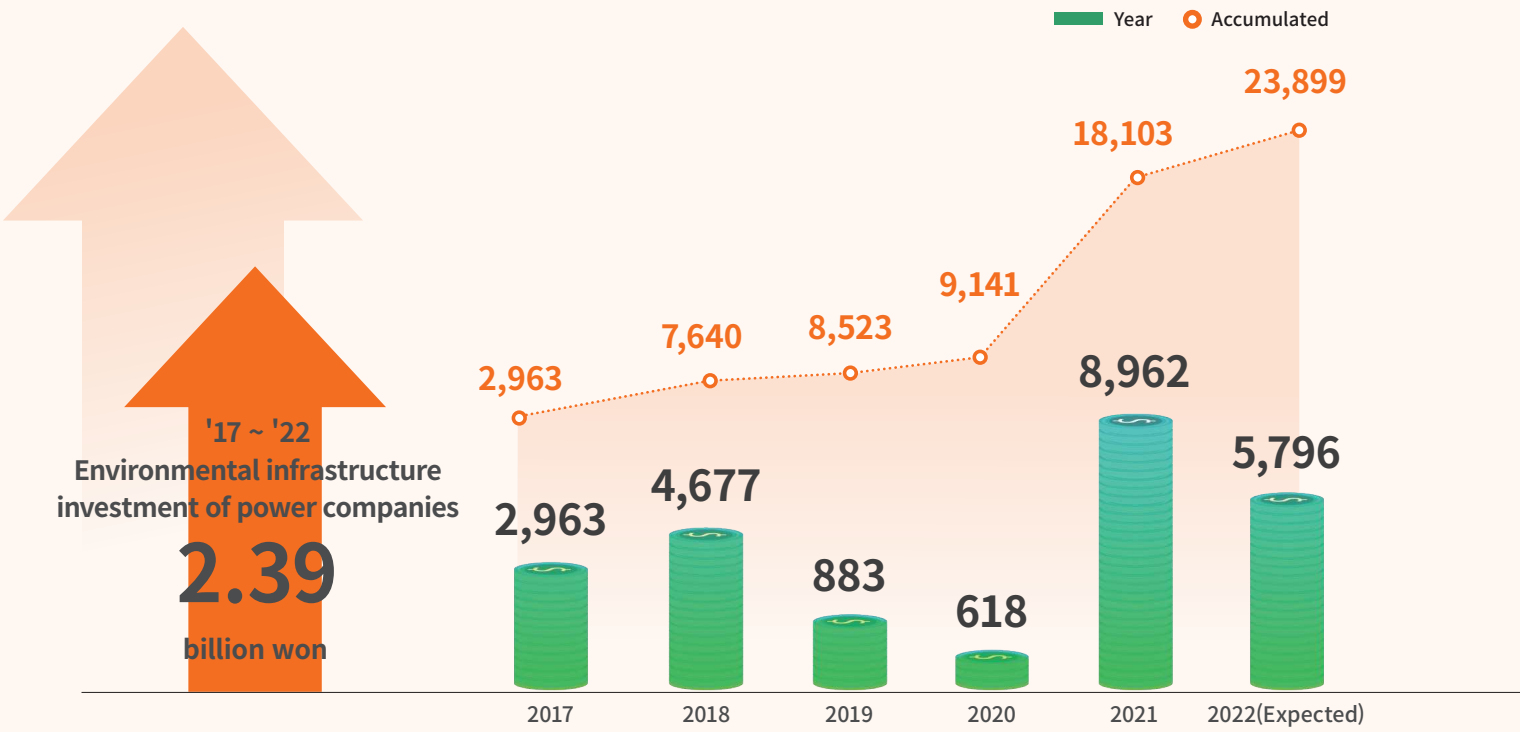
Improved Pollutant Management & Advanced Environmental Management

Expanding Eco-friendly Infrastructure Investment

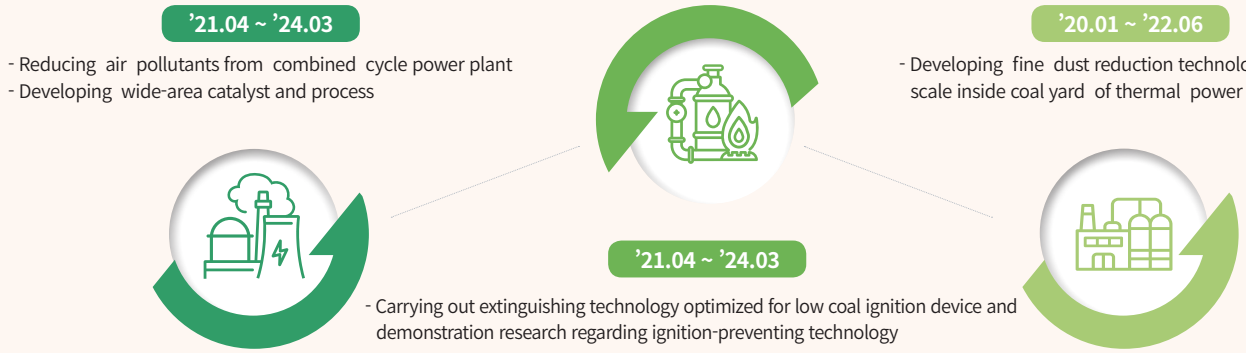
As air pollution issue is becoming more important in the electricity industry, KEPCO and group companies are currently establishing various measures to reduce air pollutants in consideration with the scale of environmental infrastructure investment, financing, and energy supply for environment protection in the future. KEPCO and group companies are increasing environmental infrastructure investment to meet the needs of people regarding a clean environment and supply eco-friendly electricity stably, while striving to carry out research and technology development regarding CO_2 reduction, fine dust reduction, SOx and NOx reduction for the realization of the 2030 Nationally Determined Contribution (NDC).

Group companies Investment Amount for Environmental Infrastructure

(Unit : Billion Won)



Group companies Major Tasks regarding Joint R&D to Reduce Air Pollutants



34 Billion Won

30 Billion Won

24 Billion Won

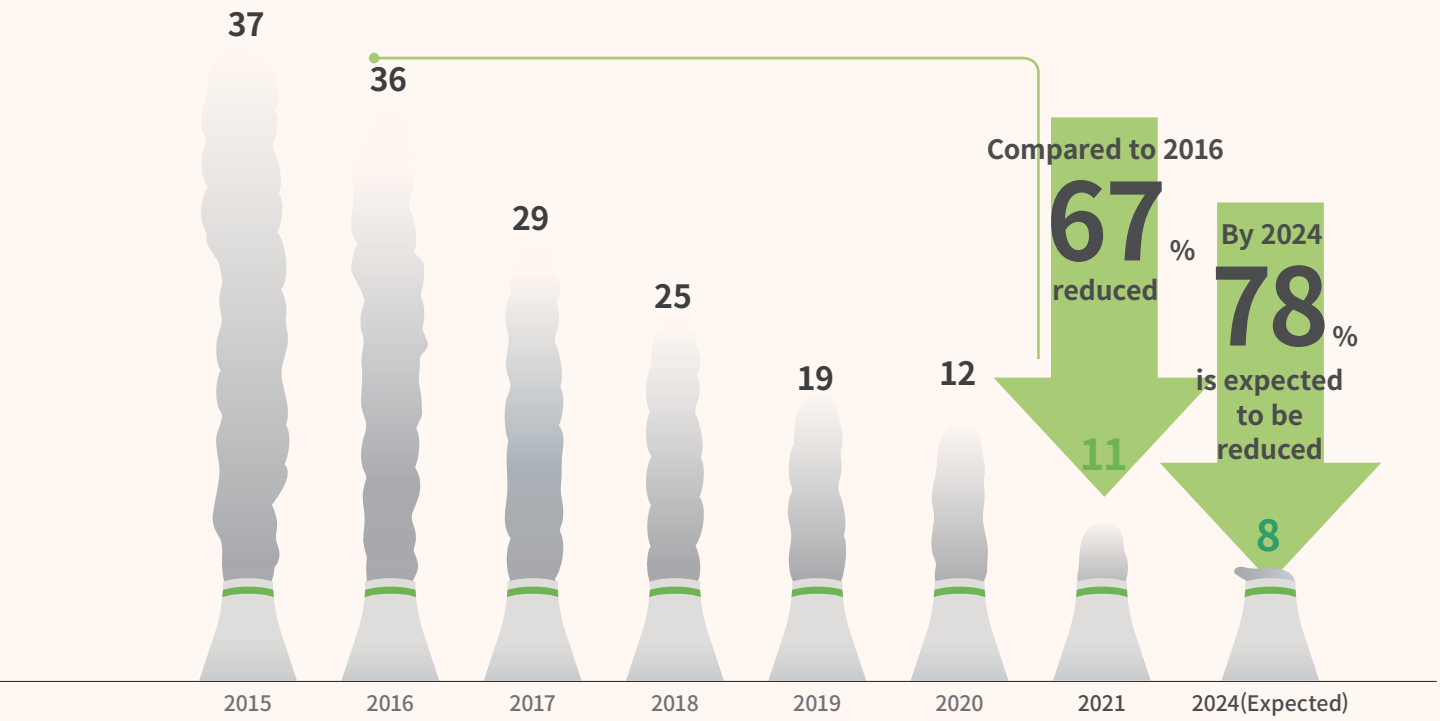
* As of June 2022, implementing 7 tasks (R&D cost 15.5 billion won), additional 6 tasks will be implemented in the future

Establishing the Roadmap for Reducing Fine Dust

In connection with the government's 'Fine dust comprehensive management measure', KEPCO and group companies are expected to cut down 78% of fine dust emissions in the power generation sector(41% of national total emission) compared to 2016 by 2024. We are consistently reducing the fine dust, such as by engaging in the 'Fine dust Seasonal Management System' in response to high-concentrated fine dust in winter, phasing out the coal power plants through energy mix, and carrying out joint R&D regarding fine dust reduction technology.

Group companies Fine Dusts Emissions

(Unit : 1,000 Tons)



* The emissions are calculated according to the PM2.5 transition rate : SOx 34.5%, NOx 7.9%, Volatile Organic Compounds 2.4%

Group companies Participation Performance of Fine Dust Seasonal Management

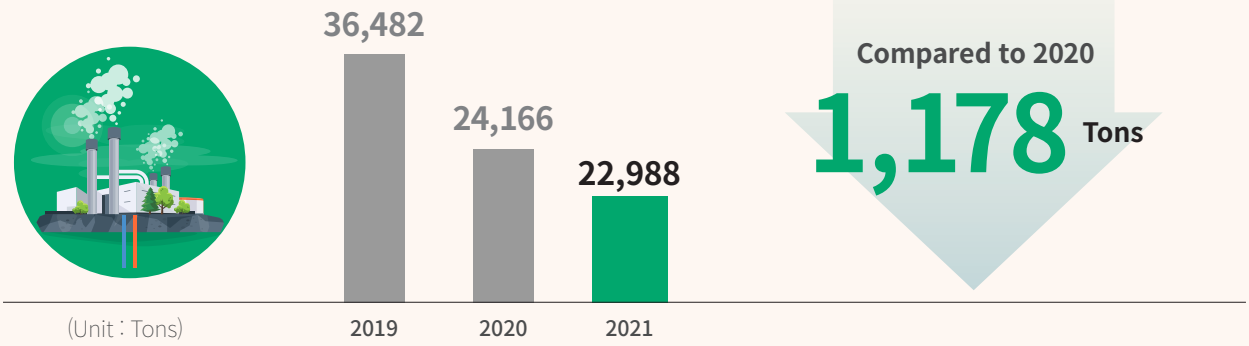
	First ('19.12-'20.3)	Second ('20.12-'21.3)	Third ('21.12-'22.3)
Target	60 Coal Power Plants	58 Coal Power Plants	53 Coal Power Plants
Operation Suspension	8~28 Plants	9~28 Plants	8~26 Plants
Upper limit	Maximum 49 Plants	Maximum 46 Plants	Maximum 46 Plants
Fine Dust Emissions	4,027 Tons	3,253 Tons	3,076 Tons

Improved Pollutant Management & Advanced Environmental Management

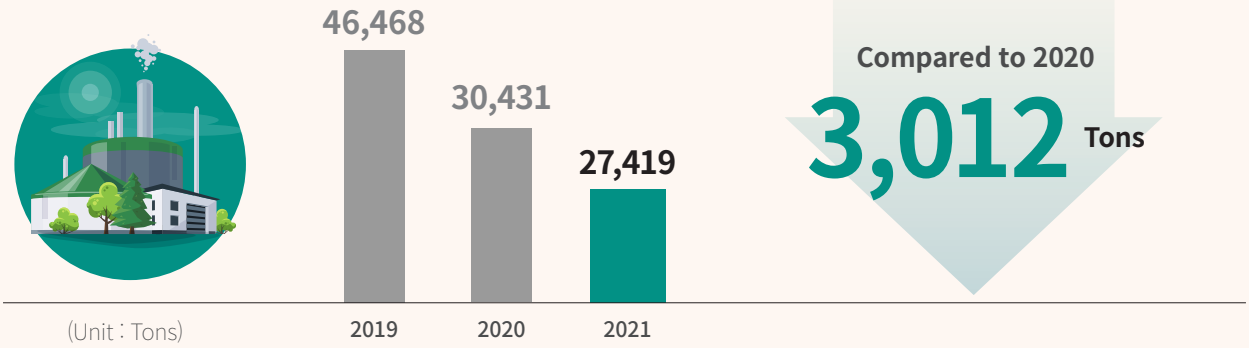
Strengthening the Management of Air Pollutants

KEPCO and group companies built the Clean SYS that can measure the air pollutants emitted from the operations' chimneys, including SOx and NOx, through Tele Monitoring System(TMS), examining the emission status in real time. Moreover, we are consistently making efforts to reduce air pollutants and introduced the world-best environmental infrastructures including flue gas desulfurizer, electric precipitator and DeNOx facilities.

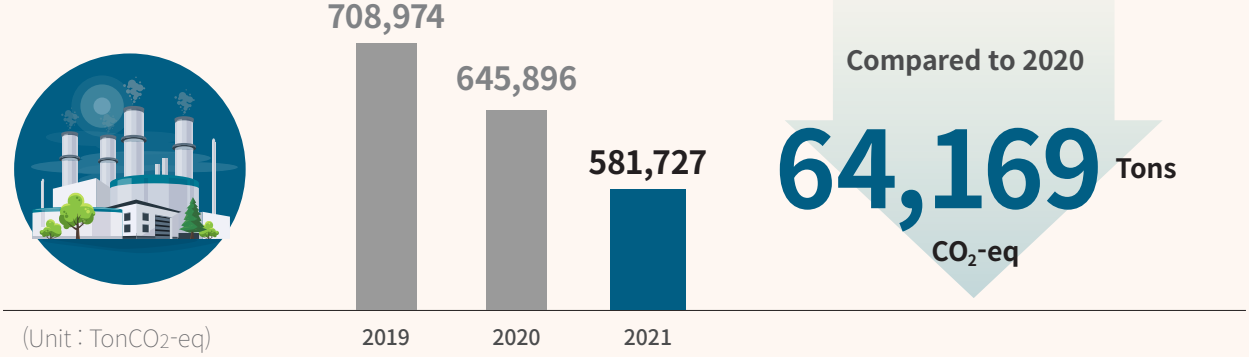
Group companies SOx Reduction



Group companies NOx Reduction



Group companies SF6 reduction

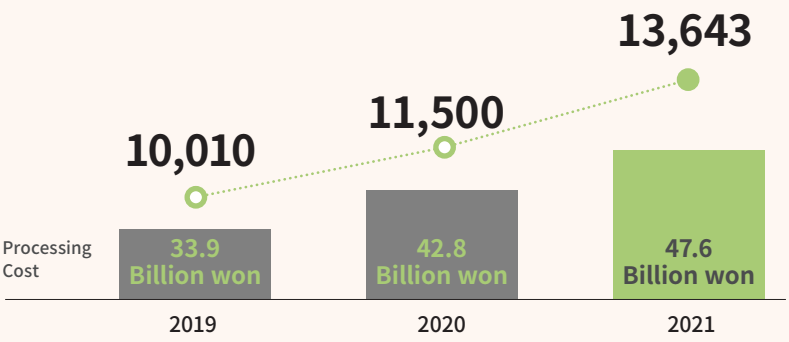


Strengthening the Management of Waste Reduction in Operations

KEPCO and group companies are increasing the recycling rate by discovering the new recycling areas for waste and byproducts occurred throughout the business activities, while managing the discharge performance of PCBs, coal ash, and desulfurized gypsum according to the Wastes Control Act and Persistent Organic Pollutants Control Act. We manage the discharge and processing through the expert PCBs analysis & processing company and reuse the wasted PCBs as the power generation fuel by collecting them, while also maintaining more than 90% of recycling rate in terms of coal ash and desulfurized gypsum. Going forward, we will strive to consistently reduce waste and increase the recycling rate by carrying out R&D regarding waste processing and discovering various purposes.

KEPCO Transformer Processing Performance Utilizing PCBs

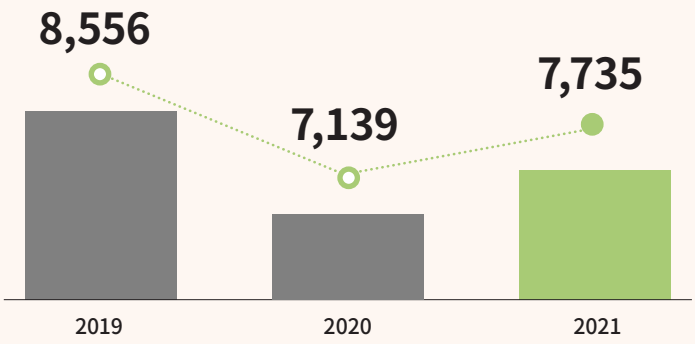
(Unit : The number of transformers)



PCBs reuse rate **100 %**

Group companies Coal Ash Volume

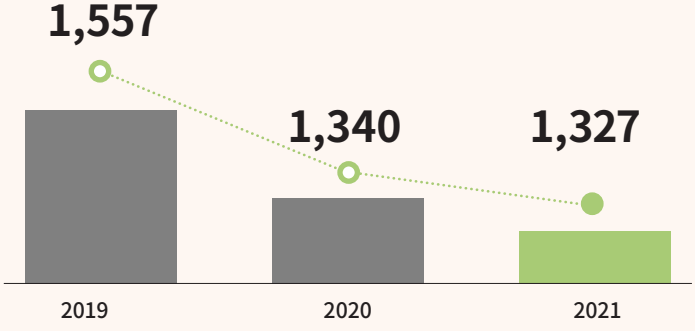
(Unit : 1,000 Tons)



2021 recycling rate **96.2 %**

Group companies Desulfurized Gypsum Volume

(Unit : 1,000 Tons)



2021 recycling rate **94.9 %**

Establishment of Environmental Management System

Strategy for Implementing Environmental Management

Implementing the Environmental / Health / Safety (EHS) Management Guideline

In consideration with domestic and overseas trends including carbon neutrality transition, fine dust reduction, green new deal expansion, environmental information disclosure, CSR, we amended the environment / health / safety(EHS) management guideline in June 2021. As the leading company in the electricity industry, KEPCO intends to actively carry out the environment / health / safety(EHS) management guideline for the sustainable company development and clean and safe society based on the spirit of human respect.

Environmental / Health / Safety (EHS) Management Guideline

01 EHS management is the most important value that is indispensable in terms of business activities. Global EHS management system is established and operated in domestic operations and all employees try their best to implement EHS management.

02 EHS-related laws should be observed. By discovering and retrieving environmental risks that may occur in the electricity industry and focusing on eco-friendly management, KEPCO evaluates and responds to the safety risks during the business activities and provides employees with safe and healthy working conditions.

03 EHS management should be delivered to all stakeholders including subcontractors and business partners. By encouraging participation with active communication, KEPCO strengthens the EHS partnership.

04 KEPCO establishes targets and detailed implementation plans to consistently improve the EHS management. The company should carry out EHS training and education for employees, while sharing new technology and ideas freely.

Current Status of EMS (ISO14001, etc) Certification of KEPCO and Group Companies

KEPCO complies with relevant domestic and overseas laws and regulations to implement the Environment / Health / Safety Management Guideline, while consistently composing organization to implement environmental management, adopting environmental management business division and detailed management guidelines and environment performance monitoring, carrying out environmental risk discovery and making it a task, and also implementing medium-and-long-term tasks. Environmental management-related matters are implemented based on EMS and KEPCO implements environmental management system certification every year for efficiency and reliability of EMS.

Current status of EMS (ISO 14001, etc.) certification of KEPCO and power companies

Classification	Certification Rate	Note
KEPCO	100%	Transmission, substation, distribution, related construction projects and operation, and nuclear power plant construction and operation for electricity sales
KHNP	100%	Headquarter, nuclear headquarter, water power and water power plant, etc.
KOEN	100%	Headquarter, Samcheonpo, Yeongheung, Yeongdong eco, Yeosu, Bundang power generation headquarter
KOMIPO	100%	Headquarter, Incheon, Seoul, Sin Seocheon, Boryeong, Jeju, Sin Boryeong, Sejong power generation Headquarter
KOWEPO	100%	Headquarter, Western Incheon, Pyeongtaek, Taean, Gunsan power generation headquarter
KOSPO	100%	Headquarter, Hadong, Sin Incheon, Busan, Southern Jeju, Yeongwol, Andong, Samcheok Bichedulim Headquarter
EWP	100%	Headquarter, Dangjin, Ulsan, Donghae Bio, Ilsan power generation Headquarter and Sin Honam area Construction Promotioon Headquarter

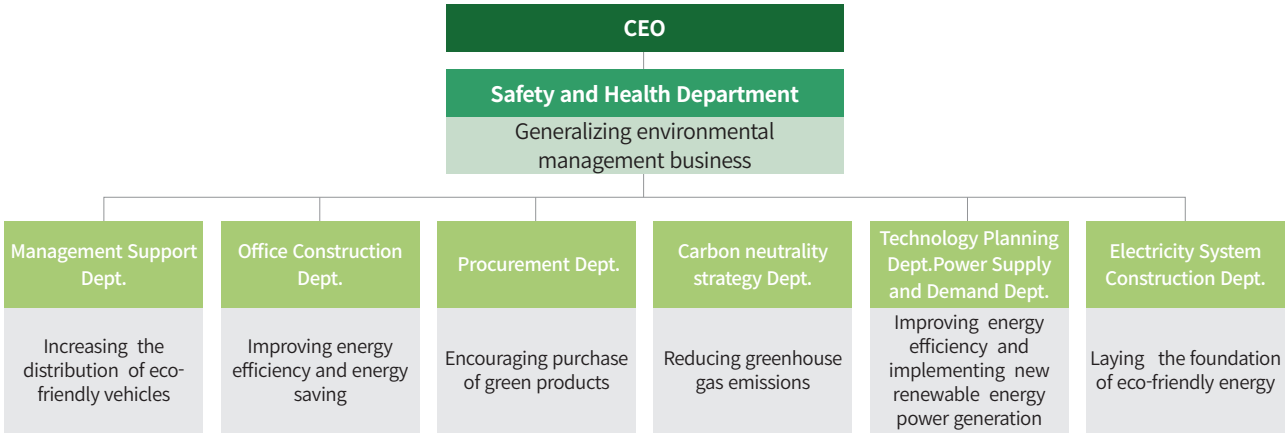
Environmental Management Vision and Target

In order to achieve eco-friendly growth and environmental protection, KEPCO set five environmental management targets and 12 implementation tasks under the environmental vision of 'KEPCO – A Smart Energy Creator', while managing the vision and targets by designating dedicated departments for each environmental management target and implementation task and reflecting them on KPI.

Vision	**KEPCO – A Smart Energy Creator**				
Core Value	**Future**	**Innovation**	**Respect**	**Social Value**	**Trust**
Target	**Laying the foundation of expanding eco -friendly**	**Improving energy efficiency**	**Responding to fine dust and climate change**	**Expanding eco-friendly facilities**	**Improving EMS consistently**

Establishing the Implementation Organization for Environmental Management

KEPCO's Safety and Health Department is setting and managing the 'implementation tasks for environmental management' to achieve enterprise vision and targets, while carrying out activities to establish and maintain the EMS. Moreover, in cooperation with Management Support Department, Office Construction Department, Procurement Department, and Transmission & Substation Operations Department, we are consistently discussing how to expand the performance of enterprise environmental management.



Implementation Performance in Environmental Sector by Indicator

Classification	2019	2020	2021
ISO 14001 Certification Rate(%)	100	100	100
Green Purchase Sum (Billion won)	263	241	299
Water Use (1,000 Ton)	2,911	2,697	3,224
Energy Use (TJ)	6,936	6,988	7,481
R&D Investment (Billion won)	3,630 (Performance) /4,270 (Plan)	3,497 (Performance) /4,449(Plan)	3,736 (Performance) /4,554(Plan)

Classification	2019	2020	2021
Transmission line status of underground transmission and distribution rates(%)	12.5	12.9	13.1
Distribution line status of underground transmission and distribution rates(%)	18.9	20.3	20.5
Inside substation rate(%)	64.9	65.2	66.1
Carbon emissions (tCO_2-eq)	1,104,904	1,043,431	1,007,156
Loss rate of transmission and distribution (%)	3.54	3.54	3.53

Resource Procurement and Establishment of Circular Economy

Strengthening Water Risk Management

Management of Water Resource Risks

KEPCO and power companies recognize that water resource is at risk globally, and are working hard to prevent water-related environmental risk factors. Electricity transport business and sales business of transmission and distribution networks are not exposed to water pollution risks. On the other hand, UAE Jordan where overseas businesses are ongoing is categorized as a water shortage country according to the WRI(World Resource Institute), WWF(World Wildlife Fund), and PAI(Population Action International). In response to this, KEPCO use sea water as cooling water in Saudi Arabia(Arabic), UAE(Shuweihat), Philippines(Cebu, Ilihan), not underground water, and use heavy water recycled from domestic sewage a s cooling water in China (Sanseo), and cool the water using air in Jordan(Al Quatrana), thereby managing and protecting the water.

Management of Water Usage

As one of the performance indicators to implement environmental management , KEPCO selects the water usage and manages the performance and targets every year. KEPCO collects the data of enterprise water usage from operations and has a system of examining and managing the performance monthly and yearly. Water usage information of KEPCO is disclosed on env-info(http://www.env-info.kr).

Minimizing Water Waste and Increasing Recycling Rate

KEPCO and group companies are striving to protect marine ecosystem and reduce carbon emissions through resource circular generation by developing waste water recycling technologies and establishing facilities. In particular, we are working hard to procure the technology to prevent water pollution and recycle waste water, such as by minimizing waste water discharge and processing desulfurized wastewater.

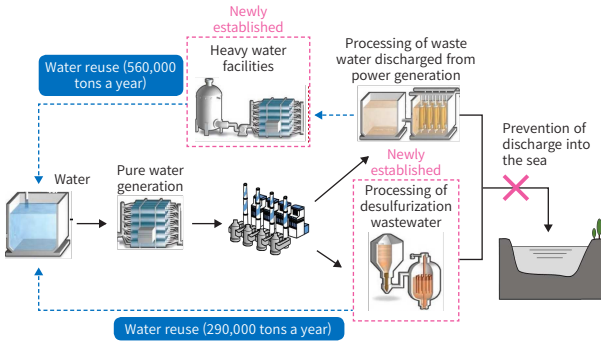
KOMIPO l ReWater70 Roadmap

In consideration with severe water shortage by region caused by climate change , Korea Midland Power established the Roadmap of 'KOMIPO ReWater 70.' This roadmap aims to increase the reused water usage to more than 70% by 2025 through discovery of unused water resource such as sewage and rainwater and reuse business investment. Korea Midland Power aims to secure 5 million tons of reuse water from sewage reprocessing , 330,000 tons of reuse water from rainwater, 1.34 million tons of reuse water from waste water among total reuse water.

Classification		2022	2023	2024	2025
ReWater Usage Rate		15%	20%	59%	72%
ReWater Usage (10,000 Tons)	Sum	141	189	552	667
	Sewage	26	35	400	500
	Rainwater	14	18	18	33
	Waste Water	101	136	134	134
Water Supply Usage Rate (10,000 Tons)		825	776	376	263

KOWEPO l Evaporation Enrichment Method

By applying the evaporation enrichment method in Taean 1~8 plants, Korea Western Power constructed the zero discharge system of desulfurized wastewater by evaporating waste water , crystallizing impurities, and generating distilled water to be used as power generation water. This facility enables desulfurized waste water to be reused 100%, securing 290,000 tons of power generation water every year, while minimizing the impacts on marine ecosystem by reducing the discharge volume. Going forward, we intend to secure 850,000 tons of power generation water by increasing the recycling rate of water resource through the expansion of waste water reuse facilities and application of integrated control system for water circulation.



Business Case Used Heavy Water Up-Cycling and Disposal

KHNP made a contract to supply the used heavy water to Chinsan nuclear power plant, China, by upcycling through the reduction of the tritium concentration of used heavy water. Heavy water is the combination of heavy hydrogen and oxygen and it is used as a reactor moderator or coolant and heavy water reactors, including the first Wolsong Nuclear Power Plant, will be permanently phased out. By 2029, a total of 4 plants will be permanently stopped. KHNP developed the upcycling export model of used heavy water without usability, while laying the foundation for creating additional profits regarding nuclear power, in addition to reducing storage cost.

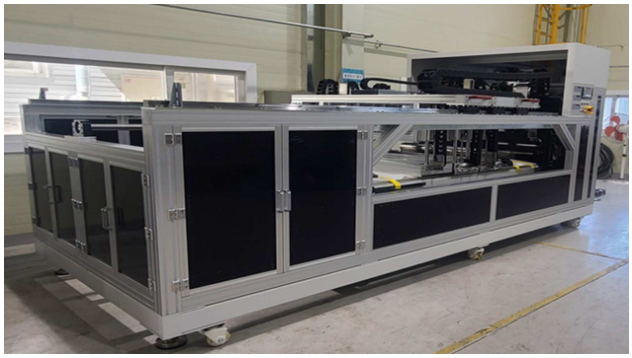
Securing Energy Resource

In line with the competitive energy market to secure energy resource, KEPCO and power companies are striving to secure energy resources stably. The company supplies necessary fuel to overseas Independent Power Producer(IPP) business, thereby increasing the competitiveness to secure IPP business, while planning to minimize business risks, such as by initiating the CNG and shale gas business, coal terminal business, expanding bituminous coal investment in Australia, Indonesia, North America, and expanding uranium investment in Canada, Africa, and Australia to make an optimal investment portfolio. Other than this, we are actively responding to changing environment thro ugh the resource quantity secured thro ugh various businesses including resource trading business, while also promoting the stability of electricity supply.

Recycling Operating Waste

KEPCO and group companies strive to recycle wastes including waste paint and waste thinner as well as metaloccurred in the process of business activities. The company recycles the waste through the recycling company when it comes to recyclable waste, while incinerating and reclaiming the waste that can not be recycled according to the eco-friendly process and lawful process. Moreover, for the disposal of PCBs(Poly Chlorinated Biphenyls) that is categorized as harmful waste, we strictly control the waste transformer according to the PCBs management process, while also discharging and disposing waste transformers containing concentration of 2ppm or more through the PCBs analysis and disposal agency certified by the Ministry of Environment every year. In addition to this, to promote the resource circulation, power companies are currently expanding the waste recycling of coal ash and desulfurized gypsum, while taking the lead in fostering resource circular economy by developing recycling technology regarding by products.

Joint development of green hydrogen energy that enables recycling of waste resource

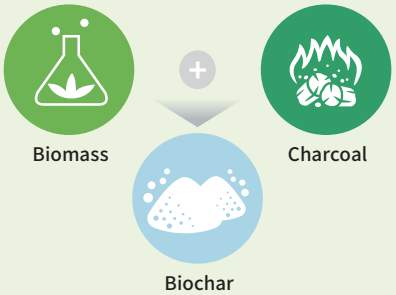


Recycling device of waste photovoltaic modules, glass separator

Marine construction utilizing pond ash (Sofa block)

Business Case **KOEN's Resource Circulation Activities**

KOEN reduced the SOx emissions through upcycling by recycling 'oyster shell' that used to be abandoned on ocean as SOx absorbents, while contributing to increasing production and sales of SOx plaster, reducing waste disposal cost, and creating jobs. In addition to this, in order to reduce the cost of disposing byproducts from power plants that use wood pellets as fuel, the company is producing the farmland improvement additive(Biochar) applying the waste recycling technology. Charcoal from burning is recycled as organic biochar, which is improving farmlands, thereby contributing to reducing the production cost of the farmland improvement additive and revitalizing local economy.



Environmental Protection for Sustainable Future

Identifying Biodiversity Based on Environmental Impact Assessment

Based on the Nagoya Protocol, the international protocol containing the utilization guideline of living resources among countries, KEPCO and group companies are strictly managing the status of biodiversity around construction areas. We select the area through strategy impact assessment in consideration with surrounding nature and landscape in case of construction, while analyzing impacts on ecosystem caused by construction from the establishment of construction plan by strictly implementing environmental impact assessment. Based on strategy impact assessment and environmental impact assessment, we are applying design and construction methods that can protect river, soil, geomorphic environments, and biodiversity. KEPCO and group companies comply with laws and regulations regarding biodiversity improvement, wildlife protection, landscape preservation, forest/soil/water resource use, while making utmost efforts to preserve and expand the living animals and species when certain species and living animals have been destroyed due to business activities. For the protection of lands, marine areas, river, and coastal ecosystem, we are carrying out systematic biodiversity protection activities, such as by consistently monitoring environmental impacts, establishing and implementing environmental restoration plans even after constructing electricity facilities. In particular, when required by law s and regulation s and stakeholdersincluding local com munities, we are carrying out dedicated biodiversity protection activities in consideration with the environmental characteristics of regions containing electricity facilities. Moreover, we are al so carrying out specialized programs and voluntary services attended by employees to protect and restore endangered wildlife, sea creatures, and globally endangered species near electricity facilities.

KEPCO Status of Environmental Impact Assessment Implementation

* As of December 31, 2021

Examination regarding environment	Environment impact assessment	Small-scale environment impact assessment
2 Cases	5 Cases	52 Cases

Total 59 Cases

KEPCO The Number of Operations Paying the Ecosystem Protection Cost

Total 23

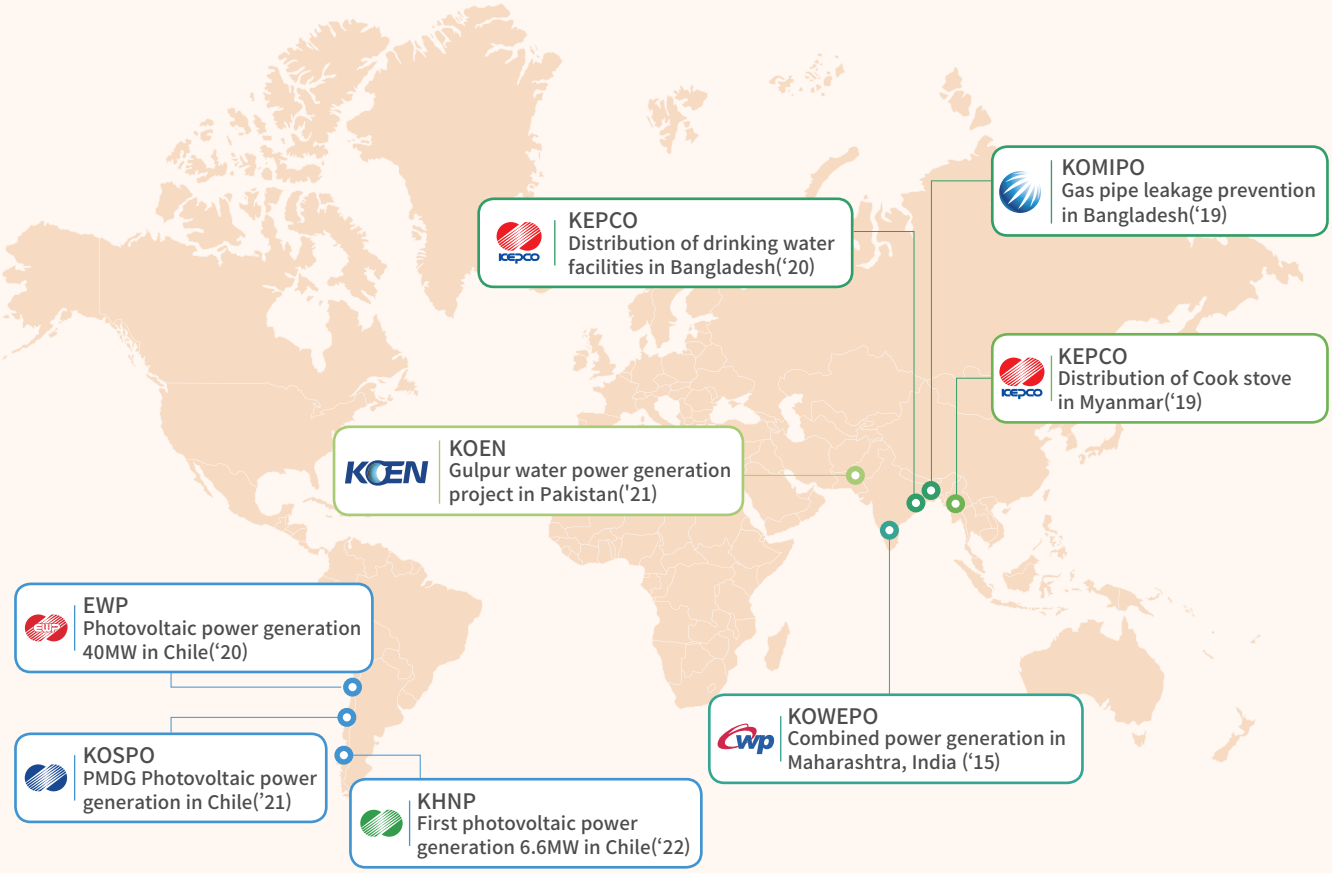
Implementing Overseas Greenhouse Gas Reduction Project

As a global electricity company, KEPCO and power companies have been activelyimplementing CDM(Clean Development Mechanism) to reduce greenhouse gas emissions. CDM aims to invest capital and technology into developing countries regarding greenhouse gas reduction projects. Advanced countries can reflect the reduced emissions on their contribution performance and they can help developing countries without NDC to achieve sustainable development.

Moreover, according to the transition into Paris Agreement, SDM(Sustainable Development Mechanism) transition will be carried out, and KEPCO and group companies will discover and plan carbon reduction projects related to social and environmental issues of developing countries under the new SDM regime, while implementing greenhouse gas reduction projects in cooperation with local experts and agencies.

CDM Business Project in Myanmar

Group companies Current Status and Business Models of Overseas Greenhouse Gas Emission Reduction Projects



	Renewable Energy	Efficiency Improvement	Forestation Business
Reduction Mechanism	Replacing thermal Power Generation and reduction CO_2 emissions	Improving efficiency by replacing energy devices and reducing CO_2 emissions	Removing greenhouse Gas caused by sinks
Type	Photovoltaic power, wind power, water power, bio power, geothermal power, tidal power, and wave power, etc.	High efficiency devices, cook stoves, water purifiers, and electric bikes, etc.	Forestation/Reforestation in wetlands Forestation/Reforestation in non-wetlands

Environmental Protection for Sustainable Future

Expanding the Construction of Zero Energy Buildings

KEPCO and group companies strive to respond to the government's zero energy policy by coming up with practical smart building construction and reducing energy consumption utilizing smart element technologies. For the energy management of newly established buildings, we reduced the carbon emissions compared to the existing amount by minimizing energy consumption through the application of optimized smart technologies and HMI(Human Machine Interface). Moreover, utilizing smart technology based on digital IoT sensors, we are raising economic feasibility by establishing and managing the integrated system that analyzes energy consumption.

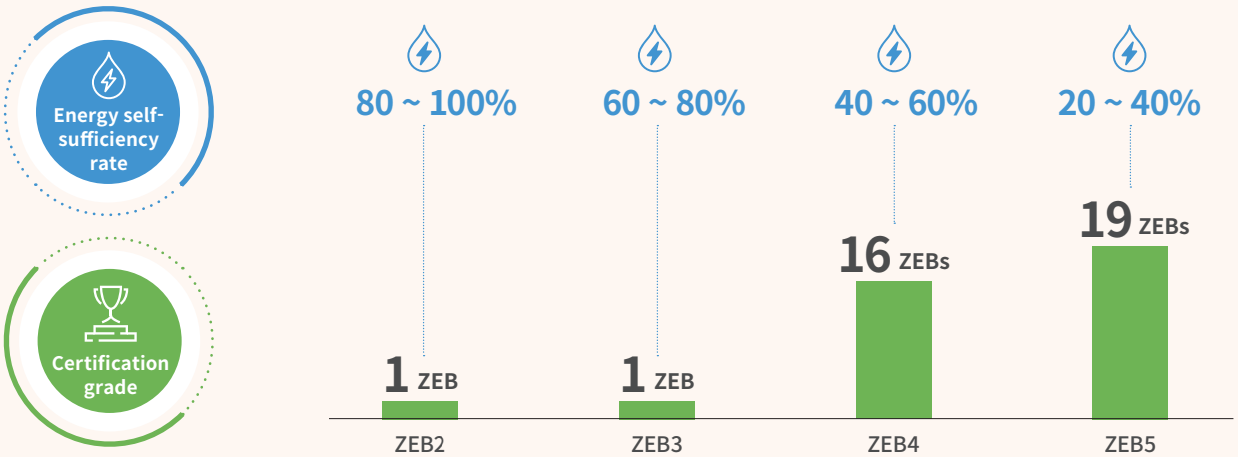
Furthermore, when renovating a building, we improved the insulation, blind facilities, windows and doors, built efficient cooling and heating facilities, and placed the lights efficiently, thereby minimizing energy waste. We have also increased the proportion of renewable energy such as PV and geothermal heat, while also improving energy consumption patterns of employees and controlling energy production and consumption through the stricter energy management system.

Group companies Zero Energy Building(ZEB) Certification Status

As of August 2022

KEPCO 15 ZEBs	KHNP Power 6 ZEBs	KOEN Power 4 ZEBs	KOMIPO 2 ZEBs
KOWEPO 1 ZEB	KOSPO Power 7 ZEBs	EWP Power 2 ZEBs	

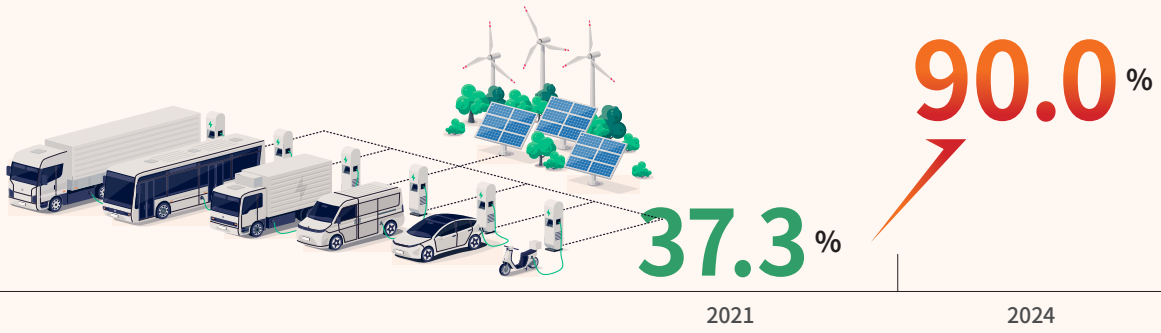
A total of **37** ZEBs

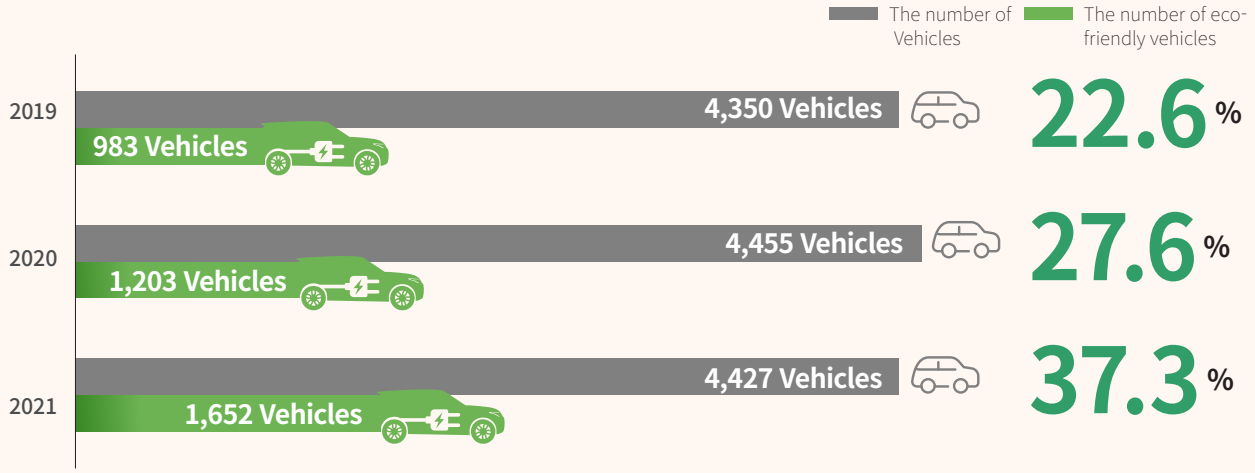


Expanding Eco-friendly Vehicles for Business Use and EV Charging Infrastructures

KEPCO and group companies are implementing environmental management by expanding eco-friendly vehicle infrastructures. In line with the government's eco-friendly vehicle distribution policy, we are currently increasing the proportion of EV cars and hybrid cars when changing the existing business car, while increasing the number of charging infrastructures, including high-speed battery chargers, to ease theinconvenience and increase the distribution of EV cars. KEPCO and group companies aim to contribute to reducing greenhouse gas emissions through electrification in the transport sector.

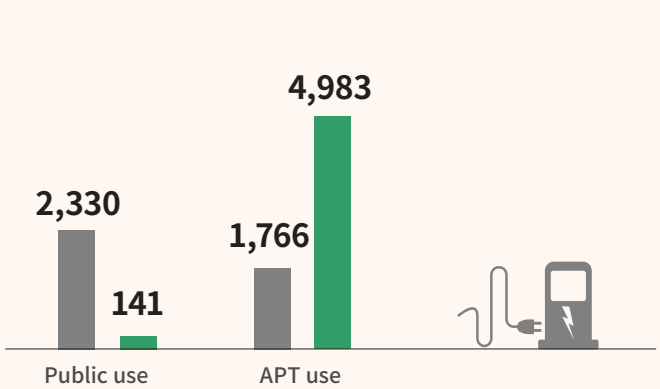
Group companies Proportion of Eco-friendly Vehicles for Business Use





KEPCO Current Status of Charging Infrastructure

(As of September 30 2022, Unit : Number)



Charging Infrastructures

9,220

Environmental Protection for Sustainable Future

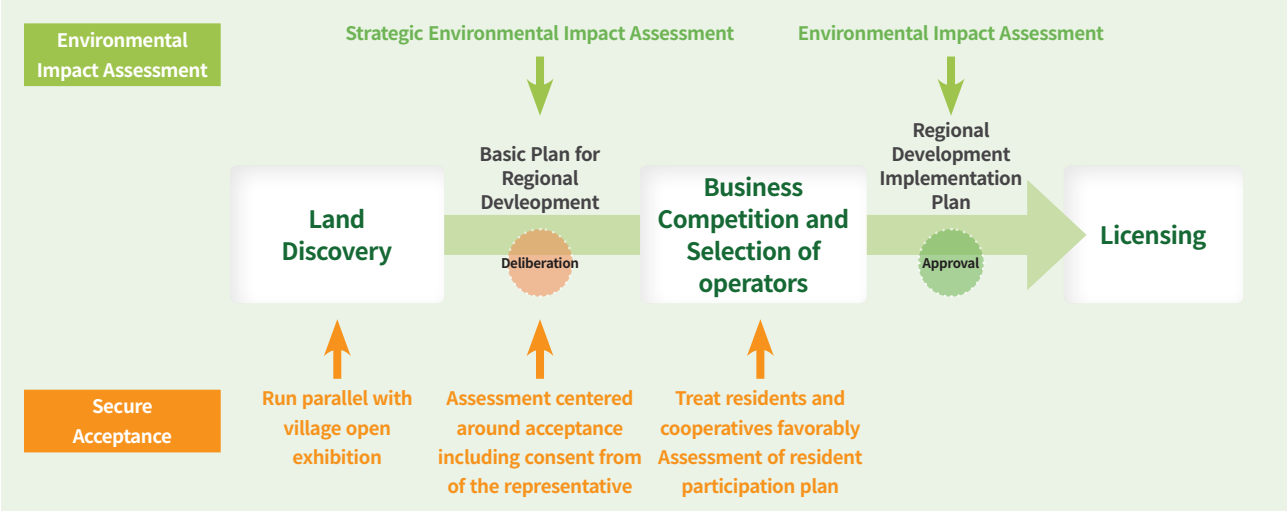
Minimizing Environmental Impacts

Biodiversity Protection Based on Environmental Impact Assessment

When constructing facilities including steel towers, transmission lines, and substations, KEPCO is striving to minimize environmental impacts by carrying out environmental impact assessment according to the Environmental Impact Assessment Law. Moreover, we are carrying out an environmental impact assessment regarding electricity facilities through various expert groups, such as the Korean Society of Fisheries and Aquatic Science, the Ornithological Society of Korea, Korean Society of Environment and Ecology in order to study the ecological characteristics of endangered species, unique species, and group habitat species, while predicting and analyzing environmental impacts according to the implementation of development projects in cooperation with Korea Environment Institute. We measure the risks of environmental impacts through follow up research in regions appointed as transmission and substation areas, while also cooperating with dedicated offices and local environmental agencies to minimize environmental impacts. We monitor the environmental impacts through follow-up research, thereby reporting the results to all stakeholders through environmental impact assessment paper.

Complying with the Environmental Management Certification and International Regulations

KEPCO is taking the lead in acquiring and maintaining the Environmental Management System(ISO 14001) certification, protecting living animals, and eradicating deforestation. Moreover, by closely cooperating with all stakeholders including subcontractors and business partners, we encourage them to abide by the deforestation prevention policy and relevant declarations, while working hard to implement Net Deforestation Zero through reforestation by 2050. Here at KEPCO, we manage and measure the impacts on the ecosystem, atmosphere, marine system, and land environment below legal standards, while all operations that are subject to the international convention (UNESCO World Heritage Site, IUCN category I-IV protected area) are complying with domestic and regional legal requirements. Through this, KEPCO sets a goal of achieving NNL(No Net Loss) and NPI(Net Positive Impact) of biodiversity, and at the same time, the company aims to apply the same conditions to first and second subcontractors as well as domestic and overseas operations.



Business Case Establishing the Eco-friendly Power Generation System in Island Areas

In order to improve the life quality of island areas and respond to the climate environment policy, KEPCO plans to complete the power generation system transition by converting the diesel engine into new renewable energy in 42 island areas, including Ulleungdo and Yeonpyeongdo by 2025. In 2021, we invested 33.7 billion won in 13 island areas, converting diesel engine into ESS hybrid power generation utilizing renewable energy, resulting into 3,739 tons of greenhouse gas emission reduction and 940 million won of fuel cost and greenhouse gas transaction cost.

Composition of eco-friendly generation system facility : Photovoltaic power/wind power + storage system(ESS)

KEPCO, Air Pollution Reduction Facilities (Jeodong, Ulleungdo)

Various Biodiversity Preservation Activities

KOEN | Migratory Birds Habitat Preservation

In cooperation with the intenraitonal organization, EAAEP(Easy Asian-Australian Flyway Partnership), KOEN is carrying out an economy preservation project to protect migratory birds and their habitats. Incheon containing Yeonheung Power Generation Headquarter is place where many migratory birds, including 80% of spoonbills living in this area, moving across the East Asia-Oceania, stay on the way. In cooperation with EAAFP and Incheon city, KOEN is trying its best, such as by cultivating experts to preserve migratory birds and supporting the recruitment of waste-collecting workers in habitats and safety education trainers who watch migratory birds.

Signing MOU to protect migratory birds and support preservation activities

KOEN | Blue carbon sea forest project

In order to discover the carbon sinks and protect the local ecosystem for climate change response and marine ecosystem, KOEN is making the blue carbon sea forest. It is building the blue carbon development model with Incheon city and Incheon university and selected sea grass as marine sinks after communicating with experts. Sea grass is a marine organism and it turns out that it has 50times better CO_2 absorption capabilities than forests. Accordingly, we will implant 400m^2 of sea grass in the ocean around the Yeongheung Power Generation and additionally implant the 10,000m^2 of sea grass. With the expansion of spawning grounds and habitats through sea grass implantation, it is expected that the number of marine species will increase and 500tons of CO_2 will be reduced every year per 10,000m^2 of sea grass.

Forming blue carbon sea forest

* Blue carbon : The carbon that is absorbed by marine organisms such as sea grass and salt plant

KOMIPO | Dongbaekjeong beach restoration project

By listening to the opinions of Seocheon residents who want to restore the Dongbaekjeong beach reclaimed due to power generation construction, KOMIPO is implementing coast restoration where nature and humans can coexist and restoration of existing coastline. It has been carried out by planting salt plants using eco-friendly soil and Korea Midland Power will become the first power generation company that will restore the wasted coast ecosystem by forming the carbon sink blue carbon coast. The beach restoration project was launched in March 2021 by listening to a lot of opinions from local residents, local governments, expert, local community consultation, and safety observer groups. There lave been no accidents so far thanks to thorough field safety monitoring and it contributed to job creation for 362 people. Moreover, it was awarded the best ministerial prize in the nature environment grand prize from the Ministry of Environment since it has successfully restored the beach which is geographically connected to Seocheon mud flat and the national treasure, Dongbaekjeong.

Dongbaekjeong beach beore construction

KOMIPO Seocheon thermal electric power plant

Beach restoration blueprint

Social

With an aim to create a ‘Value contributing to public interest and community development’, KEPCO and group companies are building a role model for public corporations beloved by the citizens, taking the lead in terms of creating sustainable social value based on the ‘Establishment of an inclusive society’ and ‘Solidarity and cooperation’ with the mindset of respect for humanity. KEPCO and group companies are providing growth program to continuously enhance competency of employees, adopting an organizational culture based on diversity and inclusion, and creating a happy and health workplace, with renewed awareness on safety, healthcare and practices. In addition, we are pursuing management activities that respect and protect the basic rights of all stakeholders, including customers and local communities.

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Boost Supply Chain Competitiveness to Create an Ecosystem for Shared Growth

- Sustainable Supply Chain Establishment
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- Supporting SMEs for Innovative Growth and Pursuing Shared Growth
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Safety/Disaster/Security Response System

- Realization of a Safe Workplace
- Cyber Security and Personal Information Protection

Strengthen the Social Safety Net

- Social Contribution Activities

Create Quality Jobs & Improve Employee Satisfaction

- Strategic Personnel Management
- Inclusive Corporate Culture for Friendly Working Environments

Boost Supply Chain Competitiveness to Create an Ecosystem for Shared Growth

KEPCO and group companies have built various systems to grow together with SMEs for a stable supply of high-quality power. We have established a one-stop support system for the entire value chain of SMEs, including market development and R&D cooperation and designate highly innovative SME products as innovative products in the energy technology market and implement a policy to give priority to these products in purchase. In addition, a roadmap has been developed for procurement of eco-friendly electric equipment and materials to induce an eco-friendly transition throughout the supply chain.

SMEs Support Direction

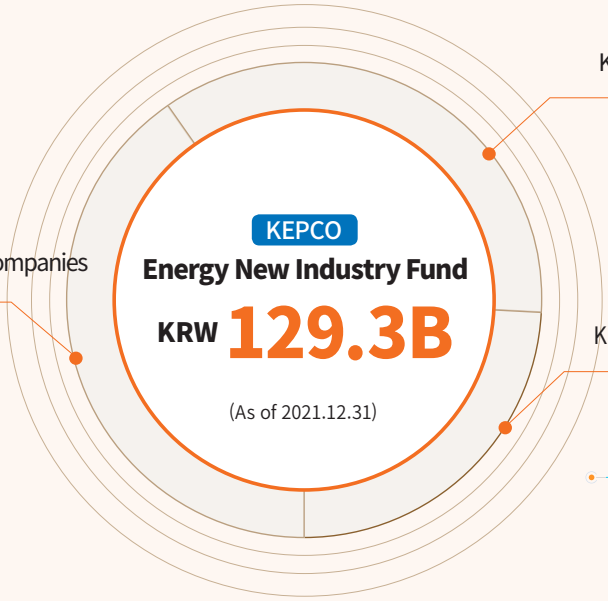
● SME Support Projects
- Marketing Support
- Mutual growth support

● SME Cooperative R&D
- Technology contest and proposals
- Cooperative R&D

● Technology Transfer & Promotion
- Technology transfer to SMEs
- Product and technology promotion

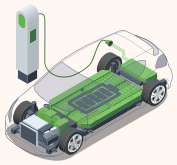
● Innovation Evaluation
- Innovation evaluation
- Expanding innovative procurement

Support for SMEs Growth



KRW **52.2B** / **20** Companies
Eco-Friendly

KRW **46B** / **10** Companies
Future Cars



KRW **31.1B** / **12** Companies
AI etc

● Hold BIXPO 2021

Participating Partners **251** Companies

Export $ **29.5M**

'21 Korea Commission for Corporate Partnership evaluation of public institutes in mutual growth

Winning the Best

* KEPCO and 6 group companies

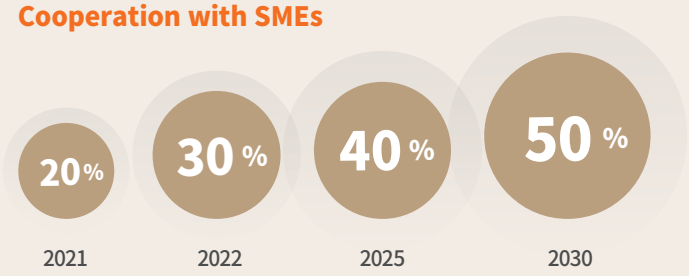
R&D Support

KEPCO R&D in Cooperation with SMEs

Identifying and Implementing **20** Cases

Annual revenue of SMEs KRW **431.9B**

KEPCO Percentage of green projects in R&D in Cooperation with SMEs

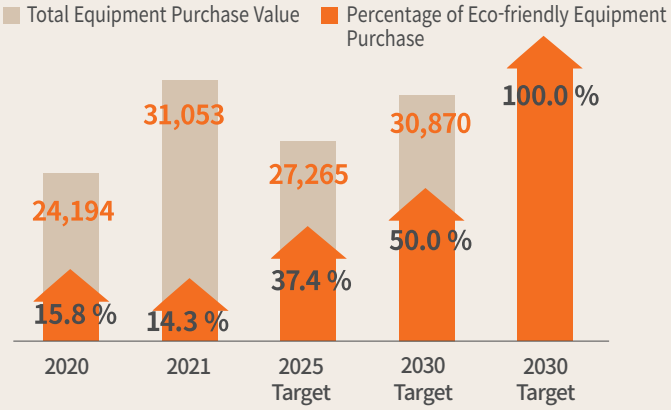


Purchasing Competent SME Products

KEPCO Eco-friendly equipment purchased and target

2040 Target
Percentage of Eco-friendly Equipment Purchase **100** %

(Unit : KRW 100M)



Group companies Energy Technology Market Innovation Product Purchase

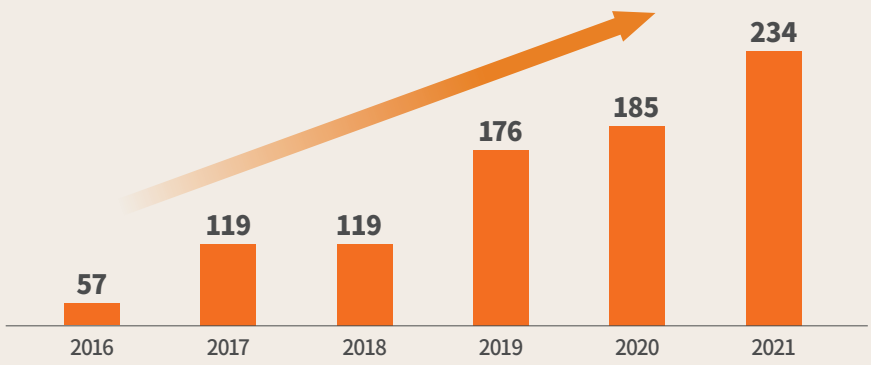
Designated as Innovative Products (Unit : Cases)

Innovative Product Purchase (Unit : KRW 100M)

Technology Transfer to SMEs

KEPCO Achievements of Technology Transfer

(Unit : Cases, Cumulative)



Sustainable Supply Chain Establishment

Establishing Supply Chain Management System

Distribution of Code of Conduct for Suppliers

KEPCO has adopted a Code of Conduct for Suppliers' as sustainability standards for all suppliers to comply with. The Code of Conduct for Suppliers is based on the 10 principles of the United Nations Global Compact(UNGC), OECD Due Diligence Guideline and Fundamental Conventions and defines specifies ethical, environmental, and social standards. It provides guidance to all domestic and foreign partners in business relationships with KEPCO, along with their employees, agents and sub-contractor s and ask them to comply with the guideline.

Details of the Code of Conducts for Suppliers

Ethical Standards	• No bribery including money and other valuables • No unfair trade including collusion	• No solicitation for benefits of one's own or others • Ethical education and corruption reports
Social Standards	• Compliance with domestic and foreign tax and labor laws • Prohibition o f child labor	• Prohibition of discrimination in employment • Guaranteeing freedom of assembly and association and right to collective bargaining
Environmental Standards	• No bribery including money and other valuables • No unfair trade including collusion	• Provision of safety equipment and safe work environments • Environmentally-conscious management activities

Supply Chain ESG Risk Management

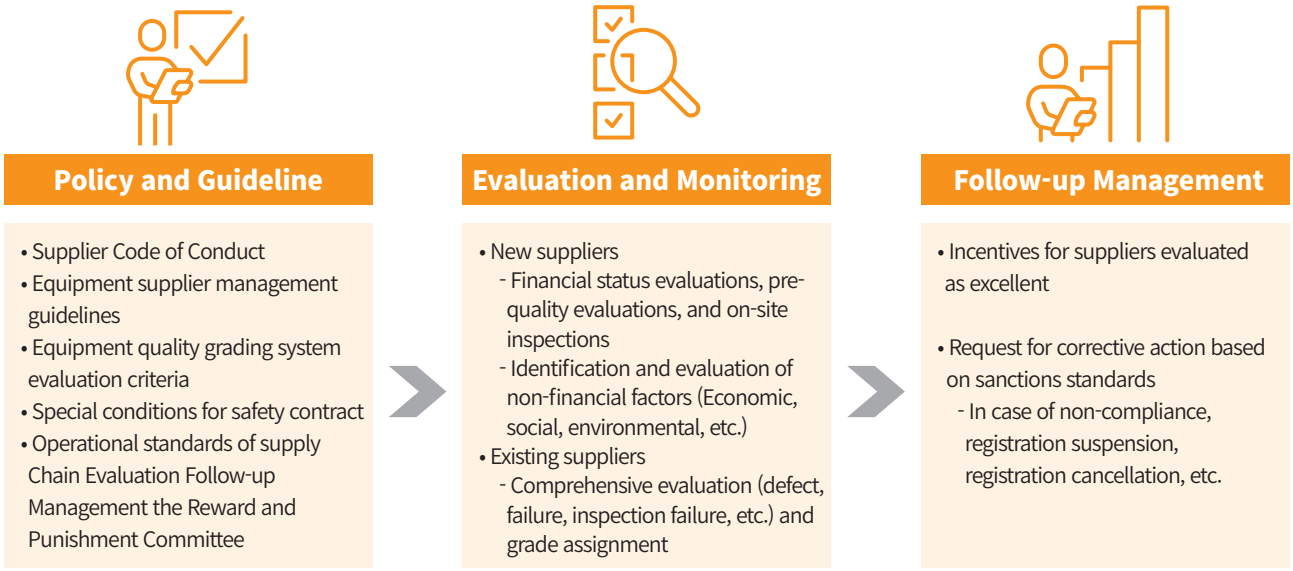
KEPCO is reflecting non-financial risk evaluation indicators in the existing supply chain evaluation process to diagnose and improve non-financial(ESG) risks within the supply chain. Non-financial risk evaluation indicators include economic indicators such as credit rating, equipment quality rating, quality management system(ISO 19001) certification, environmental indicators such as eco-friendly product certification, production environment management and violation of environmental laws, and social indicators such as sanctions for anti-corruption and subcontracting law violation, safety accidents, and safety of equipment securing.

Supply chain evaluation is conducted in written evaluation and on-site inspection. The written evaluation is the evaluation based on the responses and evidence(data, etc.) submitted by the suppliers for each evaluation index at the time of contract bidding, and is used as basic data to identify potential risks of the suppliers. In addition, for low performers in the quality evaluation, the test to evaluate equipment performance and quality inspection are conducted to prevent quality risk.

Key Supplier Chain Evaluation Indicators

Economic Indicators	Environmental Indicators	Social Indicators
• Credit rating equipment quality • Quality management system(ISO 9001) certification	• Compliance with laws(Violation of environmental regulations, etc.) • Eco-friendly product certification, production environment management	• Compliance(Anti-corruption, Sub-contracting) • Safety violation(Safety accidents, equipment distribution, etc.)

Supply Chain Management Process



Supply Chain Evaluation Follow-up Management

KEPCO conducts on-site inspections of suppliers likely to have high risk based on the results of our supply chain evaluation in order to establish and implement a corrective action plan and regularly conduct follow-up management. We also impose sanctions such as suspension of registration and cancellation of registration for ineligible companies who have violated regulations, including bid rigging or false or forged documents, depending on the degree of violation following a decision by the Reward and Punishment Committee.

Supply Chain Fairness and Transparency Improvement

KEPCO is striving to improve our systems and processes to protect partner companies' rights and interests and establish a fair economic order. We are reviewing and amending our terms and conditions, guidelines, etc., in order to discover elements of unfairness across our company rules and regulations related to transactions with business partners. Furthermore , we became the first domestic company to introduce a reward system(up to KRW 20 Million) for reporting unfair procurement practices. We also continue to make concerted and diverse efforts at increasing the transparency of contract work, expanding information disclosure by prohibiting contact with retirees, operating a reporting system, and establishing an integrated management system for small-value private contracts.

Key Supplier Management

Here at KEPCO, we designated major power equipment, such as transformers and switchgear, that significantly impact power quality and supply stability, as 'Trusted Items' and only allow pre-registered companies with the required manufacturing capabilities and quality systems to participate in bidding. After pre-examining those companies who registered their trusted items in terms of quality and process, we manage them as key suppliers, classifying them into the following categories: transmission; substation; distribution; and ICT. In addition, we are managing supplier chain risk by having the pre-registered suppliers of trusted items receive permission in advance before using core parts.

Key Supplier Status

As of Dec. 31. 2021

Supplier Type		No. of Suppliers
Total 1st-tier Suppliers		1,297
Key Suppliers	Registered Producers of Trusted Items	268
	Registered Producers of Core Parts	577

Supply Chain ESG Support & Dissemination

Electricity Equipment Supply Network ESG Innovation

In order to achieve carbon neutrality in the power equipment supply chain and lay the foundation for a fair economy, we are promoting ESG management projects for SME suppliers in three areas: 'Provision of incentives for eco-friendly companies', 'Social responsibility for safety management', and 'Governance of communication and cooperation'.

Incentives for Eco-friendly Partners

In order to lead the decarbonization of electric power equipment and promote the expansion of eco-friendly electric equipment in the market, KEPCO is implementing preferential policies such as granting additional points in purchase qualification screening for eco-friendly partners. For green certified partners, 50% cut in contract deposits is provided and eco-friendly product development costs are reflected in bidding prices to encourage suppliers to conduct R&D of eco-friendly products. In addition, we support the costs required to acquire eco-friendly certifications such as the environmental management system(ISO 14001), environmental product declaration, and low-carbon products to ensure our suppliers can establish an eco-friendly management system.

Social Responsibility for Safe Management

In order for suppliers to strengthen safety and health investment, KEPCO amended contract rules to reflect safety management costs when signing product manufacturing agreements with suppliers. We have also established safety management standards for material transportation to strengthen the safe operation and cargo loading management of suppliers. Also, in rewarding equipment suppliers, we are providing incentives by giving additional points to suppliers that have been certified for the safety and health management system(ISO 45001).

Governance of Communication and Cooperation

To revise the purchase agreement system unreasonable to partners, we are introducing a public auditor system in which partners participate, and discuss win-win cooperation measures such as priority purchase by organizing a public corporation agreement consultative body. In addition, we introduce incentives for eco-friendly suppliers through periodic policy sharing meetings with partners and related organizations, to listen to opinions of partners and define improvement tasks and reflect them in the procurement system

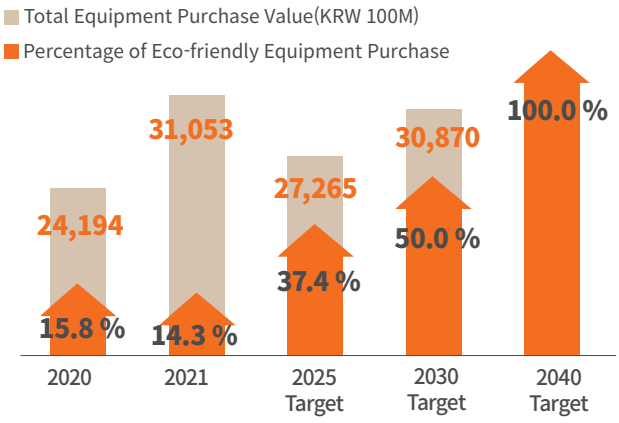
Building Governance of Partner Communication

Building Consensus (Education, Promotion)	- Eco-friendly equipment procurement and technology/ quality roadmap sharing - Promoting the incentive system for eco-friendly partners - ESG education for partners
Building Feedback System	- Equipment procurement policy sharing - Gathering opinion / Defining improvement tasks

Expansion of Eco-friendly Power Equipment Purchases

We are expanding the purchase of eco-friendly power equipment in order to achieve carbon neutrality throughout our supply chain. We organized 'Eco-friendly Power Equipment Purchase TF' and established the following three primary directions : 'policy and institutional improvement'; 'R&D innovation'; and 'Eco-friendly technology transition' and adopted a carbon-neutral procurement roadmap. With these measures KEPCO aims to achieve 100 % of purchases being eco-friendly by 2050.

Eco-friendly Power Equipment Purchase Roadmap



SMEs Energy Efficiency Improvement Support

Organizing a consortium of KEPCO-Consulting Agency-SMEs, it supports SMEs' energy efficiency improvement by diagnosing their energy use status and providing consulting on reduction technologies. SMEs can receive on-site energy diagnosis, technical consulting, and post-consulting support free of charge.

ESG Competency Improvement Education Support

KEPCO provides customized practical training courses to develop job competencies for SMEs that lack capacity building costs and manpower among KEPCO partners. Employees of SMEs can take online and offline courses required for job performance, such as compulsory courses, management, leadership, business, IT/OA, and foreign languages. As ESG management is becoming more important, we are also providing training courses to strengthen ESG, safety, and energy-related capabilities.

Provide ESG Fund Support

KHNP I Contribution to ESG Win-Win Cooperation Fund

KHNP decided to promote the ESG support project for partners by contributing to the Win-Win Cooperation Fund. It is engaged in a wide range of support activities for strengthening suppliers' competencies, such as development of customized ESG evaluation indicators for suppliers, ESG training and competency diagnosis, on-site due diligence and consulting, and evaluation on follow-up management. KHNP will continue to support suppliers to help them acquire ESG capabilities.

KOSPO I ESG Innovation Growth Fund Support

KOSPO is promoting the ESG financial support project for SMEs jointly with Korea Housing Finance Corporation and Hana Bank. In order to help SMEs strengthen growth potential and ESG technology, it provides preferential loan interest rate and other financial benefits for SMEs meeting assurance requirements in the environmental sector such as carbon neutrality, eco-friendliness, and coal-free, in social sector such as social economy companies, safety certification, and in governance such as ethics and integrity.

Provide ESG Incentive

KOEN I ESG Comprehensive Support for Suppliers

KOEN plans to comprehensively support the development of ESG evaluation indicators customized for each industry and company, ESG training and competency diagnosis, on-site due diligence and consulting by applying the ESG standard guidelines for SMEs. In particular, 'Best ESG SME Certificate' is issued for suppliers with excellent compliance in ESG evaluation, and companies receiving the certificate will be provided with loan support from financial institutions and preferential interest rates, as well as additional points in the evaluation of KOEN's suppliers.

KOMIPO I Loan Support for Best ESG SMEs

KOMIPO is promoting a project to provide loan support and interest rate reduction for SMEs that have received domestic ESG evaluation or certification and showed excellent results in at least one of the environments(E), society(S),and governance(G) sectors. It is creating a culture to spread ESG management values throughout the value chain by making ESG self-inspection mandatory even for SMEs that have already received ESG evaluation and certification, before applying for loans to additionally determine whether they meet ESG excellence requirements.

ESG Competency Improvement

KOWEPO I ESG Consulting for Partners

KOWEPO conducts consulting business for ESG self-diagnosis and on-site inspection of partners to measure the level of implementation and performance in the fields of environment, human rights, labor, ethics, governance, and product service, and provide improvement reports based on the measurement results to partners. In 2021, ESG self-diagnosis and on-site inspections were conducted for a total of 30 partners, and improvement tasks were defined for partners with unsatisfactory results while best-performing partners were rewarded for their achievement.

EWP I ESG Management Conversion Training for SMEs

EWP provided the ‘ESG Management Conversion’ training course to 20 partners as part of establishing a win-win sustainable management system. Customized to SME suppliers, the courses covered the overall ESG management education contents, such as ‘ESG introduction and necessity’, ‘ESG report and data preparation/disclosure’, and ‘ESG evaluation response’. Korea East-West Power plans to expand customized support, including ESG report writing and ESG evaluation support, to settle ESG management of SMEs in the future.

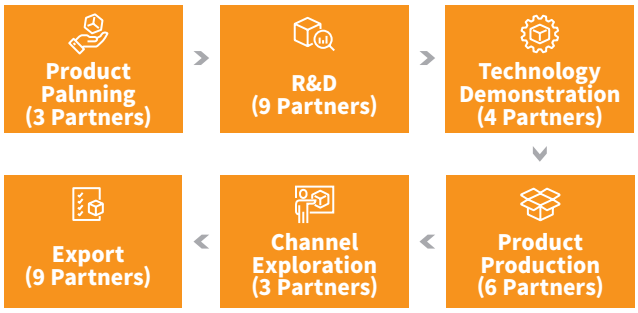
Supporting SMEs for Innovative Growth and Pursuing Shared Growth

Customized Support by Growth Stage

Advancement of SME Growth Support Model

KEPCO is establishing a 6-step support model for each business value chain of SMEs to drive innovative growth of SMEs. With participation of internal and external experts, we are continuously advancing the practical growth support system by analyzing the effect of SME support projects, integrating similar projects, and improving participation methods. In addition, by establishing support for carbon neutrality and new industries(smart factory construction, eco-friendly certification, etc.), we are strengthening competitiveness in the future energy industry based on growth support for SMEs.

SMEs Support by Value Chain(KEPCO)



Improvement of the Contract System for Mutual Growth

In order to support suppliers experiencing difficulties in securing liquidity in the wake of COVID-19 and the economic recession, the limit for advance payment has been increased to 80%, and it became mandatory to make the advancement payment within 5 days upon request. In addition, the 'subcontracting safeguard' was actively implemented to prevent overdue wages for workers and KRW 280.7 billion of wage was paid in a timely manner. In order to expand opportunities for new start-ups and socially disadvantaged companies to participate in bidding, track-records restrictions were abolished in bidding below a certain amount, and additional points were added for companies led by women, the disabled, and social enterprises. Also, in order to guarantee the rights and interests of subcontractors by strengthening the transparency of the contract process, the estimated price calculation system has been computerized, switching from handwriting to computer-based system in signing a private contract for the sale of unwanted/unused items and strengthened the prohibition on contact with retirees.

Supporting SMEs to Explore Overseas Markets by Utilizing KEPCO Brand

A KEPCO Trusted Partner(KTP) is an export promotion brand that has been certified by our company. We select excellent SME partners with overseas export capabilities and support their overseas marketing by granting them brand use rights. We publicly recruit manufacturers with a record of successfully supplying KEPCO with goods and services related to the power sector, and construction (service) companies that have carried out construction for us within the last three years. Currently, 126 companies are pioneering overseas markets using our certified brands. We prioritize KTPs when implementing various export support projects, such as export consultations and exhibitions, and provide opportunities to promote products using our export assistance portal.

Business Case **Signing「Caring Company」Agreement**

On September 30, 2021, KEPCO signed a business agreement with the Ministry of SMEs and start-ups and the Korea Electric Industry Promotion Association to systematically cultivate innovative companies in the new energy industry and spread ESG culture. Through the agreement, we are leading the project by setting specific goals, such as discovering 500 promising start-ups in the new energy industry by 2025 and donating KRW 5 billion in win-win cooperation funds every year by 2027. In accordance with the agreement, in 2021, 50 start-ups have been discovered and a support agreement has been signed, and initial funding of KRW 3 Billion has been provided. In addition, KRW 420 million was provided to 29 companies for the cost of certification by accredited organizations for suppliers ESG management expansion.

Caring Company Agreement Signing

* **Caring company** : As a "Voluntary Win-Win Cooperation Company" that shares its strengths and know-how with SMEs, it carries out growth support projects in coexistence and cooperation with SMEs, venture companies and small business owners.

R&D and Technology Transfer in Cooperation with SMEs

To respond the paradigm shift of the future industry and secure global market competitiveness, we are promoting SME capacity building support projects in various fields such as ‘Support for Start-ups in New Energy Industry’, ‘Implementation of R&D in Cooperation with SMEs’, ‘Productivity Improvement Facilities Building and Consulting’, ‘Support for On/Offline Marketing’, etc.

Support for Start-ups in New Energy Industry

KEPCO is discovering promising Start-ups in the new energy industry in various fields for mutual growth of the overall energy industry. For this, we are running diverse support programs on business start, technology development and sales channel exploration for 91 promising start-ups selected from the fields of ‘Energy Management IT Platform’, ‘EV Charging Service’, ‘Energy Storage Device Technology Development’ and 'Solar Energy System'.

Energy Industry start-ups Support

Promising start-ups support	91 Cases / KRW 4.5B
Local start-ups growth support	31 Companies

R&D in Cooperation with SMEs

KEPCO is defining and carrying out R&D tasks in cooperation with SMEs to strengthen SME capabilities. In particular, we actively support carbon neutrality in supply chain through cooperative R&D in the carbon-neutral and eco-friendly sector, and promote eco-friendly capabilities of SMEs. In addition, subsidy for eco-friendly certification costs is provided f or eco-friendly products launched with R&D of SMEs.

Achievement in Cooperative R&D

Defining and Implementing R&D task	20 Cases
SMEs annual sales	KRW 431.9B

Productivity Improvement Facility Building and Consulting

With the projects to support smart factory construction to implement computerization of process data for SMEs, introduction of factory operation systems and others, productivity of SMEs improved 45%. In addition, as part of supporting productivity innovation , product improvement and management consulting were provided, and through t his, improvement was witnessed in indicators such as defect rate.

Productivity Improvement

Support smart factory building	19 SMEs
Support Productivity Innovation	15 SMEs

Support for Carbon Neutrality Experts Education

To support SMEs to implement carbon neutrality and strengthen their future competitiveness, we provide online educational contents. In collaboration with a specialized organization(Hunet), ESG and energy efficiency categories are added on「KEPCO Partner's e-Academy」, an online education website for executives and employees of SMEs, and KRW 1 Million subsidy is provided for the tuition per course.

Education Support Expansion

Educational Contents	· Export channel and R&D Management, business skills + ESG·Energy efficiency
Education cost	KRW 1 Million MAX per course

Social and Economic Promotion

Support for Sales Increase

KEPCO is promoting various activities to help social economy enterprises to stand on their own through sales increase. In the domestic market, we cooperated with on line s ales channels and marketing companies to hold sales exhibitions and live home shopping for products of social economy enterprise, and provide consulting and help them land on the offline store platforms based on the analysis on online sales. In overseas markets, we support the development of new online and offline sales channels, and provide consulting services to strengthen product competitiveness for social economy enterprises planning for overseas production or other overseas business plans . In addition, by introducing a non-face-to-face direct market system that sells agricultural and special products of social economy enterprises to KEPCO employees, KEPCO purchased agricultural and special products worth KRW 370 Million from 67 companies nationwide. With these various sales channel development activities, a total of 108 companies witnessed a 55% increase in average sales.

Competitiveness Building

To improve the competitiveness of social economy enterprises, KEPCO is supporting business management software and homepage development/renewal for companies lacking ICT infrastructure. In addition, we provide opportunities for capacity building to employees of the companies, such as education on SNS marketing, essential software use, and field trips to companies showing great performance. With the activities for competitiveness enhancement, a total of 10 social economy enterprises received ICT support, and about 100 employees received capabilities improvement training.

Market for Mutual Growth

Support for Sales Channel Expansion for Social Economy Enterprises

Regional Energy Industry Eco-System Establishment

New Energy Industry Innovation Ecosystem and Nurturing Innovative Companies Establishing

KEPCO is working on the creation of an ecosystem for innovation in the new energy industry in collaboration with local governments, energy innovation companies, and KENTECH to build new growth engines for the future and secure the competitiveness of the Korean energy industry. We plan to carry out 38 implementation tasks in three directions: establishment of a regulation free zone for the new energy industry demonstration, establishment of a global industry-academy-research R&DB platform, fostering of innovative venture companies and new business models.

Targets	**Establishing Innovation District for New Energy Industry by Building a Regulation-free City**		
3 Strategic Projects	**1 New Energy Industry Demonstration**	**2 Global Industry academy-research R&D Platform building**	**3 Building an Ecosystem for sustainable mutual growth**
38 Implementation Initiatives	• 114 initiatives including MG infra building, VGI technology development, grid connected VPP, and mid/long-term ESS, etc.	• 14 initiatives including ultra power laser, high-power semiconductors, super conducting technology center building, etc.	• 10 initiatives including eco-friendly equipment incentives, data sharing platform, smart logistics enter, etc.
' 22 ~ ' 23 Direction	**• (Software)** - Revision of the Regulation-free Zone Act - Solidarity and cooperation with stakeholders - Mechanism building	**• (Hardware)** - Industry-academy-research R&D cluster building - Demonstration test-bed, R&D equipment sharing/ opening	**• (Venturing)** - Innovative Companies/ Start-ups Becoming Growth Engine - KENTECH VC establishment R&D equipment sharing/ opening

1. Regulation-free Zone for New Biz Model Verification and Technology Demonstration

KEPCO is working on the creation of a regulation free zone to lay the institutional foundation for free demonstration and verification of the new energy industry. Through communication with various stakeholders , including private companies and start-ups, we will build a consensus on the need to revise related laws and regulations, and promote the enactment and revision of laws to create a demonstration ecosystem for new energy businesses.

2. Building Intra including Demonstration Lab and Industry-Academy-Research Cluster

KEPCO aims to create a n infrastructure for an innovation ecosystem of the new energy industry, building a cluster of industry-academia-research innovation player s an d se curing of demonstration capabilities centered on KENTECH. We are planning to establish a platform to build a demonstration test-bed for new energy technologies and jointly utilize research equipment from nearby research institutes. In addition, by promoting the creation of an industry-academy-research institute cluster, we are laying the foundation to create synergies among r elated research institutes.

3. Innovative Enterpriser Venturing to Create New Growth Engine

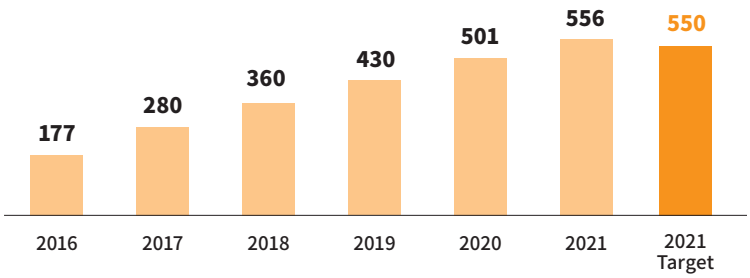
KEPCO is supporting innovative venture firms to secure new growth engines , improve operational efficiency, and discover new technologies and markets. We plan to discover and nurture innovative companies and expand strategic investment in companies with original technologies for sustainable mutual growth through cooperation between KEPCO and innovative companies, rather than providing charity support.

Building Energy Valley

KEPCO built 'Energy Valley' to create a future growth ecosystem centered on new energy businesses and contribute to balanced national development, and is supporting companies in the Energy Valley to secure independent competence and competitiveness. Energy Valley is aimed to create a Global Smart Energy Hub by attracting new energy business companies and research institutes in Gwangju and Jeonnam innovation cities and nearby industrial complexes. With Energy Valley, KEPCO is working on the projects such as 'Incubation of High Value-added Start-ups', 'Nurturing Manpower Focusing on Job Competency', 'Promoting R&D in Cooperation with Industry, Academia, and Research Institutes', and 'Activities to Support Companies' through the energy valley.

To implement the carbon neutral policy of the government in 2021, a working-level consultative body was formed with local governments and related organizations to select companies in specialized fields and discover start-ups with an aim to attract strategic companies focusing on specialized fields. Also, continuous efforts were made to laid the foundation for sustainable growth of those companies with the establishment of an industry-university-research cooperation system and R&D infrastructure. A total of 56 companies joined, including 2 mid-sized companies, 1 large-scale investment, and 43 companies specializing in carbon neutrality such as renewable energy and hydrogen, and support for the capacity building was provided for 133 companies through 9 cases of cooperation with SMEs and research projects, 50 technology transfers, and 55 demonstrations.

Companies Joining Energy Valley(Cumulative)



Achievements in Attracting Companies to Energy Valley

- Attracting Companies 556 Companies
- Investment Amount 2.7 Trillion
- Job Creation 12,000 Jobs

High Added Value Strat-Ups Incubation

Discovering start-ups in high value-added fields with robust growth possibilities and potential, we operate differentiated programs for each stage of start-ups incubation. It includes the programs to strengthen growth support mentoring, establish a follow-up support system, and activate open lab operation.

Job Competency-oriented Manpower Development

In order to nurture energy convergence experts, we are building and operating a training system for field-oriented technical manpower, academic credit-linked training for professionals, high-quality personnel in R&D, and customized education system for current employees.

Industry-University-Research R&D Establishment

We are collaborating with government agencies, universities, and research institutes and energy valley investors to plan and carry out technology development cooperation in new energy industry, power equipment, ICT-based power industry, and DR/EE(response to demand and energy efficiency) industry.

Support for Energy Valley Investing Companies

KEPCO is establishing a real-time network to support the early settlement of energy valley investing companies, and providing support to handle difficulties of these companies. With a differentiated support strategy depending on the progress in settlement of the investing companies, we are striving to maximize the effectiveness of these support strategies.

Establishment of Gangso R&D Special Zone

Gangso R&D special zone is a new R&D model that fosters small-scale and high-density research complexes by designating special R&D zones centered on key technology institutions located in the region to secure momentum for the innovative growth of regional bases through science and technology. The Energy Valley has been designated as the Korea's first public corporation-type Gangso R&D special zone in August 2020, with KEPCO serving as a core technology institution. Gangso R&D special zone, via the linkage of the KEPCO New Energy Technology Research Center and KENTECH, promotes the commercialization of technologies developed by companies and institutions joining Energy Valley, as well as intensively supporting technological start-ups such as research lab companies and companies developing state-of-the-art technology. As such, it is contributing to growing Energy Valley into a hub of the new energy industry.

Plan for Cultivating the Gangso R&D Special Zone

Energy Technology Business Hub
- Short-term : High efficiency PV power plant O&M, next generation ESS
- Mid-term : Fuel cell, hydrogen energy, wind power,
- Long-term : EV, superconductivity, energy platform, EMS engineering ESS

Public Corporation-type Technology Business Model Development
- Government : Ministry of Science and ICT, R&D Special Zone Promotion Foundation
- Technology Institutions : KEPCO, KEPCO New Technology Research Institute
- Local Governments : Jeollanam-do, Naju City

Promoting Innovation Leader;s Danamics/Diversity
- irtuous circle of Energy Valley among Innovation Cluster-Hub Institutes-Research Institute-Business Speciality Institute

S&T Ecosystem Building driven by Regional Players
- Partner Vendor, BIXPO
- KEPCO, Group Companies
- Innovation Cluster, Energy Valley, Innovation City Public Agencies

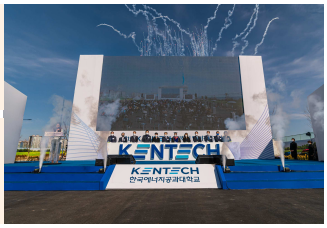
KENTECH* Opening

The government, local governments, and KEPCO joined hands to establish KOREA INSTITUTE OF ENERGY TECHNOLOGY, an energy-specialized university, to lead carbon neutrality, innovate university education, and seek balanced regional development, in the face of a turning point in the global energy industry. In March 2022, KENTECH opened to nurture future energy research and global energy leaders. Under the vision of 'Joining the Group of Top 10 engineering university in the energy sector by 2050', KENTECH will nurture energy leaders with outstanding research capabilities, entrepreneurship, and global citizenship, and will build a global energy hub based on cooperation between industry, academia, and research institutes for innovation and balanced development in Jeollanam-do and Gwangju City.

Objectives of KENTECH Foundation

Nurturing Global Energy Leaders to Drive Clean Future at a New University

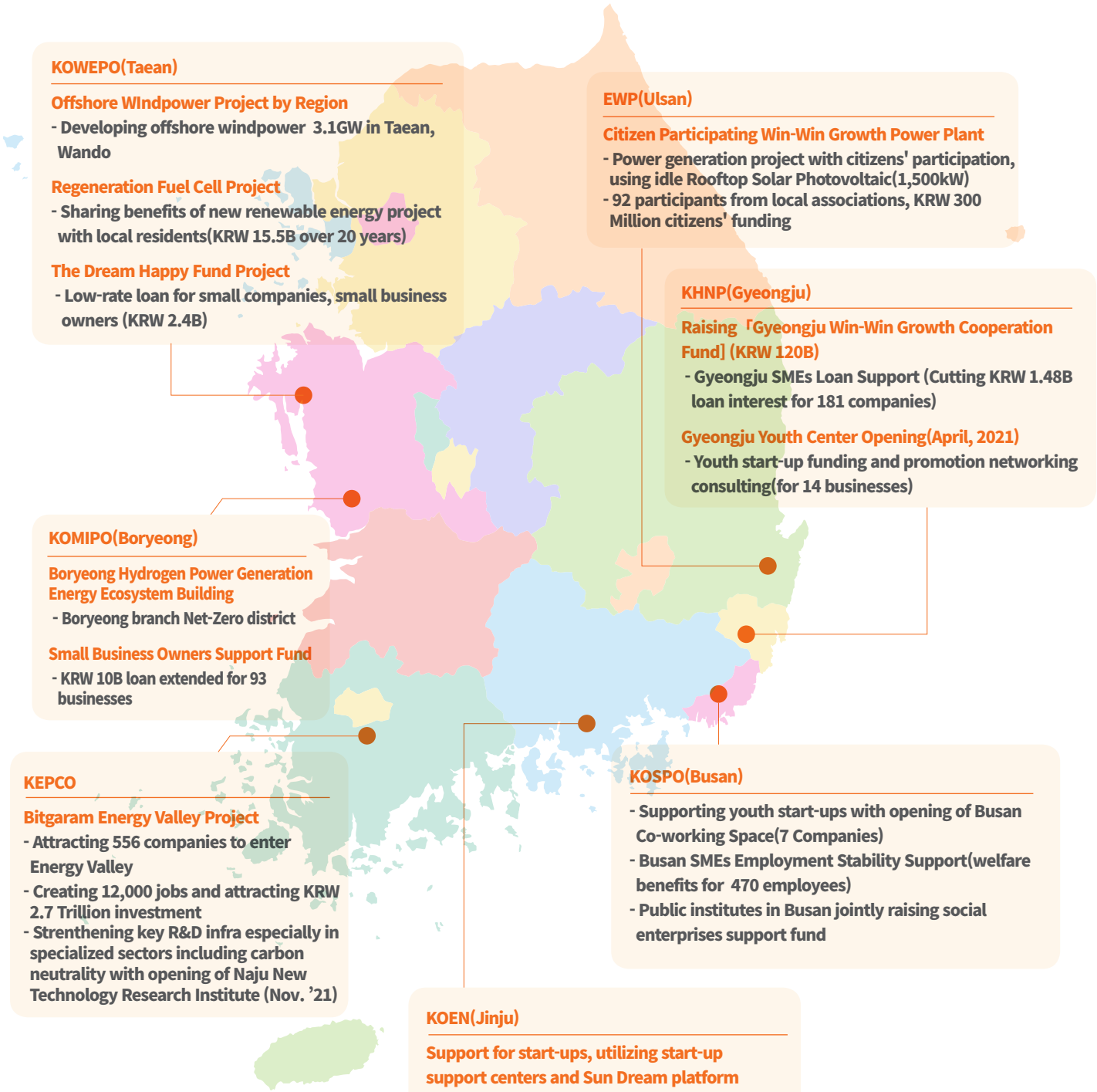
Education	• Running program to nurture talents capable of solving problems on their own through open education • Educational programs to promote field-based learning and collaborative communication
Research	• Research in 5 key areas of energy AI, new materials, next generation grid, hydrogen, environments/climate • Leading state-of-the-art research with establishment of world class large facilities
Business Start-up	• Building global energy ecosystem for sustainable growth in connection of education-research-business start-up • Research achievements in energy sector, students' start-up promotion
Cooperation	• Promoting global companies, talents, capital attraction and clustering led by KENTECH • Building R&D Zone, Energy Venture Zone, Industry-Academy-Research Cooperation Zone



* KENTECH : Korea Institute of Energy Technology

Group Companies Growing along with the Region

KEPCO and group companies are implementing regionally based win-win growth projects led by the headquarters and branch offices across the country. Based on cooperation with local governments and residents, we are revitalizing the local economy and contributing to win-win growth with local communities and balanced national development.



KOWEPO(Taean)

Offshore WIndpower Project by Region
- Developing offshore windpower 3.1GW in Taean, Wando

Regeneration Fuel Cell Project
- Sharing benefits of new renewable energy project with local residents(KRW 15.5B over 20 years)

The Dream Happy Fund Project
- Low-rate loan for small companies, small business owners (KRW 2.4B)

EWP(Ulsan)

Citizen Participating Win-Win Growth Power Plant
- Power generation project with citizens' participation, using idle Rooftop Solar Photovoltaic(1,500kW)
- 92 participants from local associations, KRW 300 Million citizens' funding

KHNP(Gyeongju)

Raising 「Gyeongju Win-Win Growth Cooperation Fund] (KRW 120B)
- Gyeongju SMEs Loan Support (Cutting KRW 1.48B loan interest for 181 companies)

Gyeongju Youth Center Opening(April, 2021)
- Youth start-up funding and promotion networking consulting(for 14 businesses)

KOMIPO(Boryeong)

Boryeong Hydrogen Power Generation Energy Ecosystem Building
- Boryeong branch Net-Zero district

Small Business Owners Support Fund
- KRW 10B loan extended for 93 businesses

KEPCO

Bitgaram Energy Valley Project
- Attracting 556 companies to enter Energy Valley
- Creating 12,000 jobs and attracting KRW 2.7 Trillion investment
- Strenthening key R&D infra especially in specialized sectors including carbon neutrality with opening of Naju New Technology Research Institute (Nov. '21)

KOSPO(Busan)

- Supporting youth start-ups with opening of Busan Co-working Space(7 Companies)
- Busan SMEs Employment Stability Support(welfare benefits for 470 employees)
- Public institutes in Busan jointly raising social enterprises support fund

KOEN(Jinju)

Support for start-ups, utilizing start-up support centers and Sun Dream platform
- Selecting 19 start-ups and local development of gas turbine parts

Safety/Disaster/Security Response System

KEPCO and group companies are striving to strengthen the safety and health management system and establish a thorough accident prevention system with the strong commitment of the CEOs of each company. We set Environment·Health·Safety as the top priority values for management and established the EHS management policy stating 'Safety management is the highest priority value that cannot be compromised in corporate activities', and make sure all employees comply with it. Also we are disseminating the EHS management policy to suppliers and business partners and actively communicating for them to join the move.

Group companies Expanding Safety-related Investment

Safety Budget

KRW 7.876 Trillion executed

* 14% up from 2020

Disaster Prevention SOC Establishment and Management Budget

KRW 27.1 Billion executed

* 3.7% up from 2020

Labor Cost for Dedicated Workforce

KRW 200.7 Billion UP YoY

* 16% up from 2020

Group companies Risk Assessment Conducted

No. of Places Conducting Assessment

374 Places

Improvement Completed

12,823 Cases

Improvement Measures Adopted

12,985 Cases

Improvement Activities Implemented

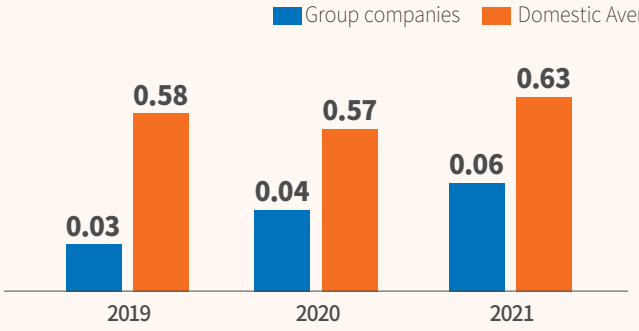
162 Cases

KEPCO and group companies are working hard to prevent major disasters and accidents by maintaining, supplementing, and innovating the disaster/safety/health management system, and to realize a culture of putting priority on life and safety together with partners. In order to improve preemptive crisis management qnxduTMrl, we are building an integrated monitoring system to identify the situation fastly and accurately by crisis type, such as storm and flood damage, power supply emergencies, and cyber attacks, and strengthening response capabilities to minimize damage and enable rapid recovery in the event of a disaster.

Group companies Accident Rate

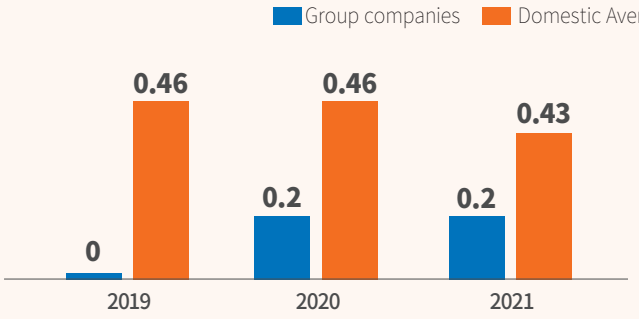
Group Companies Accidents Rate Vs. Domestic Average

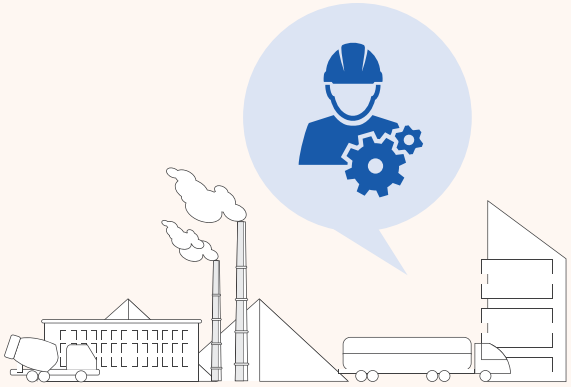
(Unit : %)



Group Companies Death Toll Vs. Domestic Average

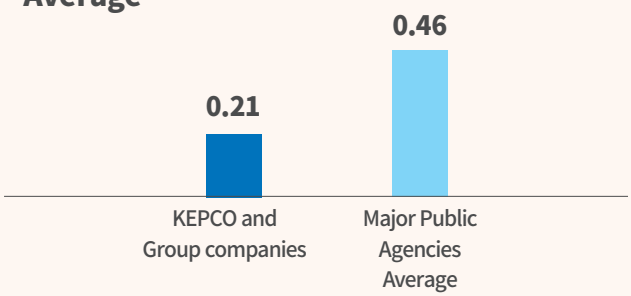
(Unit : ‰)





Accidents Rate in Ordered Construction Vs. Public Agencies Average

(Unit : %)



Safety/Disaster/Security Response System

01

People/Field-oriented Safety Priority

Implementation of Measures to Eradicate 3 Major Disasters

Implementation of preventive measures based on analysis on three major disaster factors(electrocution, fall, crushing and jamming) immediate removal of direct hot lines mandatory hill start assist device for work vehicles, total ban on work at heights (pole climbing, etc.)

Digital-based Safety Accident Prevention

AI video analysis system, real-time risk factor identification using IoT-based safety devices and drone-based inspection of transmission lines and structures.

KEPCO **Safety Manager for Power Distribution Line Construction**

Dispatched to Entire company

Group companies **Safety Management Staff**

Increase 8.9%

02

Internalizing Safety/Health Culture

On-site training for employees and partners

Development of field-oriented customized education programs for employees and partners, establishment of safety education venues and platforms such as safety schools and safety experience halls

Expansion of Labor-Management Joint Safety Management

Labor-management joint on-site inspection to improve the working environments, with prevention of workers damage and safety management of workplaces and finding areas for improvement through TF operation.

Group companies **Performance of Safety Training for Employees**

648,639 Hours

Group companies **No.of Participants Receiving Safety Education**

46,856

03

Preemptive Response to Disasters

Reinforcing Disaster Response System

Establishment of an early warning system combining power plant operation information and AI technology to predict disaster situations or unexpected breakdowns in advance

Stable Power Supply during Disasters

Specialized prevention activities for disasters around power generation facilities, simulation drills for disaster response systems to check the results of disaster response training and measures to be taken

KEPCO **MOIS Safety Management**

Top Rated

KEPCO **Inspection on Facilities Vulnerable to Disasters**

302,059 Place

04

Cyber Security and Accident Prevention

Strengthening Cyber Security System

Introducing specialized security solutions for power generation control, transmission and substation, and distribution, supplementing the technical response system for cyber attacks exploiting vulnerabilities in telework and remote work

Cyber Security Awareness and Capacity Building

Boosting employee awareness on activities to effectively respond to personalized cyber attacks, securing information security experts, and continuously upgrading training courses for capacity building

KEPCO **MOTIE·PIPC Evaluation**

Top Rated

companies **NO. of Cyber Security Breach Incidents**

Zero

Realization of a Safe Workplace

Safety & Health Management System

Environment, Health, and Safety(EHS) Management Policy

As a leader in the electric power industry, KEPCO presents environmental/health/safety management policies to achieve sustainable corporate development based on respect for human and to realize a clean and safe society. Under the Environment, Health and Safety(EHS) management policy, we are actively promoting activities to prevent damage from industrial accidents and improve safe working environments for employees and workers of partner companies.

Transition to Safety/Health-oriented Management

For paradigm shift in power business to 'Worker's life and safety first, and from efficiency to safety', KEPCO is doing the utmost to establish 'A prevention-oriented safety system through safety and emergency management led by CEO' and 'Healthy worksite with participation of all workers with regulations and procedures improvement.'

CEO-led Safety-oriented Management

KEPCO operates the Safety Steering Committee led by the management once a month, and promotes safety management activities for office heads aligned with personnel evaluation. At the same time, to eradicate serious accidents, we adopt a bottom-up measures to reflect the voices of workers in the field and operate accident prevention TF. In 2021, 75 on-site safety inspections by CEO and management and 52,972 labor-management joint safety inspections were conducted, and on-site safety management was strengthened, assigning one safety manager to each construction site.

Safety Regulation and Procedures Revision

We have amended safety-related regulations and procedures to establish a field worker-oriented safety management system and establish a safety-first organizational culture. In particular, obligations of suppliers were adopted such as submitting a voluntary safety pledge, establishing safety improvement measures, adopting one-strike out in the event of a fatal accident, and imposing penalties for noncompliance, while expanding support for the employment cost of safety managers at suppliers. We also strengthened support and authority, for example stipulating the provision to exercise the right to suspend work when the manager sees possible risk.

Safety and Health Management System Building

KEPCO has established a safety and health management system to implement Environment/Health/Safety(EHS) management policy, and is making every effort to continuously manage safety and health risks and improve performance. Headquarters, offices, affiliate power companies, and other group companies establish safety and health action plans, identify risk factors, facilitate safety and health promotion activities, evaluate safety and health activity performance, and prepare improvement measures based on performance analysis in accordance with the safety and health management system. We are running PDCA (Plan, Do Check, Action) process. In addition, KEPCO acquired third-party certification(ISO 45001, KS Q ISO 45001, etc.) for safety and health management systems for each office, power generation subsidiary, and other group companies in consideration of safety and health-related laws and regulations, market conditions, and industrial characteristics or promoted review of the safety and health management system by nurturing internal inspectors.

Safety and Health Management Certification

As of Dec. 31, 2021

Company	Certification	Scope
KEPCO	• ISO 45001	• Headquarter and 21 offices (Including 3 overseas offices)
KHNP	• ISO 45001, KOSHA-MS	• Headquarter and 15 offices
KOEN	• ISO 45001, KOSHA-MS	• Headquarter and 5 offices
KOMIPO	• ISO 45001, KOSHA-MS	• Headquarter and 7 offices (KOSHA-MS has 2 offices)
KOWEPO	• ISO 45001, KOSHA-MS	• Headquarter and 4 offices
KOSPO	• ISO 45001, KOSHA-MS	• Headquarter and 7 offices
EWP	• ISO 45001	• Headquarter and 5 offices

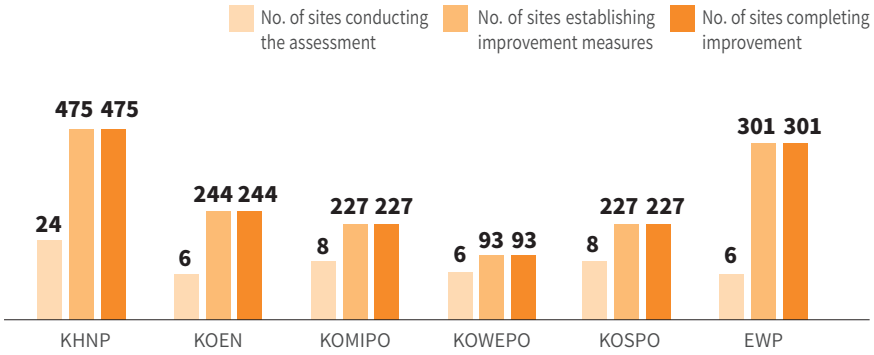
Conducting Risk Assessment

KEPCO is conducting regular and ad-hoc risk assessments to set safety measures, identifying risk factors in the workplace in advance and establishing and managing procedures to safely operate and maintain facilities. In accordance with Article 36 of the Occupational Safety and Health Act and Article 15 of the Guidelines for Safety Management of Public Institutions, regular evaluations are conducted for all business sites, and improvement measures have been established for the risk factors identified through these evaluations. In addition, the results of risk assessment are reflected in the safety management activities and evaluation on the performance of safety culture practices of business sites, and a risk assessment management system has been established for systematic management on the status and statistics of the evaluation results for each business site.

KEPCO Risk Assessment

No. of sites conducting the assessment	316 Sites
Improvement measures established	11,418 Cases
Improvement completed	11,256 Cases
Improvement activities executed	162 Cases

Group Companies Risk Assessment As of Dec. 31, 2021



Customized Safety and Health Education

KEPCO runs compulsory 'Safety Education'(950 courses) in all training courses for employees, and in particular, organizes 'Safety-specific Training'(13 courses) within the curriculum directly related to safety. We provide e-learning contents to renew awareness on safety culture of partner companies and in-house employees, and conduct separate safety training for high-risk workers. In addition, special training on safety leadership, such as safety management policies and on-site safety inspection tips, is conducted for business site managers, and a mobile version of a construction site safety guide e-book customized to the site is provided and distributed to strengthen expertise in safety and health.

Campaign to Boost Safety Awareness

In order to boost the autonomous safety culture of employees and partner companies, KEPCO and partners are promoting the 'Voluntary Safety Culture Certification', to select excellent workplaces based on evaluation on the performance of industrial accident prevention activities. In addition, along with the implementation of the 'Around-the-year Suggestion System' to gather ideas, posters, and slogans to prevent safety accidents, the 'Work Suspension Request System' and the 'Industrial Accident Reporting Center' are opened. KEPCO is also continuously promoting activities to internalize safety culture, with periodic promotion of safety culture and posting of industrial accident prevention methods on online platforms.

Customized Health Management Service

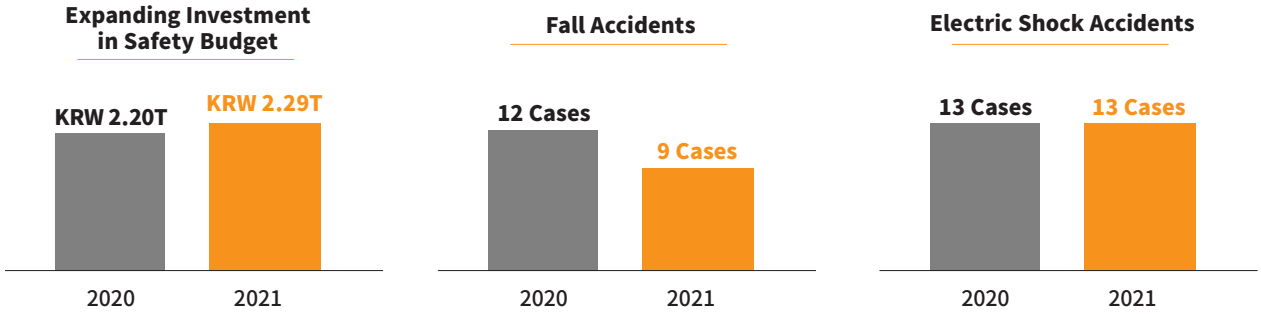
On top of the annual health checkup and the results sharing for employees, big data-based health management system has been adopted to provide statistics on health risk signals such as diabetes, blood pressure, and obesity, and managing checkup items with a graph showing the health trend. In addition, as a preemptive health management measure, employees who turn 36 are added to get the special life cycle medical checkup, and the risk factors likely to cause musculoskeletal disease during live wire distribution work are investigated to establish improvement measures.

Regular Education to Internalize Safety Culture

Safety education within employee training curriculum	20,313 Employees
Providing safety-related e-learning contents	1,007 Partner Companies
Separate safety education for workers allocated to risky work	1,188 Partner Companies

Establishing Comprehensive Safety Management Measures

In December 2021, comprehensive safety management measures for 'Safety First, Work Later' were adopted and implemented to eradicate the three major accidents. To prevent electric shock accidents, direct live wires were immediately removed, and indirect live wires were adopted and the practice of power outages during the work was expanded. To prevent jamming accidents, it has become mandatory to install anti-jamming devices for work vehicles and check whether they are installed through remote monitoring. In addition, to prevent fall accidents, workers riding on the pole was completely prohibited and a steel tower fall prevention devices were installed in all areas. As a result of these efforts, the three major accidents decreased by 66% compared to 2020, and the total number of industrial accidents decreased by about 19%.



Transmission and Substation Safety Management

KEPCO is strengthening preventive measures to achieve Zero major accidents, such as falls from heights and accidents due to lack of safety measures. For this purpose, KEPCO developed a fall prevention safety device to ensure safe move in the upper part of the machine, and removed the risk of tower falling and fall accidents, adopting safety clamp to remove possible cause of fall. In addition, work and safety experts are inspecting the site to detect blind spots and come up with improvement plans, providing improvement measures for 132 cases detected in each area in 2021 . We are also implementing smart field safety management, adopting facial recognition-based substation access control system, monitoring on harmful and dangerous situations, and automatic risk detection and alarm system.

Safety Management in Distribution Work

Surveys on work environments were conducted to prevent electric shock accidents, and safety construction methods and tool improvement plans were defined from idea contests. Based on this field information , KEPCO is accelerating the conversion to safer construction methods, and in 2021, achievements were made in six joint developments including replacement of suspension insulators, application of safety construction methods to 70% of the total construction methods through expansion of safety construction, and reduction of tool weight by 20% through adoption of lightweight work tools, etc. In addition, we are actively conducting activities to prevent possible falls accidents while working on electric poles and jamming accidents while operating work vehicles.

Safety Management in Overseas Projects

KEPCO has successfully completed the construction of UAE Unit 1, the first nuclear power plant exported, based on its technological and business management capabilities. As it shifts from construction to operation, we adopted a world-class safety management program to respond to evolving accidents types and risks. Team Korea–Team UAE joint safety campaigns were held four times a year, and joint safety inspections by management were conducted 52 times a year. In particular, special safety inspection on electric shocks and fall accidents were conducted to prevent 247 accidents likely to happen. From August 2017 to June 2021, the UAE nuclear power plant project achieved 100 million accident-free hours.

Comprehensive Safety Management Measures

Special Safety Inspection on Construction Site by CEO

KEPCO-Electricity Work Vendors Discussion on Industrial Safety

Special On-site Safety Inspection in Strengthened Labor-Management Partnership

KEPCO is running a Special Safety Management Committee led jointly by Vice Presidents of Safety & Business, Management Support and Power Grid. And planning to organize a TF of 130 members in 8 divisions to adopt 'special measures to eradicate safety accidents.' At the same time, executives and employees of the headquarters and 251 offices across the nation are working together to achieve zero accident. In addition, the management is allocated with the business site across the nation to conduct on-site 'Safety Inspection' under his/her supervision as parts of efforts to establish around-the-year on-site inspection system.

We are also striving to spread the safety culture, providing a comprehensive training for the workers from suppliers and in-house employees engaged in high-risk work, including 1,188 suppliers, 1,176 representatives, and 5,839 workers. In addition, by conducting a survey of 2,808 field workers, we are promoting field-oriented safety management activities such as improvement of working environments for field workers.

KOEN I Risk/Hazardous Factors Detection and Improvement

KOEN is working to identify and improve harmful and risk factors throughout the entire process. On aregular basis, the company is improving the on-site environments through joint tour inspections and joint safety and health inspections with the Safety and Health Council When placing orders, the company listens to workers opinions on site improvement, and are strengthening risk assessment before starting work, safety level improvement guidance during work, and risk assessment feedback after work. Also, post-evaluation is also being conducted, such as awards for achievement of safety management goals and activities to discover and promote hazards and risk factors in the field. Through these activities to improve safety, Korea South-East Power has achieved zero serious accidents for three consecutive years.

Risk/Hazardous Factor Detection and Improvement Process

Everyday		・Safety and Health Council, joint tour inspection, etc.
Placing Orders		・Securing on-site safety by listening to workers' opinions
While Working	Before	・Evaluating and managing work risk review by supervisors
	In Progress	・On-site guidance for accident prevention and training for partner companies
	After	・Reflection of hazardous and risk factors assessment
In Evalution		・Rewards for meeting safety management goals

KHNP I JSA-KGNP Development

KHNP developed a unique risk assessment model(JSA-KHNP) by supplementing the functions of the existing P-D-C-A cycle to strengthen the effectiveness of risk assessment for major disaster risk factors. Work hazards and risk environments around the workplace were described in detail to enable accurate risk assessment, and work safety analysis techniques were used to improve efficiency in identifying risk factors. In particular , the risk assessment reviewers and approvers can utilize a checklist to ensure a review without omission in objective perspectives. In addition, essential check items have been strengthened to be reviewed by supervisors before starting work, and a post-performance evaluation checklist has been added to ensure continuous improvement of the risk assessment process.

KOSPO I Strengthening Cooperative System for Safety Management of Vulnerable Workers

KOSPO defined the roles and responsibilities by job and position at the company, by establishing safety management standards for all stages from order placement to completion, and established management standards for high-risk work likely to lead serious accidents. Also, it conducted work safety risk assessments led by partners to make sure that workers could directly identify and recognize risks, and adopted a computerized collaboration infrastructure system for all stages of safety work procedures, from request for work, planning and permission, to review and approval. The company analyzed 17 cases of crane and forklift accidents that occurred at five power generation companies to designate the targets for hazardous equipment management, and establish management standards to take the lead in preventing safety accidents for workers engaged in special tasks.

In addition, the company is running a safety innovation school together with its partners, adopting safety competency mentoring for small-scale suppliers, and developed a mobile risk reporting app, and conducted preliminary safety competency review and safety management implementation level evaluation for suppliers to create a sustainable safety ecosystem. Based on these efforts, the company achieved zero serious accidents over the past four years and earned the 2nd grade (the highest level among 98 institutions) in the public institution safety rating system of the Ministry of Strategy and Finance.

Risk Assessment Model(JSA-KHNP) Improvement Areas

Accuacy	・Details in occupational and surrounding hazardous environments
Convenience	・Easy to develop, using work safety analysis techniques
Formalization	・Checklist-based, objective review
Tracking	・Possible to check safety measures by supervisor before work
Adding Functions	・Continuous improvement of risk assessment process

Disaster Management System

Disaster Management Master Plan 2.0

KEPCO turned the existing system into an integrated disaster management system in preparation for the emergence of new disasters and disasters growing up and becoming more complex. By upgrading the Disaster Management Master Plan 1.0 focusing on compliance with existing laws, we established Master Plan 2.0, an integrated disaster safety management system in preparation for the era of carbon neutrality. For the establishment of the disaster safety management system master plan 2.0 ISO 22301, the international standard for Business Continuity Management we conducted analysis on the existing disaster management master plan implementation status, performed diagnosis of disaster management level by experts and defined vulnerability through company-wide surveys and interviews.

4 Strategies of Disaster Management

Implementation Strategy	Direction
Strengthening Core Competences	Improving disaster response capability through various trainings following government policy and conducting random training, mobile training, etc.
Business Continuity	Increasing management efficiency by switching to 'Functional Continuity Management' that integrates Business Continuity Management and Excellent Companies in Disaster Reduction
Field Operability	Enabling optimal judgment on disaster situations in the field, by improving the system to acquire company-wide image information
Cooperation & Communication	Joint use of disaster response resources and joint training and reinforcing response capabilities with establishment of a collaborative system and consultative body

Preemptive Preparation for Extreme Weather Conditions

To preemptively prepare for the continuous occurrence of extreme weather, KEPCO added a forecasting system on the disaster response system centered on Prevention-Preparation-Response-Recovery to strengthen the efficient use of disaster response resources and capabilities. The forecasting system reinforced disaster response capabilities by integrating various disaster information on earthquakes, typhoons and others to predict the expected area and scale of damage, so that disaster recovery and response resources are promptly invested in advance. In addition to the forecasting system, efforts are made to make continuous improvement in prevention activities including strengthening of design criteria for adaptation to climate change and introduction of IoT diagnosis technology, response activities such as improvement of mobile app functions for disasters monitoring and reimbursement management, and recovery activities including operation of a wide-area recovery support system using resources such as manpower and equipment.

Special Inspection on Power Facility

KEPCO preemptively prevents large-scale disaster factors through safety management by facility and period, and conducts intensive inspections of power facilities during the times of vulnerability to prevent safety accidents and strengthen the stability of power supply A preemptive self-diagnosis of safety measures was conducted at 54,000 locations during the thawing season and dry season(February-April). In addition, in preparation for heavy snowfall and cold snap in winter(December-February), thermal insulation facilities were installed and inspected, and in summer(June-September), in preparation for typhoons and heavy rain, special inspection was conducted to prevent possible soil loss and drainage facilities damage

Preemptive Self- Safety Diagnosis

- February-April (thawing season and dry season)
- Internal inspection despite National Safety Inspection postponed due to COVID-19
- No. of location inspected 54,000 locations

Special Inspection in Winter and Summer

- Dec.- Feb.(Winter), June-Sep.(Summer)
- Major substation facilities, protection facilities and fire preparedness facilities, line connection, power tunnel disaster prevention facilities, etc.

National Safety Inspection

- Sep.-Oct.
- Self-inspections : 29,000 locations
- Public-Private joint inspection: 14 locations(outdated power tunnels, large retaining walls, etc.)

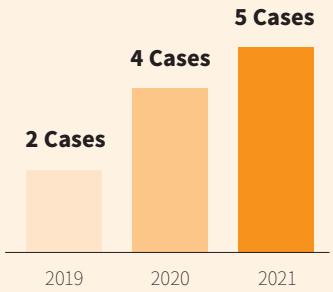
Prevention of social disasters by strengthening the safety of distribution facilities in preparation for extreme weather

Implementation Strategy	Direction	Achievement
Large-scale Fire Prevention	• Reducing the No. of automatic re-deploy of circuit breakers for fire prevention (3 → 0 to 2 times) • Stop redeploy in operation for 4800 lines, 7300 circuit breakers	Rate of redeploy stopped 23%p ↑ No fire from facility failure
Responding to Dryness and Strong Wind	• Installation of overhead insulation cable (251km), tree trimming (54,000 trees), etc. • Expansion of the wind speed observation system in the areas of strong wind in east coast (50 → 186 places)	Blackout from strong wind and contact with trees decline 31%
Rapid Recovery From Typhoon Damage	• Installation of overhead insulation cable (251km), tree trimming (54,000 trees), etc. • Expansion of the wind speed observation system in the areas of strong wind in east coast (50 → 186 places)	Time for remote control of wide area black out decline 40%
Disaster Response	• Development of real-time video monitoring system for disaster site - Connecting CCTV of public institutions including the National Police Agency (96 locations)	Fast response when typhoons Chantu' and 'Ohmys' landed

KHNP I E-Tower Surveillance Advancement

KHNP's E-Tower is equipped with 24/7 remote monitoring and early warning functions, serving as a comprehensive control tower capable of prompt response in an emergency at a nuclear power plant. E-Tower had change monitoring and comparative analysis functions to detect equipment abnormalities at an early stage when a nuclear power plant is restarted, and thereby immediately detects signs of fire, prevents the expansion of equipment damage, and enables prompt fire response. Also, by applying the indices representing the soundness of operating variables of nuclear power plants by reactor, turbine, electric power, power plant control system, etc., it can detect the cause of soundness reduction accurately, and immediately recognize abnormal conditions of all control rods by establishing a heavy water reactor monitoring program. E-Tower monitoring function is being advanced to prevent stoppage of nuclear power plants in advance.

No. of Stoppage Prevented with Monitoring Advancement



EWP I Disaster Management Capability Improvement

EWP is advancing its disaster management system to strengthen initial response and recovery capabilities. By establishing an integrated system at the Ulsan Headquarters, the company strengthened disaster response capabilities for key national infrastructure, and purchased 29 items including satellite phones to establish a national disaster safety net that can be used even when the private communication network is separated, for the first time as a power generation company. In order to overcome the difficulty in grasping the on-site situation in the event of a disaster such as fire, the company established and operated a real-time disaster safety monitoring system using drones, and enabled remote response to crises with accurate understanding of the on-site situation. As a result, it was selected as an excellent institution in the 2021 National Core Infrastructure Disaster Management Evaluation hosted by the Ministry of Trade, Industry and Energy.

KOWEPO I Disaster Prevention and Management Improvement

KOWEPO is striving for achievement of zero disaster accidents by operating a regular disaster prevention system with disaster safety inspection and information sharing. Systematic safety inspections are conducted throughout the year to remove harmful and risk factors and prevent predictable risks in advance. In addition, through the 'Disaster Response Alert App' using the meteorological information measured at power plants , the company is strengthening on-site response capabilities by providing customized crisis alerts and response tips for each disaster situation, such as strong winds, storms, heavy rain, and heavy snow, in real time. In particular, safety diagnoses are conducted on facilities vulnerable to fire and explosion accidents, and risk improvement activities are implemented based on the results.

Disaster Inspection and Measures around the Year

Spring (Mar.~May)	· 45 repairs including opening cracks
Summer (June~Aug.)	· 51 repairs including rainwater drainage
Autumn (Sep.~Nov.)	· 65 measures including fixing of facilities
Winter (Dec.~Feb.)	· 71 improvements including pipe replacement

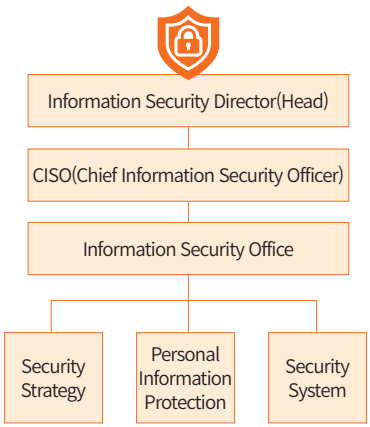
Cyber Security and Personal Information Protection

Information Security System

KEPCO is establishing and strengthening an information security management system to protect the national power grid from cyber threats getting increasingly intelligent and targeted.

The company-wide information security system is managed by the Chief Information Security Officer(CISO), with more than 20-year experiences in information security technology, and CISO is prohibited from holding concurrent positions other than information security. There is s separate information security office under the CISO and the office identifies risk factors and areas of vulnerabilities, posing treats to KEPCO's information security, and prepares countermeasures against risk situations caused by external attacks or large-scale disasters. Information security activities and performance of all departments other than the information security activities and performance of all departments other than the Information Security Office are reflected in the internal performance evaluation, and disciplinary standards for information security violations of executives and employees are established to take personnel measures such as disciplinary action in case of violation.

KEPCO Information Security Division



Spreading Information Security Culture

KEPCO encourages the active participation of management and employees across the company to strengthen the information security system and spread the information security culture. Adopting 'Basic Information Security Guidelines' to define step-by-step response procedures to information security threats that all executives and employees can access and read and at the same time, KEPCO established information security training plan to boost awareness of executives and all employees and provide customized practical training related to information security. In addition, trainings are provided for employees to respond to external attacks such as DDoS and to swiftly respond when business systems are at risk of information security.

KEPCO is operating a reward system for employees showing excellent performance in information security to create a work culture in which employees can autonomously detect, report, improve, and receive feedback on information security vulnerabilities, rather than providing one-way education for employees. In 2021, a total of 122 information security vulnerabilities were identified by executives and employees, and 50 executives and employees were for detecting and making improvement on critical security vulnerabilities. As a result of these efforts, KEPCO has achieved 'Zero information security incidents', 'Actively participation in cyber security contests by government agencies and achieving the highest score(1st place in the contest by the National Intelligence Service and by MOTIE)'.

We are running security review procedures for cyber assets and information security systems at all times, and implementing specialized education and training to nurture cyber security experts. Also, we have established an information security management system in accordance with laws and regulations, and received regular inspection by the government agencies to prevent and respond to cyber attacks and threats.

Establishment of an information security management system responding to the latest cyber threat environments

Stage	Threat	Responding Measures
Prevention	• Lack of security standards for power ICT new technology	• Establishment of new technology use base with wireless and IoT security standards • Replacing security facilities, removing vulnerable software
Detection	• Growing security risks to national infrastructure • New threats, Limitation in detecting and analyzing to 20,000 cases	• Strengthening inspection on malignant code on data connection between transmission and substation • Expanding analysis targets and reducing required time by expanding AI security control
Response	• Insufficient countermeasures against large-scale DDoS attacks • Discovering top-level vulnerabilities such as Log4j	• Cooperation with telecommunications companies , an advance blocking system using security equipment • Immediate measures by issuing a crisis alert and operating an emergency response team
Recovery	• No security control vacuum in case of disaster/accident	• Establishment of the 2nd cyber safety center in Daejeon

Personal Information Protection System

To cyber security threats and personal information leakage risks in rapid digital transformation, KEPCO has established and implemented guidelines for personal information protection and internal management plans, and registered the current status of personal information files to Personal Information Protection Commission and thoroughly manage them.

KEPCO has designated a director and manager in charge of personal information protection, and is implementing technical and managerial measures to protect personal information centered on the department in charge of personal information management. For safe personal information protection, business network and Internet network are separated and identification information encryption is applied, and a pseudonymous information processing system is introduced to strengthen the verification on the use of personal information and the pseudonymization process.

Every year, inspection and guidance on the 1st-tier and 2nd-tier business are conducted at least once a year, and the inspection results are reflected in the internal evaluation to strengthen the personal information protection. Even when consigning personal information processing tasks, we make sure that personal information is thoroughly protected from the time of the contract signing to termination with training of the consignee, receiving a security pledge, and confirming the destruction of personal information.

Personal Information Leakage

0 Cases

The **Best** in public corporation

personal information management for 7 consecutive years

Life Cycle Protection of Personal Information

We have developed a 「Life Cycle Management Model for Personal Information」 to collect store, provide and destroy personal information to keep strengthening personal information protection. In order to prevent personal information leakage from remote work, we have strengthened the identity verification process when accessing company information networks with adoption of biometric authentication and exclusive mobile network. In addition, KEPCO is applying company-wide document encryption(DRM) and inspection of personal information in PCs to prevent personal information leakage. Also, to minimize financial risks from personal information leakage, we purchased personal information protection liability insurance

Gathering

Application of security protocol and collecting minimum information when signing up for membership on homepage, etc.

Storage

Comprehensive inspection of 19 sites including internet search portal sites and homepages

Provision

Establishment of personal information pseudonymization system, strengthening standards for provision of data using DRM

Destruction

Complete inspection of personal information in PC, destruction of 11.9 million unnecessary personal information

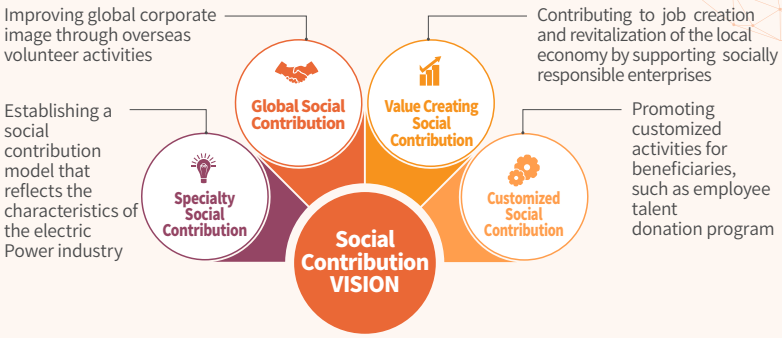
Building a joint response system for cyber threats by strengthening external cooperation in the electric power sector

Cooperation Area	Backgrounds	Implementation
SME Security Service Support	• Cyber attacks and damages are growing targeting SMEs with insufficient security investment capacity	• Providing security consulting and attack detection services for 24 SMEs
Practical Joint Training	• Strengthening inspection of the response system with cyber attack and defense training	• Joint training with 11 institutions including the National Intelligence Service, electric power companies, and universities
Participating in Global Cyber Training	• Participated in NATO cyber security drills as a Korean representative in cooperation with the National Intelligence Service	• Acquiring advanced technology including global cyber attack response system, training method, etc
Joint Response to Cyber Treats with Relevant Institutions	• Maximizing cyber threat responding capabilities	• Sharing about 3,700 cases of threat information with related organizations, self-analysis and provision of 238 cases of cyber threat information

Strengthen the Social Safety Net

Corporate Social Responsibility

KEPCO and group companies, as the nation's largest public enterprise group responsible for Korea's electric power industry, have established a mission of 'A creative and hopeful energy company dreaming of tomorrow' and created social values through social contribution activities in various fields throughout the country. We will fulfill our social responsibilities for a global company by carrying out systematic and continuous social contribution activities with support for energy-related SMEs and cooperation with local communities.



Group companies **Donation Made**

KRW 124.3B

Employee Volunteer Work

Corporate Social Responsibility

Fulfilling Social Responsibility with Volunteer Work

KEPCO and group companies reach out to the neighbors in need while emphasizing with neighbors who are in the blind spot of welfare system. We strive to faithfully fulfill our corporate social responsibilities with various volunteer activities such as love for neighbors love for culture, love for the environment, and disaster relief.

Group companies **Annual Volunteer Work Hours**

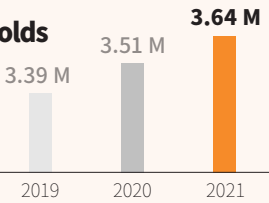
169,960 Hours

Creating Job-Related Social Value

KEPCO and group companies are striving to fulfill corporate social responsibility as a global energy leader by establishing a social contribution model to reflect the characteristics of the electric power industry. We are carrying out social contribution activities to promote energy welfare targeting various classes including small business owners, economically vulnerable groups, and SMEs economically hit hard by the spread of COVID-19. Going forward, we will do our best to strengthen the social safety net to reduce the public burden and eliminate welfare blind spots.

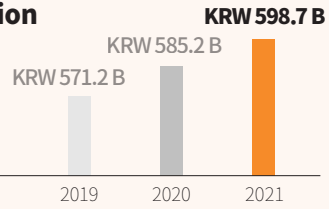
KEPCO No. of households receiving electricity bill cut

3.64 Million Households



KEPCO Value of electricity bill reduction

KRW 598.7 Billion



KRW **122B** reduction
730,000 Households

KEPCO Electricity bill reduction for small business owners bit by COVID-19

KRW **9.96B** reduction
33,000 Cases

KEPCO Extending electricity bill payment deadline for socially vulnerable group

KRW **28B** reduction
37,000 Cases

KEPCO Postponing power cut and exempting deposit for small business owners on the brink of business closing

Strengthen the Social Safety Net

Direction of Social Contribution Activities

KEPCO and group companies are conducting four major social contribution activities: 'Energy Welfare', 'support for the socially Support for the Socially Vulnerable', 'Win-Win Cooperation with Local Communities', and 'Disaster Relief Activities' to carry out social contribution activities in a systematic way. KEPCO will build a virtuous cycle for mutual growth with the vulnerable and local communities through continuous social contribution activities, and present a role model as a representative public energy institution in Korea

Energy Welfare

With the belief that everyone should be able to enjoy the basic right to energy, KEPCO is operating various energy welfare support programs.

Sharing Energy with Love

KEPCO and group companies provide benefits for the low-income group , who could not pay electricity bills and be more vulnerable in the extreme cold or extreme heat. In addition , we are running various energy welfare programs including support for the elderly living alone aligned with energy saving campaigns.

KEPCO Sharing Energy/Briquette with Love

6,689 Households

Energy Welfare

Support for the Socially Vulnerable

With support for the vulnerable, we are eliminating welfare blind spots and strengthening the social safety net.

Job Creation for the Vulnerable

KEPCO and group companies are supporting job creation to help the vulnerable stand on their own feet.

Support for the Socially Vulnerable

KEPCO Job Creation for the Vulnerable

137 Persons

Win-Win Cooperation with Local Community

As a member of the local community, we are conducting various activities to solve local problems and seek mutual growth with local residents.

Purchasing Products Made by the Severely Disabled

KEPCO and group companies are purchasing products made by the severely disabled to help create jobs for the disabled and ensure stable income.

Group companies Purchasing Products Made by the Severely Disabled

KRW 49.6B

Win-Win Cooperation with Local Community

Disaster Relief Activities

Disaster Relief Activities

We are providing various support to relieve the pain of those affected by disasters and help them return to their daily life.

Support for the Victims of East Coast Forest Fire

Immediately after the wildfires in Uljin/Samcheok broke out, KEPCO employees from all over the country visited the forest fire sites and participated in the firefighting work. Also, KEPCO and group companies jointly donated KRW 1 billion in disaster relief funds to support recovery from forest fires along the East Coast.

Group companies Donation to East Coast Forest Fire Relief Fund

KRW 1B

Group companies Volunteer Work for Firefighting

750 Employees

Social Contribution Activities

Direction of Social Contribution Activities

Social Contribution Strategies

In order to fulfill its social responsibilities for a global company, KEPCO has laid the groundwork for strategic social contribution activities, redefining the social responsibility management vision and implementation system and reorganizing activities that have been temporarily/sporadically implemented. KEPCO is conducting systematic and continuous social contribution activities to become a company loved by the citizens, and by establishing a virtuous cycle for shared growth with the underprivileged and local communities, we are set to present a role-model for social contribution. KEPCO will make continuous efforts to create a sustainable future where everyone can coexist through socially responsible management.

Vision

Creative and Hopeful Energy Company Dreaming of Tomorrow

Strategic Direction

1 Specialty Social Contribution	2 Customized Social Contribution	3 Value Creating Social Contribution	4 Global Social Contribution
Setting social contribution models reflecting the characteristics of the electric power industry	Focused support for vulnerable groups such as multicultural families Customized services for beneficiaries with the talent donation system	Laying foundation for the underprivileged to stand on their own through social enterprise support Maximizing synergy by combining job creation and contribution activities	Boosting corporate image with volunteer work abroad

UN SDGs

주요활동

• Sharing energy with love • Installing solar power for farming community • Boosting energy efficiency in rural areas	• KEPCO Social Volunteer Corp. • Customized welfare for residents in rural areas • Win-Win cooperation with fishery communities	• Support for sales channels in domestic market • Support for sales channels in overseas markets • Support for funding	• College students volunteer corp. • Eye Love Project • ODA

KEPCO 119 Disaster Relief Team

In October 2010, KEPCO established KEPCO 119 Disaster Relief Team, the only professional rescue organization among public enterprises in Korea, with the power facility operation and maintenance infrastructure and professional manpower in safety, disaster, and service fields across the country. KEPCO 119 Disaster Relief Team is operated in six regions across the country, and each region has the unit of lifesaving, medical support, and on-site support. In preparation for outbreak of large -scale internal and external disasters, we are strengthening our expertise in rescue and emergency services by regularly conducting basic lifesaving training and professional education and demonstrating our excellent rescue and first -aid capabilities, participating in national events as a medical support team, typhoon damage recovery support, and underwater purification activities.

KEPCO 119 재난구조단

Major Scholarship Electrical Engineering Students

KEPCO selects scholarship students among prospective graduates from undergraduate and graduate students majoring in electrical engineering, based on a comprehensive evaluation of school grades, social contribution activities, and income level, and provides school tuition and study grant for one year. For scholarship students majoring in electrical engineering, KEPCO employees serve as mentors to provide opportunities for 'KEPCO Mentoring' where they can learn knowledge on their major, convergent thinking, challenging spirit for the future, consideration and empathy through interactive communication. KEPCO is set to nurture key talents in the new energy industry through the program for electrical engineering major scholarship.

Scholarship Awarding to Electrical Engineering Majoring Students

Solar Power Pilot Project for Farming Community

KEPCO has expanded eco-friendly renewable energy and implemented a solar power pilot project generate income outside of farming work for local farmers. In particular, we signed a business agreement with Taean-gun, Chungcheongnam-do for joint development of solar power generation projects implemented pilot projects using the Rural Community Win-Win Cooperation Fund, secured REC(Renewable Energy supply qnxduTMrl) weights, and conducted activities for revision of laws and systems including amendments to the Farmland Act. In addition, permission for electricity generation and facility installation are carried out, and the profits generated from these activities will be used for community development.

KEPCO-Taean MOU for Farming Community Solar Power Projects

KHNP I Safe Streetlight Installation

KHNP installed safe streetlights in areas mostly the vulnerable and the group of lower financial independence living and showing higher crime rate. A total of 2 434 safety streetlights were installed in 52 regions across the country over the past eight years, with 339 additional units installed in 10 regions including Hapcheon. With installation of solar and hybrid eco-friendly streetlights , the crime rate slide down by about 30% and KRW 600 million of electricity cost savings were achieved.

Safe Streetlight Installation and Lighting Ceremony in Dong-gu, Incheon

KOWEPO I Smart Farm Project Using Hot Water

KOWEPO is contributing to increasing the income of local farmers by promoting a smart farm project that utilizes warm water from power plants. Korea Western Power's smart farm project is the first Korean-style smart farm demonstration complex using warm water drainage, and has completed the localization of core technology for agricultural products cultivation using the warm water drainage system. In the future, the company plans to expand the project scale with demonstration of the test crop cultivation technology, and expects to increase income and create new jobs for farmers

Smart Far, using Warm Water Drainage

EWP I Upcycling Research Center

EWP is supporting the 'Upcycling Research Center' selling waste plastic upcycle products as part of the Green New Deal social contribution leading model with business expansion. While supporting the process, the company created added value by recycling resources and created jobs for local senior citizens(28 people). Also, as part of supporting activities, the company installed a waste plastic bottle cap collection box and held an 'Upcycling Art Exhibition'

Waste Plastic Upcycling Products

Create Quality Jobs & Improve Employee Satisfaction

KEPCO and group companies are carrying out various personnel management activities to discover and attract talented people with excellent technologies and capabilities, and are continuously expanding socially equitable employment to seek inclusive growth. We provide equal opportunities for education and promotion for all and create a corporate culture to achieve work and life balance.

Group companies Job Creation

We promote sustainable growth of the company by discovering talented people, and are leading inclusive growth by addressing youth unemployment with expansion of socially equitable employment.

Total No. of employment in 2021

2,047

Percentage of talents in Non-Seoul Metropolitan Area

61.2%

Percentage of High school Graduate Talents

14.1%

Percentage of Women Talents

28.3%

Group companies Talent Nurturing

In order to secure future business competitiveness, we operate talent development programs in new growth areas such as new energy business and overseas business, and strive to prevent the outflow of outstanding talent.

Per Employee

92.62 Hours

Total Hours of Education

2019	2020	2021
4,671,852 Hours	4,039,582 Hours	4,583,727 Hours

Total Cost of Education

2019	2020	2021
KRW 118.19 Billion	KRW 102.79 Billion	101.17 Billion

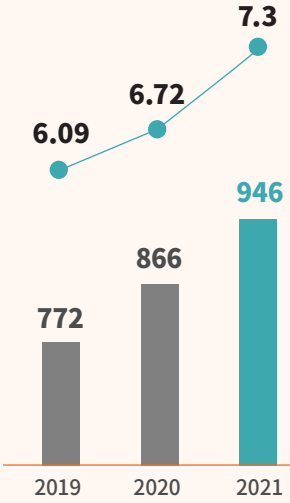
Group companies Expanding Diversity

In addition to expanding female employment, we nurture excellent female leaders by strengthening female talent capacity, and operate a work-family balance program to ensure a stable settlement in organizations.

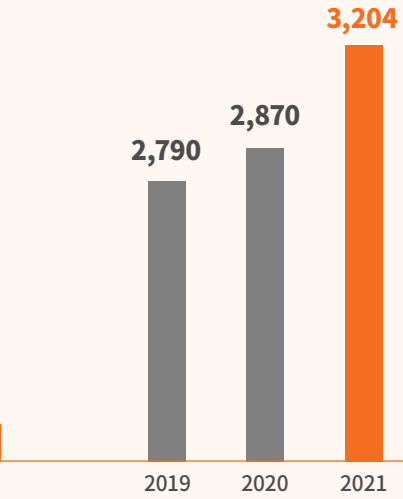
Percentage of Women Manager

7.3 %

No. and percentage of Women Managers



No. of employees using Maternity Leave and Childcare Leave



Childcare Leave

1,513 Employees

Maternity Leave

1,691 Employees

Group companies Resetting Corporate Culture

In order to strengthen organizational dynamism and productivity, we are implementing systems to improve corporate culture and increase employee satisfaction.

Percentage of Voluntary Turnover

0.82 %

No. of Employee Detecting

2019	2020	2021
402 Persons	355 Persons	406 Persons

No. of Turnover

2019	2020	2021
0.84 %	0.73 %	0.82 %

Strategic Personnel Management

Human Capital Capacity Building

Establishing Talents Development Plans

KEPCO established a talent development plan to respond to environmental changes, and defined three major directions for capacity building: 'Nurture experts in core fields'. 'Strengthen innovation capabilities by position', and 'Spread a culture of learning while working'. We opened master's and doctoral courses and professional training courses both internally and externally and held the KEPCO Energy Leaders Forum. In addition, we are nurturing experts in core fields by establishing the Junior Board Innovation Expedition and the MZ generation Net-Zero Board, and operating the 'Accumulation Time(8h/week)', a self-directed immersion learning program.

Achievement in Talent Nurturing

* Based on KEPCO

Nurture Experts in Core Fields	Strengthen Innovation Capabilities by Position	Spread a Culture of Learning while Working
Master's and Doctoral Courses **115** Employees	Nurturing **107** Energy Policy Experts	**1,807** Employees participating in self-directed immersion learning
Internal/External Export Courses **137** Employees	**262** Employees participating in Junior Board Innovation Expedition	**28,425** Employees participating in book learning program

Customized Training to Forster Future Generations

KEPCO is strengthening the job competency of future generations by providing job mentoring and OJT consulting for new employees based on the 'MZ Generation Cultivation Master Plan'. In addition, we are striving to strengthen our global capabilities through non-face-to-face overseas benchmarking and master's course education in new growth areas, and established the 'HR Innovation Advisory Group' to engage the MZ generation in company policy improvement. Lastly, we are providing future-oriented education, introducing a 'Blended Learning System' that combines e-learning with practices and discussion.

Directions for Future Generation Nurturing

* Based on KEPCO

MZ Generation Cultivation Master Plan	HR Innovation Advisory Group	Blended Learning System
2,407 Employees participating in Job Mentoring	**28** Teams, **120** Employees participating on Corporate Policy Improvement	**15,184** Employees participating on learning programs
15 Employees applying Master's course education in new growth areas	**9,145** Employees participating in Vision Mentoring	**13,756** Employees participating on Customized e-learning

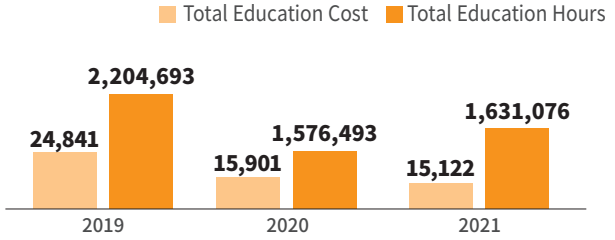
ESG Management Expert Nurturing and Education

As the importance of corporate sustainability and ESG management is growing, ESG-related training was newly introduced for employees and stakeholders to increase the understanding of ESG management among all executives and employees and to boost awareness.

Sustainability Education Areas

Carbon Neutrality	•New growth areas including carbon neutrality •Building a system for expert nurturing •Expanding the areas of professional certificate acquisition
Safety Social Value	•(Safety) Support for acquiring professional license •(Mutual Growth) Energy Valley workforce nurturing
Labor-Mgmt Relations, Ethical Management	•(Professional) Competency enhancement including doctorates in labor •(Ethics) Improving ethics awareness across the company

Employees Education Status (Unit : KRW Million, hours)



Education cost per employee KRW **649,338**

1Education hours per employee **72** hours

Talent Recruitment

Strategic Talent Recruitment

KEPCO is making continuous efforts to improve the quality of employment and hire talents that meet the demands of the field. We recruited 1,051 new entries by expanding our hiring capacity, discovering jobs in new business areas and securing additional quotas. In addition, the specialized fields were further subdivided(36 → 53), including new fields such as industrial safety and offshore wind power, and the research fields in research category were also subdivided(24 → 55), resulting in the number of people hired in specialized fields was expanded from 59 to 122, compared to the previous year.

In addition, KEPCO is reflecting ESG-related questions during job interviews to hire talent with a high level of understanding and awareness of ESG. KEPCO plans to strengthen its strategic talent recruitment in line with the management strategy and goals.

Data Analysis-based Recruitment Process

KEPCO verified the feasibility of the recruitment process based on HR big data analysis for efficient data-based human resource management, breaking away from the traditional HR management method. The HR Analytics organization was newly established to reinforce the manpower of experts in the field of information statistics. Based on this, the optimal operation plan for HR management will be analyzed including analysis on recruitment time and scale, personnel transfer, promotion and leave qnxduwntpdy, and the HR data integration platform will be established and further expanded in 2023.

Expanding Occasional Recruitment

KEPCO introduced a real-time management system of the gap between the required and current workers for efficient manpower management. By maximizing new recruitment through occasional recruitment through real-time comprehensive analysis of the gap between the required and current workers, we expanded the number and size of recruitment. Individual monitoring was conducted for groups frequently using leave of absence, and precisely prediction was made based on the number of people scheduled to take leave or return to work in real time. After reflecting this in the recruitment plan, we were able to manage the gap between required and current workers efficiently with recruitment in a timely manner.

Efforts to Convert to Full-time Position

KEPCO strived to prevent inappropriate non-regular employment in advance by introducing the pre-screening system, which was fully revised and began to be applied in earnest 2020. As a result, the number of term-based workers continuously decreased, declining 29 people in 2021. In addition, dispatched workers were converted to regular workers at three group companies, and support for management stabilization was made by improving the working conditions of workers converted to regular workers and operating a joint task force between the parent company and affiliates.

*3 Group Companies : KEPCO MCS, KEPCO FMS, KEPCO CSC

Job Creation for the Youth

KEPCO is making continuous efforts to create jobs for the youth. First of all, 97 additional quotas were added through job discovery in new industries to expand recruitment capacity, and 122 new entries were hired in specialized fields by expanding recruitment in specialized fields where young people have strengths. As a result, 94% of new hires were from the younger generation, resulting in a total of 986 full-time employees.

In addition, to expand opportunities for youth internships, 10 job areas suitable for youth internships were discovered, and office and electrical work fields were selected separately to provide experiences highly aligned with actual jobs.

Achievement in Youth Job Creation

Youth job creation	2,779
Hiring the youth in full-time positions	986
Youth Internship	1,793
Experience-oriented internship participants becoming full-time employees	140

Regional Recruitment

KEPCO is actively recruiting and nurturing talents from non-metropolitan areas and population-relocated areas to build a win-win and fair employment ecosystem to grow together with the region. First, through the operation of the local professional employee system, it pursued stable operation of local offices by making it mandatory for employees to work in the region they applied for, for 10 years. Local business offices require manpower with high local knowledge and long-term employment, so the ratio of local experts is set at 50-60%, and the duties for local experts are expanded, such as Level 4 civil engineers and Level 5 drawing managers and with these efforts, we achieved 57.1% of the talent recruitment from the non-metropolitan area.

Preferential System for the Underprivileged

KEPCO is continuously improving the system to increase job accessibility and job support opportunities for the underprivileged. With consulting and support agreements with the Korea Employment Agency for the Disabled and introduction of limited competitive employment for the disabled , the number of full-time employees with disabilities increased 90% compared to the previous year(42 people in 2021), and 177 interns with disability were hired. For persons of national merits and low-income households, KEPCO hired them for 80 jobs with a preferential system such as special recruitment for veterans and exemption from document screening. In the case of multicultural families and North Korean defectors, a preferential system was newly established to give 5% additional points in the first-round document screening. In addition, we hired 195 high school graduates by providing qualification acquisition training and converting to full-time positions for high school graduates.

Performance Management and Compensation

Introducing the Total Quota for Performance Evaluation Indicators

To address the difficulty of executives and employees concentrating on core tasks, due to the increase in basic indicators among performance evaluation indicators and the burden of evaluation on evaluators due to the increase in the number of indicators, the performance evaluation indicator total amount system was introduced to create an environment where competencies can be concentrated on core tasks. did. The total quota of performance evaluation indicator system sets the limit for the total number of performance evaluation indicators and take out the same No. of existing indicators as new indicators are introduced. KEPCO defined the optimal number of indicators by analyzing key indicators such as government evaluation, management goals, and key tasks, and evaluates the appropriateness of indicators such as business contribution, representativeness, rationality, reliability, and controllability to institutionalize the total quota for indicators.

As a result of the analysis on performance evaluation indicators in 2021, four new indicators, including the public procurement priority purchase rate, were newly introduced, and the lower four indicators for adequacy evaluation, such as distributed power generation DB accuracy, were abolished.

Introduction of 360° Multi-dimensional Evaluation

KEPCO has advanced the job evaluation system by introducing a 360° multi-dimensional evaluation with both superiors and colleagues participating. The 360° multi-dimensional evaluation involves the participation of various stakeholder groups , including HR experts such as professors, labor attorneys, and management consultants who have knowledge and experience in overall KEPCO business, and labor union leaders and union members for the horizontal evaluation method for each job unit and management and participation of supervisors including the management and co-workers, for a vertical evaluation at each organizational level. By reinforcing the evaluation of supervisors and co-workers who have a detailed understanding of job descriptions in organizational units, fairness and internal acceptance of personnel management and job evaluation systems have been improved. In addition, we secured a connection between job evaluation and job grade through rolebased job grade redesign, and improved the completeness of job evaluation by promoting job reorganization and advancing job description components. KEPCO's job analysis and evaluation system was selected as an 'Excellent Case of Job-centered Remuneration System Renewal in Public Institutions' by the Ministry of Strategy and Finance.

Establishment of rational organizational/ individual performance evaluation system

Organization		Individual	
1st organization Evaluation (HQ/Branch)	2nd organization Evaluation (HQ Dprt./ Regional HQ	MBO (Achievement, capability)	360° Multi-dimensional Evaluation
• Introducing total indicator quota (Improvement)	• Strengthening indicator appropriateness evaluation (Improvement)	• Manager performance evaluation (Newly Added)	• Mobile utilization evaluation (Newly Added)

Performance-based Compensation System

KEPCO motivates its employees to actively focus on their work by establishing work-oriented management innovation and a fair performance-based compensation system. Compensation is differentiated according to effort and ability, such as task difficulty and importance, performance generated, improvement and others. In addition, employees who have created innovative achievements are rewarded with 'KEPCO Award', 'Technology Creativity Award', 'Integrity Manifesto', and 'Budget Reduction Achievement Fund' are rewarded. We also provide opportunities of education such as overseas master's and doctoral degree courses and benchmarking training, as well as domestic MBA and professional degree programs.

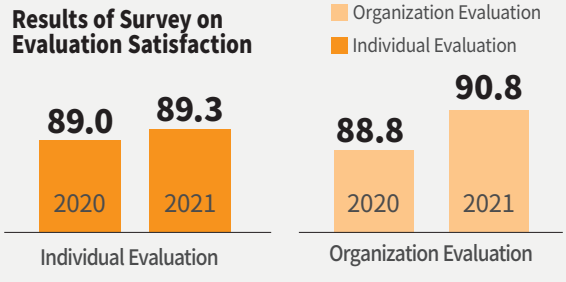
By strengthening the performance-oriented personnel system,executives and employees with excellent business capabilities or who have produced tangible results are actively promoted.

During 2021, 8 people making special contribution, such as HVDC construction and new technology development, were specially promoted. As part of the internalization of safety management, heads of business sites with unsatisfying safety and health activities are demoted to strengthen their sense of responsibility.

Job-centered, Reasonable Remuneration System with Labor, Management and Employees

KEPCO has decided to make efforts to convert to a job-oriented remuneration system through continuous communication with labor, management and employees. In relation to the job evaluation system, the ‘Remuneration System Renewal Council’ was established to build a labor-management communication network, and the ‘Job Evaluation Committee’ was organized to review overall matters in the job evaluation process. In addition, the ‘Wage Negotiation Committee’ was held to reach an agreement on the remuneration system between labor and management, while securing acceptance on the revision of the remuneration system through on-site wage briefings. Based on various efforts, such as expanding job compensation for important and avoided tasks by reflecting field opinions, we wee able to sign a wage agreement for the first time among the first-tier public corporations in 2021.

Results of Survey on Evaluation Satisfaction



* Converting a 10-point standard into a 100-point scale

Innovation in the Way We Work

Developing Scientific Job Evaluation Technique

We are resetting the R&R centered on core tasks by developing a job evaluation model that quantifies and analyzes job value and defines improvement plans. Non-core tasks were classified with comprehensive consideration of job value, importance, difficulty, required time, and overlap/distribution status, and the division of work was reestablished in consideration of functional changes by organization to improve non-core tasks.

Also, in order to establish a customized organizational system considering the workload difference by field conditions, the business offices developed a standard headcount quota model based on job-based workload analysis. With these measures, we have optimized human resources for each business location and build an organization meeting the work conditions of each business division. To assign talents to the right positions, we established personnel transfer standards tailored to site characteristics, such as disasters and facility failures, customer service and new business, customer management and power supply.

Work Environment and Infra. Improvement

KEPCO is innovating the way we work to improve work efficiency and productivity in line with the 52-workhours a week system. To reduce unnecessary time at work, such as traveling and waiting for collective face-to-face meetings and reports, video conferencing systems has been expanded, and non-face-to-face reporting using e-mail and messenger has been activated. In addition, in order to overcome the spatial limitations caused by the use of desktops and internal wired phones, infrastructure such as cloud, laptop, wireless LAN, and mobile phone has been reinforced. To prevent productivity, decline due to repetitive tasks, AI-based task automation(RPA) technology was expanded. With the introduction and use of ICT technology, work process has been simplified and automated, processing 920,000 repetitive tasks w-automatically and reducing 62,000 work hours a year.

Category	Previous	Improved
Innovate the Way We Work	• Collective and face-to-face meetings • Long waiting time for face-to-face reports	• Innovate meeting culture using video conferencing system • Encourage non-face-to-face reporting through e-mail and messenger
Build Digital Environments	• Work with desktop PCs • In-house wired phone(Fixed type)	• Build cloud, laptop, and wireless infrastructure • Introduce mobile in-house phone and secured messenger Power Talk
Automate Basic Repetitive Tasks	• 3 Cases including PPA business tax invoice payment, simplifying corporate credit cards settlements	• Automatic extraction of customer information to find indications of insolvency (auction/public sale), Expanding to 10 cases, including survey on the latest price of power equipment

Active Work Support and Eradication of Passive Administration

We have extended the application period for 'Active Duty Exemption', in which executives and employees are exempted from liability for partial procedural defects in the process of faithfully and actively carrying out their work to promote the public interest. In addition, executives and employees showing excellent examples of active duty exemption were rewarded and a case book was published and shared throughout the company. In order to eradicate possible infringe upon the rights and interests of customers or financial losses to the company due to passive behavior such as omission or neglect of duty by executives and employees, personnel management measures were strengthened when 'passive administration' was detected in the audit. To prevent this 'passive administration', we made preventive education mandatory for employees.

Business Case

Work Efficiency Improvement with Logistics Process Innovation

In order to resolve the issue of long-term unused materials due to manual material quantity billing, we reduced long-term unused in storage by establishing a management system for material requirement reconciliation and using the remaining materials for other construction projects. In addition, the material center operated by each regional headquarters was converted into an integrated logistics center , and material storage operations efficiency was increased, adopting mobile-based real-time inventory management and multi-level loading to improve space utilization.

Value of Long-term Unused Materials

Expected Impact **KRW 316B** saved

Value of Inventory in Storage

Expected Impact **KRW 11.3B** saved

Inclusive Corporate Culture for Friendly Working Environments

Promoting Human Diversity

Expansion of Female Talents

KEPCO is implementing a personnel policy seeking diversity and inclusiveness, represented by 'Recruitment of talented people without discrimination', 'Expanding positions based on ability', and 'Equal opportunities for promotion'. In order to fundamentally eradicate discrimination likely in the recruitment process, all stages of recruitment, including document screening and written screening, processed as blind recruitment and in articular, in the document screening process, female applicants are processed, considering the gender equality recruitment target system(20%).

Also, we have taken precautionary measures to prevent gender discrimination and disadvantage against applicants during the recruitment process, providing education on gender equality for job interviewers. In addition, KEPCO strengthened the band-range personnel evaluation system to prevent paternalistic performance evaluation based on seniority, and provided equal opportunities for promotion for female employees, recognizing the use of parental leave(3 years) as the years of service to prevent female employees from being eliminated from promotion due to parental leave. Through these efforts, additional female non-executive directors were appointed in 2021 and the company appointed the first female head of regional divisions, and witnessed women promoted to the Level 1 position.

Empowerment of Female Talents

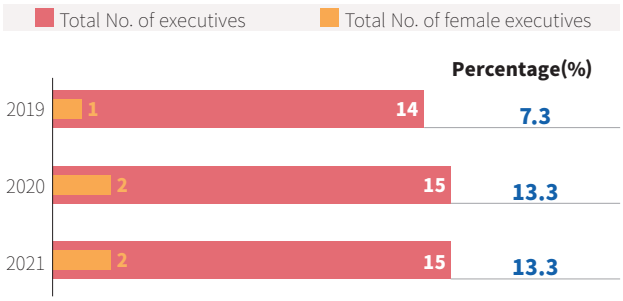
KEPCO is operating various capacity-building programs for female executives and employees to increase the number of high -level female managers. We operate 'Senior Manager Female Leaders Forum' to strengthen the policy capabilities of Level 2 female senior managers, such as business planning, and support participation in external communities such as 'WIN Conference ' to form a network with external female leaders. To enhance leadership competency for Level 3 managers 'Ewha Leadership Course' and 'Female Executive Class ' are operated, and 'Vision Mentoring' and 'Job Mentoring' courses are operated to help the Level 4 female employees acquire job competencies to provide opportunities to design future career in relation to individual duties and visions. As of 2021, we supported 22 female employees in master's and doctoral degree courses, 62 in professional certification courses, and 12 in language courses to strengthen their capabilities

Achievements in Fostering Female Workforce and Maternity Protection

Category	2020	2021	Up/Down
Master's/Doctoral Degree	17	22	+29.4%
Professional Certification	623	62	-
Language Course	-	12	New

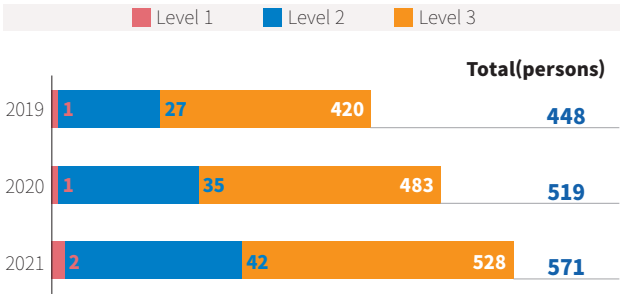
Female Executives

*Those on leave, suspension included



The Current Status of Female Managers

*Those on leave, suspension included



2020 2021 * Based on KEPCO

Percentage of females employees in Level 4 recruitment	Key Positions*	Percentage of Female Managers

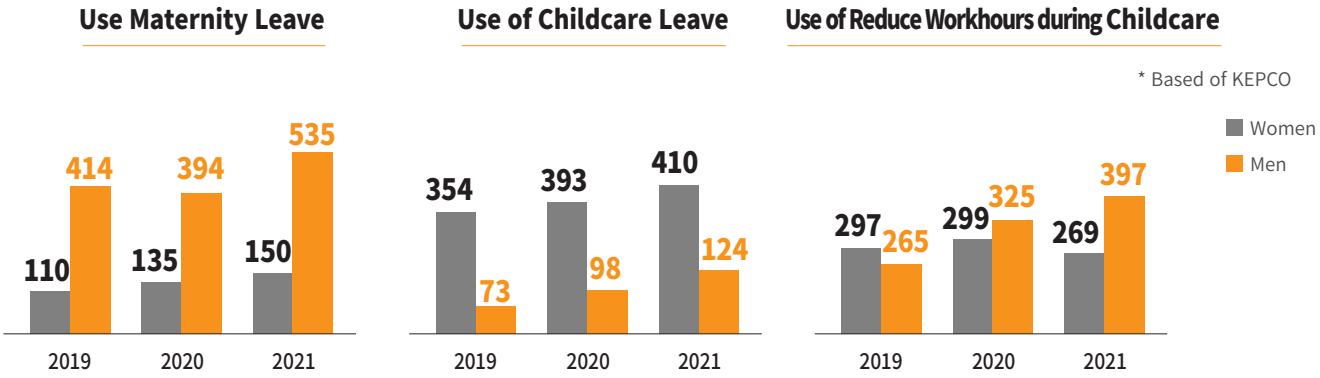
* HQ policy departments, regional HQ head, etc.

Maternity Protection Program

KEPCO has a variety of welfare programs in place to ensure optimized working environments for work and life balance. We established a maternity protection program to run reduced working hours and leave of absence to ensure the healthcare and childrearing time for pregnant women, and integrated services such as white papers on childcare e-books to help employees live a healthy and harmonious family life. At the same time, we grant additional points in recruitment for certain positions as part of job support for women with career discontinuation.

Expanding Gender Understanding

KEPCO agreed on the importance of understanding between different genders and gender sensitivity, and newly opened and conducted gender-balanced leadership training for deputy general managers. In this training, we learned how to expand our understanding of different generations and genders and better communicate. Also, participants acquired the qualifications and competencies required as middle managers of organizations to embrace gender diversity, by exploring the need to establish gender partnerships that lead to improved organizational performance and how to establish it.



KOWEPO I Training Female Managers following Life Cycle

KOWEPO applies an upper limit on the number of employees in the same department for employees in Level 4 positions, and encourages them to have various job experiences through job changes after 3 years of service and transfer after 5 years of service. We provide leadership and job competency training for female middle managers in Level 3, and encourage them to acquire related certifications. In particular, they are assigned to business management and facility support departments to help them grow as business development and construction managers. In addition, we are expanding participation of senior female managers in Level 1, 2 at major committees, in the process of management decision-making, for promotion review and Carbon Neutral Response TF. We are striving to foster female managers and female human resources by setting the direction for human resource development based on analysis on female human resources utilization along the lifecycle, supporting leadership and network building through participation in internal and external women leader education.

KOSPO I Realization of Gender Equality and Cultivation of Female Leaders

KOSPO launched 'KOSPO Gender Equality Development Committee' to strengthen gender equality and discover and implement improvement tasks from a gender-balanced perspective. Female executives are in charge of the entire process, including planning, task discovery, implementation, and inspection for the realization of gender equality within the organization and defined six tasks for gender balance including establishing a parental leave manual and improving female employee career management to ensure gender equality. In addition, we are operating various training programs to nurture female executive director candidates. Also, we are running courses for master's and doctoral degree education by field and rotation system for job positions to develop management and field capabilities, and at the end of 2021, Korea Southern Power appointed the first female director at Hadong Power Plant.

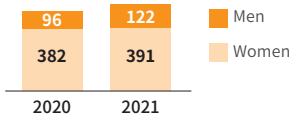
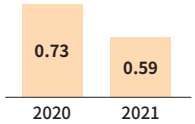
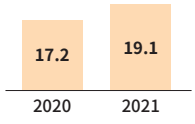
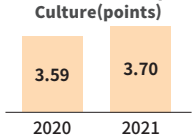
Practical Support for Work-Life Balance

Improvement in Work-Life Balance System

With changes in the external environment related to the improvement of working conditions, such as 'Encouraging Childbirth to Tackle Population Decline' and 'Reduced Working Hours for a Life with Family Dinner', and internal expectations such as growing interest in work-life balance and welfare programs among employees, KEPCO established company-wide work environments and implemented corporate culture improvement activities. We adopted 3-year parental leave per child, higher than the legal standard(1 year), and employees can split the period to take the leave. In addition, a flexible work hour is implemented to improve work efficiency with self-directed work time design, and work infrastructure has been strengthened following the implementation of the telecommuting system such as in-house mobile phone apps and cloud PCs.

We are also contributing to the creation of new jobs by strengthening parental leave, encouraging male employees to use parental leave, and securing additional hiring capacity for vacancies caused by the flexible work system. Proving the excellence of these activities to improve the working environment and change the organizational culture, KEPCO has earned the ‘Family-Friendly Certification’ of the Ministry of Gender Equality and Family for 11 consecutive years from 2011 to 2021.

Balance Implementation and Achievements Work-Life

Category	Implementation	Achievements
Strengthening Support for Childbirth and care	• (Congratulations on the birth) Baby gifts in the name of the CEO and chairperson(431 employees in 2020 → 596 in 2021) • (Vacation/leave) Reduced working hours during pregnancy and childcare(2 hours/day), childcare leave (3 years, splitable) • (Medical support) Support for inpatient hospitalization for pregnant women and children 's psychology and development clinics • (Information Provision) Provision of integrated information tailored to the users(Encyclopedia of childcare, e-book, etc.)	Childcare Leave(persons) 
Reduction Long work hours	• (PC-OFF) PC use time management to comply with working hours (aligned with flexible working hours) • (Leave work on time) Operation of the compulsory lights-off system at office for evening with family • (Work Efficiency) Distribution of business tablets for One-Stop field work • (Refresh) Based on labor-management consensus, long-term intensive leave of 2 weeks or longer recommended	PC-OFFtime(hours) 
Self-directed Work environments	• (Flexible work hours) Provides a self-directed immersion environment by designing working hours independently • (Annual leave) Increasing employee choice, turning from daily leave → hourly leave(minimum 30 minutes) • (Telecommuting) Building a home office environment such as in-company phone app(power call), cloud PC, etc. • (Labor management) Reflecting the rate of leave taken by department members in the personal evaluation of the department head	Annual Leave(days) 
Improvement in Corporate Culture	• (Redesign) Implementing company-wide culture improvement activities led by KEPCO Corporate Culture Committee • (Reporting method) Establishment of a smartphone(Power Talk) reporting system on Digital Work Place • (Meeting culture) Adopting paperless meeting infrastructure, using TV + smartphone • (Expansion of sharing) Blood donation paid vacation(2 days/year), participating in life sharing with blood donation relay(907 employees)	Satisfaction with Corporate Culture(points) 

Activation of Welfar-related Opinion Gathering and Communication

KEPCO is actively collecting opinions by utilizing various communication channels to meet employee welfare expectations and operate a welfare benefit system practically helpful to employees. While CEO directly listens to employees 'Opinions through on-site visits to business sites(21 times) and video conferences(2 times), the management holds weekly LAN discussions(74 times in total, 2,021 participants) to collect opinions on business improvements. In addition, we have prepared a place to share information on welfare benefits, with survey of all employees to improve the welfare benefit system, a labor union bulletin board, and activation of an in-house mobile community. We will create a vibrant and enjoyable workplace with a welfare benefit system that reflects employees' expectations, including active support for work-life balance, expansion of life cycle health checkups, and improvement of leisure programs.

Welfare Benefits Tailored to Each Generation

KEPCO is operating a welfare program tailored to each generation and individuals by supplementing and strengthening the welfare system, reflecting generational changes in employees. We are making diversified efforts to reflect the welfare needs of employees, such as expanding new welfare partnerships to areas of interest for the MZ generation and improving group insurance for the healthy work-life balance of the N86 generation. As such, KEPCO maximizes welfare and encourages work motivation with researches and analysis on the characteristics and interests of each generation and continuously reflects them in employee welfare programs.

Activating Labor-Management Communication

Labor-Management Joint Corporate Culture Committee

Category	Main Committee	Working-level Committee
Members	• Heads of Dprt. at HQ, Planning & Management Division Heads at regional HQ)	• Labor-Mgmt. Cooperation Bureau, labor union office, regional HQ general managers
Members	• Selecting corporate culture improvement tasks (10 tasks) • Inspection of implementation status by headquarters (18 regions/construction HQs)	• Defining improvement tasks by division and improvement activities • Online forums to improve corporate culture
Achievements	• Online discussions for HQ and offices communication organized by management (74 meetings for all offices, 2,021 participants) • Leader-driven corporate culture revision campaign (4,108 participants), visiting communication for sharing (27 times, 486 participants)	

Labor-Management Plus Movement

KEPCO is carrying out Labor-Management Plus campaign to spread the value of participation and mutual growth through labor-management communication suitable for business conditions and to strategically promote corporate culture improvement activities. The HQ establishes a company-wide basic plan for corporate culture improvement, presents goals and implementation tasks for each of the six improvement areas, and each business unit establishes its own implementation plan and implements the tasks. In 2021, through Labor-Management Plus Movement, we promoted sharing of management issues between labor and management, strengthen labor-management partnership, fulfill social responsibility, and improve corporate culture, and derived and implemented 243 tasks suitable for the characteristics of each local office.

Corporate Culture Improvement Tasks, Reflecting Characteristics of Offices

243 defined/implemented

Labor-Management Jointly Strengthening Systematic Competency by Job Position and Level

KEPCO seeks to solve increasingly complex and diversified labor issues by strengthening competency by position, job, and level at the labor-management level. We are striving to foster labor -management relations leaders such as HQ managers, union leaders, and in-house labor attorneys, as well as in-house experts by newly establishing master's programs in labor-management relations and doctoral courses in labor science. We are nurturing key internal experts in labor-management relations, running a competency-building program on Labor law, Labor Standards Act, labor-management council practical training and conflict management and special lectures by labor attorneys on field labor management for working -level employees. In addition, through e-learning to raise awareness and eradicate abuse of power at the company-wide level, we are taking the lead in improving our corporate culture and boosting understanding of the field.

Labor-Management Capacity Building Training Completion by Work level

Total **4,797** Participants

Introduction and Implementation of Labor Director System

The labor director system is to allow employees to participate in the board meeting, present their opinions on major agenda and participate in the decision-making process. KEPCO has prepared an optimal way to introduce the labor director system with overseas case studies on the labor director system, working-level discussions between labor and management, and comparison of the merits and demerits of applying the system to listed public corporations. In addition, efforts were made to introduce and implement the system seamlessly and run a pilot test, such as introducing and operating the system in collaboration with related departments such as the Labor-Management Cooperation Department and the Legal Office.

Labor Director System Implemented

Aug., 2022

Expansion of Direct Communication Channels

KEPCO is expanding channels for direct communication with CEO, union leader, and management to collect opinions from the field and resolve problems. CEO personally visited the business site to listen to difficulties at the site, discuss improvement plans, and shared various opinions with the union leader on current labor-management issues, such as safety management measures and wage negotiations, via non-face-to-face channels such as video conferences. In addition, 235 participants, including vice presidents, executives and employees at HQ, and heads of business offices discussed difficulties in carrying out business in the field and issues related to integrity and safety, activating all-round communication channels.

Expansion of Intergenerational Communication through Junior Board

KEPCO is operating Junior Board to encourage an active role of the MZ generation, the future leader, and to create synergy by promoting collaboration between generations. Junior Board is engaged in various activities, such as publishing essay books for intergenerational communication, producing posters and videos to improve corporate culture, and actively participating in online debates and TFs at HQ, contributing to idea generation and system improvement. The MZ generation employees showed significantly increase from 2.79 points in 2020 to 3.29 points in 2021 in satisfaction with corporate culture improvement , and the turnover rate within 3 years of joining the company also decreased from 2.7% in 2020 to 1.2% in 2021

Youtube clip produced by Junior Board

Books published by Junior Board

Corporate Culture Improvement Poster

Governance

While creating the shareholders' value consistently, KEPCO and group companies are establishing the transparent and independent governance to pursue environmental protection, job creation, and local development with stakeholders, thereby achieving harmony and balance. To this end, executives carry out responsible management by developing expertise and making a responsible decision and Board of Directors centered around outside directors monitor executives and give advice to them. Furthermore, KEPCO's key corporate culture is 'Ethics', 'Compliance', 'Fair Trade', we turn the crisis into opportunities to grow further by establishing the enterprise risk management system.

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  - Guarantee of the Rights of Stakeholders
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  - Enterprise Risk Management
  - Risk Management Plan by Type
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  - Operation of Audit Committee
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  - Voluntary Compliance with Fair Trade
  - Internalization of the Respect for Human Rights

Establishing of Governance Centered around BOD and Shareholders

Reinforcement of Objectivity and Expertise of Board of Directors

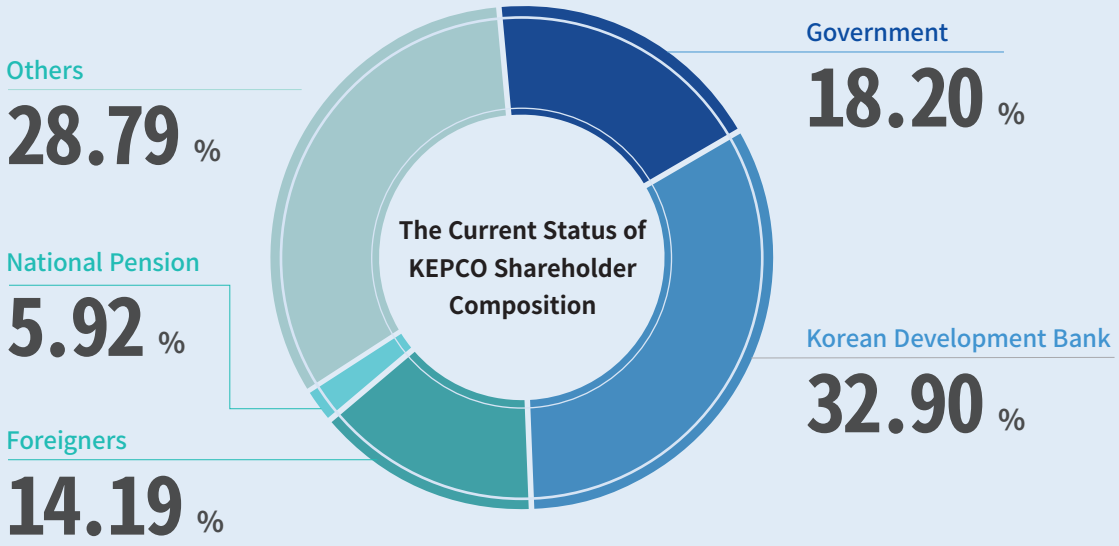
KEPCO and group companies review and decide the companies' management issues on the board of directors, the highest decision-making body of each company.
Board of Directors consists of inside directors and outside directors including CEO and the background of directors vary to raise the objectivity and expertise. Board of Directors of KEPCO and group companies show high rate of attendance and is striving to ensure the shareholders' right and listen to their opinions.

Fair Appointment Process of Directors

When appointing outsider directors of KEPCO and group companies, comply with 「Act on the Management of Public Institutions」 and 「Articles of Association」 .
The chairman of Board of Directors is appointed by going through the deliberation and decision from the Public Institution Operation Committee of the Ministry of Economy and Finance. The company recruits candidates when appointing CEO and appoints by going through Executive Recommendation Committee and Public Institution Operation Committee and the president finally appoints CEO through the request from the Minister of the Ministry of Trade, Industry and Energy.

The Current Status of KEPCO Shareholder Composition

As of December 2021



Maximize the Shareholders' Interests by Strengthening Transparency

KEPCO ensures the right of shareholder's proposal based on requirements stipulated in the Commercial Act. If the proposal is not against the laws and Articles of Association, the company allows the proposal to be proposed as the purposes of Board of Directors through the resolution from Board of Directors. Other than the situation where shareholders definitely intend to disturb the progress, we respect the statement from stakeholders and allow them to raise questions and ask for explanation, giving them chances to express their opinions. Besides, we are giving dividend as the part of raising shareholders' value and implementing shareholder return. This is disclosed through business report, quarterly report, semi-annual report, IR activities, and dividend payout.

Efforts to Communicate with Stakeholders including Shareholders

KEPCO is implementing IR activities, including the conference call for performance announcement of each quarter, Seoul Weekly IR, IR events for executives, and virtual conferences for overseas investors to provide shareholders with timely and enough corporate information. To promote the ESG management efforts of KEPCO and group companies that are gaining traction these days, we are actively promoting the carbon-neutral implementation plan, safety management strengthening guideline, the establishment of professional committees under BOD for various stakeholders including investors, analysts of stock companies, global financial agencies, rating agencies, listening to stakeholders' opinions accordingly.

2021 Major IR Activities

	Relevant Institution(Number)
Explanation for investors related to performance announcement of each quarter	75
Regular updates on management issues	58
Explanation of ESG management strategy for investors who emphasize ESG	27
IR activities related to the issuance of the green bond	34
Interview of CFO-stock company analysts	14

Establish the Sound Governance

Sound governance is essential to ensuring sustainable growth, the rights of shareholders, and trust with stakeholders. KEPCO and group companies strengthen the prior deliberation through the professional committee under Board of Directors and allow the participation from outside directors and professionals, supporting the objective and balanced decision making.

- Decision of recruitment of executive candidates
- Deliberation of executive candidates
- Decision of recommended executive candidates

- Prior deliberation of ESG agenda
- ESG management strategy advise
- Support for stakeholder communication

- Audit on work and accounting
- BOD reporting about audit results
- Examination of work and financial status

Establishing of Governance Centered around BOD and Shareholders

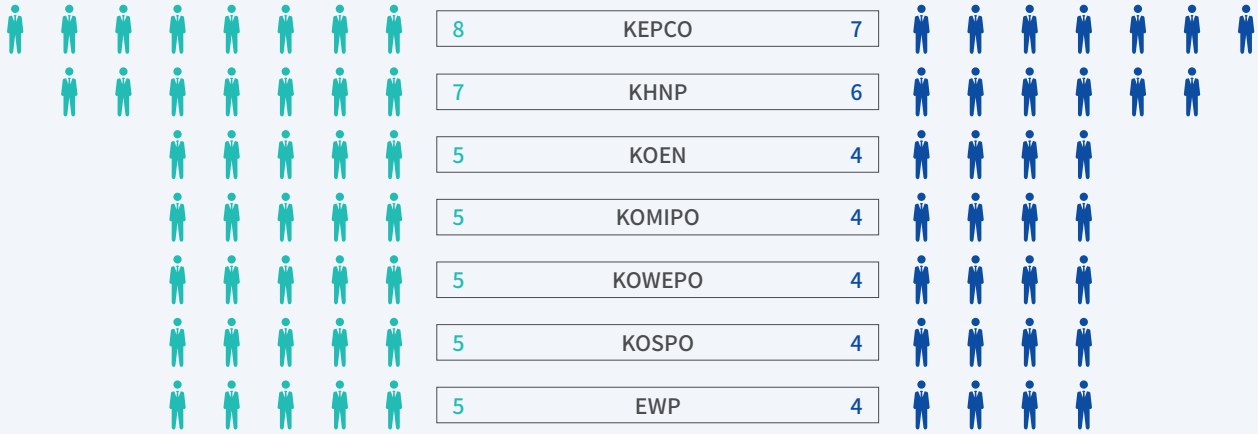
Group companies Proportion of Outside Directors

We create the environment where independent outside directors participate in the Board of Directors to keep executives and shareholders in check and put forward opinions for corporate development independently.

54.8 %
The total rate of outside directors

Outside director Inside director

As of March 2022 (Unit : Number)



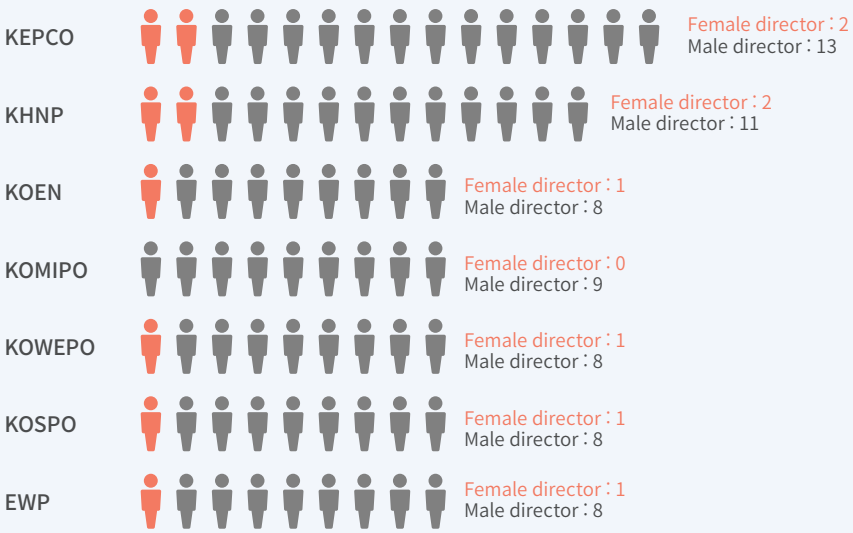
Group companies Gender Parity of Board of Directors

We appoint directors from various backgrounds so that Board of Director can consider different requirement from stakeholders and make decisions based on experiences from the broader perspective.

11.0 %
The total rate of female directors

Female Male

As of March 2022 (Unit : Number)

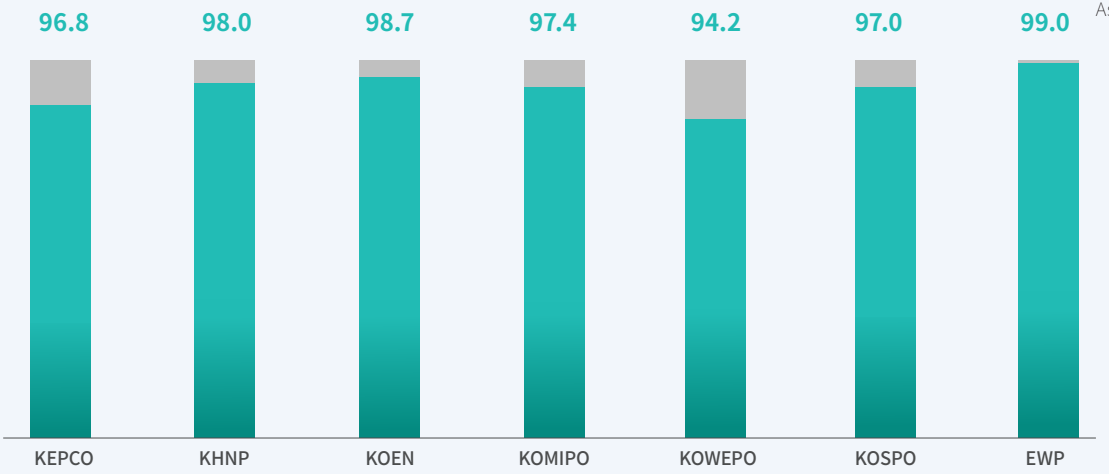


Group companies Average Attendance of Board of Directors

We are encouraging the active participation of members of the BOD to carry out the policy proposal and decision-making function effectively regarding the growth and development of KEPCO.

97.3 %
Average attendance of KEPCO and Group companies

As of 2021 (Unit : %)



KEPCO Operation of ESG Committee

ESG-related proposals are reported by Board of Directors and sub-committees and major ESG issues regarding business strategies are actively monitored, deliberated, and resolved.

9 Cases
The number of ESG agenda's deliberation/resolution/report of KEPCO and Group companies

Resolved proposals 5 cases

2021 ESG Committee Operation (proposal)
Decide schedule of events and meeting topics

Publication plan for 2021 sustainable management report
Discuss the writing criteria, key points, implementation schedule

The establishment of ESG Advisory Committee (proposal)
Discuss how to select members of Advisory Committee and operation schedule

UNGC membership (proposal)
Reviews the membership as the criteria for maintaining membership changed

Publication of 2021 sustainable management report (proposal)
Review the report and ESG management performance

Reported proposals 4 cases

2021 KEPCO safe management responsibility plan
Establish the 2021 safe management goals

Domestic and foreign ESG status and ESG management implementation
Discuss the status of ESG investors and evaluation results

2021 comprehensive plan for realizing social values
Discuss the establishment direction, business models by area and performance goals

The establishment of ESG implementation system and a plan for the second half of the year
Discuss the composition and operation of ESG working-level T/F and ESG plan for the second half of the year

As of 2021

Operate Independent Board of Directors

Composition of Board of Directors

Board of Directors of KEPCO consists of seven inside directors(standing) and eight outside directors(non-standing) and ensure that the majority of Board of Directors are comprised of outside directors for independence. An outside director is in charge of the chairman of Board of Directors to operate the transparent and independent Board of Directors. The members are experienced professionals in energy, power, law, finance, environment, and climate change and are not limited by their gender, race, and religion. Especially, we are managing the female director pool through the director nomination committee to encourage the recruitment and nomination of female director candidates. An outside director 'Bang Suran' who has expertise in legal affairs was appointed in 2020 and an outside director 'Kim Jaesin' who has expertise in accounting and finance in 2021, which means a total of two female directors are currently holding office.

List of KEPCO Board of Directors As of August 31, 2022

Classification	Name	Position	Career	Appointed date	Gender	Expertise
Inside Director (Standing Director)	Cheong Seungil	CEO	Former Deputy Minister of Trade, Industry and Energy	2021.06	Male	Energy / power
	Choi Youngho	Standing auditor	Former member of the Presidential Committee for Balanced National Development	2020.11	Male	Public / policy
	Lee Hyunbin	Vice president of management support	Former head of the establishment of the Korea Institute of Energy Technology	2020.09	Male	Energy / power
	Lee Jonghwan	Vice president of safety&buisness	Former KEPCO head of Technology Innovation Division	2020.11	Male	Energy / power
	Park HeonGyu	Head of Future Strategy Planning Division	Former KEPCO head of Win-Win Development HQ	2021.05	Male	Energy / power
	Kim Taeok	Head of Electricity Grid	Former head of KEPCO Gwangju, Jeollanam-do HQ	2021.03	Male	Energy / power
	Lee Heungjoo	Head of Overseas Nuclear Power Plant	Former director of KEPCO UAE Nuclear Power Plant Construction	2021.10	Male	Energy / power
Outside Director (Non-standing Director)	Park Jongbae	Chairman of BOD	Professor of electric and electronic engineering at Konkuk University	2020.01	Male	Energy / Electricity
	Bang Suran		Current Attorney-at-law/Partner at S Law Firm	2020.09	Femal	Legal affairs
	Park Hyosung	Audit member	Former consul general of the Ministry of Foreign Affairs, New York	2021.04	Male	Public / Policy
	Lee Keeman		Professor of Mechanical and Aerospace Engineering at Soonchun University	2021.04	Male	Technology
	Lee Kyesung		Former senior secretary of Political Affairs in the Presidential Office of the National Assembly	2021.07	Male	Public / Policy
	Kim Jaeshin	Chairman of the Audit Committee	CPA of Sadure Accounting Firm	2021.07	Femal	Accounting / Finance
	Kim Jongwoon		Former 6th chairman of Naju City Council	2022.08	Male	Public / Policy

※ One vacant outside director is seeking to be appointed

Expertise of Board of Directors

When comprising Board of Directors, KEPCO assess the 'expertise in their work' in the document screening to ensure that directors from various areas, such as energy, electricity, power, R&D, finance, environment, technology, are appointed. We are regularly carrying out inspection of the power facilities and training from home and abroad to strengthen the expertise. In 2021, we carried out the internal accounting management system and carbon-neutral strategic technology meeting to strengthen the capabilities of directors. In addition, KEPCO attended BIXPO2021, held with the topic of 'carbon-neutral' to cultivate knowledge and expertise regarding carbon-neutral.

2021 KEPCO Outside Director Training Performance

Date of training	Training host	Attendee list	Content
2021.11.10	Planning Department	Park Jongbae, Bang Suran, Park Hyosung, Hwang Cheolho, Lee Kyesung, Kim Jaeshin	Participation in BIXPO2021, Company's major management matters and the current status of power industry
2021.11.25	KPMG Samjong Accounting Corp.	Sung Siheon, Park Jongbae, Bang Suran, Park Hyosung, Lee Keeman, Hwang Cheolho, Lee Kyesung, Kim Jaeshin	Major changes in internal accounting, Management system and its implication
2021.12.29	Tech-Planning department	Park Jongbae, Bang Suran, Park Hyosung, Lee Keeman, Kim Jaeshin	Site visit to KEPCO Research Institute, Carbon-neutral strategic technology meeting

Board of Directors Appointment Standard and Process

KEPCO appoints members of Board of Directors according to the 'Act on the Management of Public Institutions' and 'KEPCO Articles of Association'. The term of CEO is three years and the president appoints CEO by going through open recruitment of candidates, executive recommendation committee, Public Institutions Committee, general meeting of shareholders, and request from the Minister of Ministry of Trade, Industry and Energy. The term of inside directors is two years and they are appointed by CEO through the request from the Minister of the Ministry of Finance and Economy. A standing auditor is appointed by the president through the recommendation of Executive Recommendation Committee, resolution of Public Institution Committee, and the request from the Minister of the Ministry of Finance and Economy. The term of outside directors is two years and they are appointed by the Minister of the Ministry of Finance and Economy through the recommendation of Executive Recommendation Committee and the resolution of Public Institution Committee.

In particular, when appointing outside directors, we strictly review whether they have special relations by examining the law requirements according to the 'Act on the Management of Public Institutions' and disqualification according to the Commercial Act. Appointed outside directors carry out the role of checks and balances independently.

KEPCO Board of Directors Appointment Process

Classification	Appointment process
CEO	Recommendation from Executive Recommendation Committee → Deliberation and resolution from Public Institution Operation Committee → Resolution at the general shareholders' meeting → Recommendation for appointment from the Minister of Trade, Industry and Energy → Appointment from the President
Standing Auditor	Recommendation from Executive Recommendation Committee → Deliberation and resolution from Public Institution Operation Committee → Resolution at the general shareholders' meeting → Recommendation for appointment from the Minister of Finance and Economy
Inside Director	Resolution at the general shareholders' meeting → Appointment from CEO
Outside Director	Recommendation from Executive Recommendation Committee → Deliberation and resolution from Public Institution Operation Committee → Appointment from the Minister of Finance and Economy

Opening and Participation of Board of Directors

KEPCO's Board of Directors is held once a month on a regular basis. Temporary Board of Directors is collected when necessary. While allowing directors to join the 100 billion won of executive liability insurance for courageous decisions, according to the Commercial Act, directors are not allowed to work as a director, a member of the executive committee and auditor we restrict the additional job through the BOD operation regulation to make sure that they can put their time and energy in important decision making. And they should report to the Board of Directors and get approval regarding the additional job when trying to get additional jobs in other companies.

To secure the transparency in Board of Directors, KEPCO thoroughly manages and monitors the conflicting activities by ensuring that directors get approval from Board of Directors when directors try to utilize the KEPCO's business opportunities as their interests or third-party's interests in accordance with Article 398 and 398 of the Commercial Act. In addition, directors who have special relationship with proposals of Board of Directors, they are not allowed to participate in resolution of the relevant proposal. The meeting minutes and attendance for a resolution proposal are disclosed on the Dart(Date Analysis, Retrieval and Transfer) and ALIO(All Public Information In-One).

2021 KEPCO Board of Directors' Salary Payment Status

The CEO of KEPCO established the management performance plan (a three-year unit performance goal and implementation plan for performance indicators) reflecting the management guideline and medium-and long-term management goals. Regarding the management goals to be achieved during the term, we make management contracts with the government(Minister of the Ministry of Trade, Industry and Energy) and are assessed by the Public Institution Management Evaluation Group regarding the implementation performance. The salary of inside directors, including CEO, is set by the 'Executive Salary Guideline for Public Institution and quasi-governmental departments' to set the salary limits and the salary is paid within the approved compensation limit determined by the Board of Directors. Bonus is determined reflecting the implementation performance and the bonus of CEO is divided and paid for three years through the mid-term bonus system. In addition, whether the outside director serves a second term or not is determined by the performance of their duties and is paid a job allowance according to the internal guideline. The information on salary payment is disclosed on the business report and ALIO (All Public Information In-One).

2021 KEPCO Board of Directors' Salary Payment Status (Unit : Number, 1,000 won)

Classification	The number of members	Total compensation	Average compensation per person
Registered director (excluding outside directors and members of the Audit Committee)	6	1,196,732	199,455
Outside director (excluding members of the Audit Committee)	6	180,000	30,000
Members of the Audit Committee	2	60,000	30,000
Auditor	1	189,732	189,732

* It is the salary information of Board of Directors as of 2021 and is different from the list of newly appointed directors in 2022

2021 Ratio of CEO Compensation to the Average Compensation of KEPCO Executives and Employees (Unit : 1,000 won)

CEO compensation	Average Salary per employee	Ratio of CEO compensation to average employee compensation
252,753	84,962	297%

2021 Proposal of KEPCO's BOD

The round of events	Proposal name	Approval status	Attendance	Approval rate
1st ('21.1.15)	2021 KEPCO safety basic plan (proposal)	Approved	100%	100%
	Composition and screening criteria for recommending applicants for outside directors (proposal)	Approved		100%
	Report on the dissolution of funds regarding overseas resource development	Accepted		-
2nd ('21.2.9)	Composition and screening criteria for recommending applicants for CEO	Approved	100%	100%
3rd ('21.2.19)	Plan for the convening of 60th regular general meeting of shareholders (draft)	Approved	76.92%	100%
	Convention on the performance of the head of the agency (proposal)	Approved		100%
	Amendment of Articles of Association (proposal)	Approved		100%
	2021 Directors' Salary Limit (proposal)	Approved		100%
	2020 fiscal year's report on the operation status of the Internal Accounting Management System	Approved		100%
	2020 fiscal year's report on evaluation results of operation status of the Internal Accounting Management System	Accepted		-
	2020 report on annual audit results	Accepted		-
	2020 fiscal year's statement of appropriation of retained earnings (proposal)	Accepted		-
4th ('21.3.5)	2020 fiscal year's statement of appropriation of retained earnings (proposal)	Approved	84.62%	100%
	Closure of the shareholder list for the convening of the extraordinary general meeting of shareholders (draft)	Approved		100%
	Convening change of the 60th regular general meeting of shareholders (draft)	Approved		100%
5th ('21.4.16)	Composition and screening criteria for recommending applicants for outside directors (proposal)	Approved	100%	100%
	Revision of salary and welfare management regulations (proposal)	Approved		100%
6th ('21.5.13)	Recommendation of applicants for audit members (proposal)	Approved	100%	100%
	Convening of the 61st extraordinary general meeting of shareholders (draft)	Approved		100%
7th ('21.5.21)	An increase in the student number (proposal)	Approved	100%	100%
	Second contribution for Korea Institute of Energy Technology (proposal)	Approved		100%
	Report on audit results for the first quarter of 2021	Accepted		-
8th ('21.6.25)	2021-2025 mid-to long-term finance management plan (proposal)	Approved	93.33%	100%
	Revision of the Basic Terms and Conditions of Supply (draft)	Approved		100%
	2021 win-win cooperation fund for large companies and SMEs (proposal)	Approved		100%
9th ('21.7.21)	Convening of the 61st(Secondary) extraordinary general meeting of shareholders (draft)	Approved	100%	100%
	Closure of the shareholder list for the convening of the extraordinary general meeting of shareholders (draft)	Approved		100%
	Recommendation of applicants for audit members (proposal)	Approved		100%
	Appointment of ESG Committee's members (proposal)	Approved		100%
	2021 working welfare fund (proposal)	Approved		100%
	Establishment of overseas branch and contribution for UAE submarine transmission grid bidding project (proposal)	Approved		100%
	Youngbae 4.0 enterprise expansion second-stage implementation (proposal)	Approved		100%
	Report on organization reform	Accepted		-
10th ('21.8.20)	The 9th long-term transmission system plan (proposal)	Approved	100%	100%
	Report on audit results of second quarter of 2021	Accepted		-
	Report on the settlement performance for the first half of 2021	Accepted		-
11th ('21.9.16)	Revision of salary and welfare management (proposal)	Approved	100%	100%
	Convening of the 61st(Third) extraordinary general meeting of shareholders (draft)	Approved		100%
12th ('21.10.28)	Mid-to long-term (2022~2026) management goals (proposal)	Approved	93.33%	100%
	2021 contribution for win-win cooperation fund in rural areas	Approved		100%
13th ('21.11.25)	Revision of salary and welfare management regulations (proposal)	Approved	100%	100%
	The purchase of the Uijeongbu substation's remaining areas (proposal)	Approved		-
	Report on audit results for the third quarter of 2021	Defer		-
14th ('21.12.17)	Contribution for KEPCO International Nuclear Graduate School(proposal)	Approved	100%	100%
	2022 R&D project plan (proposal) Approved	Approved		100%
	2022 budget and operation plan and borrowing of external funds (proposal)	Approved		100%
15th ('21.12.27)	Revision of supply terms and security supply terms (proposal)	Approved	100%	100%

Guarantee of the Rights of Stakeholders

Shareholders' Status

KEPCO is the market-type public institution under the Ministry of Trade, Industry and Energy established to supply power in Korea, a significant share of shares is held by the government and institutions under the government. As the company listed on the securities market, 49% of shares excluding the government's share is held by foreigners and other shareholders and KEPCO does not issue the golden share that allows shareholders with a share to exercise the right of veto regarding the resolution matters of the shareholders' meeting.

Month	Classification	Government	Korean Development Bank	Foreigners	Others	Sum
2021.12.	Number of shares	116,841,794	211,235,264	91,105,897	222,781,122	641,964,077
	Ratio (%)	18.2	32.9	14.19	34.71	100

Efforts to Ensure the Rights of Stakeholders

KEPCO is carrying out various activities to ensure the rights of shareholders. We ensure the basic right, such as profit-sharing right, participation of shareholders' meeting and exercising voting rights, and information provision for exercising voting rights stipulated in the Commercial Act. Furthermore, various communication channels allow the reliable communication with shareholders and DART and website disclose the IR material(Management performance and prediction information), thereby providing shareholders and potential investors with useful information for decision making. In addition to that, IR and NDR collect various requests and opinions from shareholders to ensure the reasonable management activities.

Voting Rights System (Electronic Voting System)

KEPCO regulates that recruitment announcement should be made at least before two weeks to make sure that shareholders recognize the proposal of shareholders' meeting in advance. Furthermore, for shareholders who are not able to participate in the shareholders' meeting due to the location and time, we adopted the electronic voting system from December 2015. Therefore, shareholders of KEPCO can exercise the voting rights on online without having to attend in person.

Grant One Share and One Vote

Based on the Commercial Act and Articles of Association, we ensure the voting rights according to the one-share-one-vote rule. As of late 2021, the total shares of common shares are 641,964,077 and we don't have treasury share.

Classification	Type of share		
	Common share	Preferred share	Sum
Ⅰ. The total shares issued	1,200,000,000	-	1,200,000,000
Ⅱ. The total shares issued to present	641,964,077	-	641,964,077
Ⅲ. The total shares that decreased to present	-	-	-
1. Reduction of capital	-	-	-
2. Profit retirement	-	-	-
3. Redeem of redeemable share	-	-	-
4. Others	-	-	-
Ⅳ. The total number of shares issued (Ⅱ-Ⅲ)	641,964,077	-	641,964,077
Ⅴ. The number of treasury shares	-	-	-
Ⅵ. The number of outstanding shares (Ⅳ-Ⅴ)	641,964,077	-	641,964,077

Establishment of the Sound Governance

Sound governance is essential to ensuring sustainable growth, corporate value, protection of stakeholders such as shareholders as well as the governance reliability through transparent management activities. From 2017, KEPCO's governance report explains the corporate governance policy, rights and role of shareholders and BOD, and the current status of internal audit organizations and outside auditors in detail, and the compliance with 15 relevant key indicators is disclosed to all stakeholders. Governance report is disclosed on the KEPCO website and DART system .

Compliance with Key Indicators of KEPCO Governance

Classification	Indicator	Compliance Status		Explanation on O/X mark
		○	X	
Shareholders	1) Announce the shareholders' meeting before four weeks		X	Notify and announce the shareholders' meeting before two weeks
	2) Implement electronic voting system	○		Introduce and utilize the electronic voting system
	3) Hold shareholders' meeting excluding the concentrated day	○		Hold shareholders' meeting on March 29 excluding the concentrated day
	4) Announce the dividend policies and dividend implementation plan to shareholders at least once a year		X	Disclose the dividend implementation plan on the day when Board of Directors makes decision
BOD	5) Devise and operate the CEO succession policy (including the appointment policy when it comes to emergency situations	○		Operate the appointment process for the head of an institution according to the Act on the Management of Public Institutions
	6) Devise and operate the internal control policy	○		Operate the internal accounting management regulations
	7) Separate the chairman of Board of Directors and CEO	○		The chairman of the Board of Directors is appointed among non-executive directors and separated from CEO
	8) Adopt the cumulative voting system	○		Cumulative voting system is not excluded according to the Articles of Association
	9) Come up with policies to make sure that people who are responsible for corporate value damage and infringement of shareholders' interests are appointed as executives	○		Disqualification and ability examination are assessed comprehensively from the Executive
	10) There is no outside director who has been holding office for more than 6 years	○		The term of outside directors is two years and they can serve consecutive terms on a yearly basis
Audit organization	11) Provide training at least once a year	○		The term of outside directors is two years and they can serve consecutive terms on a yearly basis
	12) Establish the independent internal audit department (Internal audit organization)	○		There is an internal audit organization under the Audit Committee
	13) There are accounting professionals or financial professionals in the internal audit organization	○		Appoint an accountant or financial professional among audit members
	14) Internal audit organization holds a meeting with outside auditors without executives once a quarter	○		Hold an in-person meeting more than once a year quarterly
	15) Devise the process with internal audit organization in the management-related information	○		Ensure by the audit regulations

Reinforcing the Risk Identification and Preemptive Response

KEPCO and group Companies are facing unprecedented risks including climate change, energy supply disruptions and sudden rises in energy prices, and concerns about the economic slowdown. Amid the uncertainty of external conditions, we are planning to secure the future-oriented growth engine and dominate the overseas markets and new industries through preemptive technology innovation and energy system transition, turning the risk into opportunities to achieve win-win growth. To this end, Audit Committee under BOD, the highest decision-making body, ESG Committee, and Advisory Committee will play a major role in preventing and minimizing the risks preemptively from the professional view.

KEPCO

Chairman of KEPCO ESG Committee
Park Jong-bae

As KEPCO is facing unprecedented crises including a sudden rise in material costs and stricter ESG regulation, we are sharing electric business-related issues and maximizing the risk management capabilities by organizing consultative groups such as 'Meetings with the presidents of electric group companies' and 'Emergency Planning Committee of group companies.' Furthermore, we established the disaster countermeasures for stable electricity supply and sustainable supply chains by providing subcontractors with ESG transition support, thereby establishing the ESG-based risk management system throughout the electric industry. Going forward, we will consistently strive to communicate and cooperate with major stakeholders such as group companies and subcontractors to supply sustainable 'Human-centered Clean and Warm Energy'

KHNP

KHNP launched the ESG Committee in August 2021 to respond to ESG-based risks preemptively. ESG management of KHNP is focusing on achieving the coexistence between nuclear power and renewable energy, leading a carbon-neutral system, strengthening human rights and safe operation, and having tailored communication with stakeholders. Especially, KEPCO puts a priority on the safe operation of nuclear power plants. ESG Committee of KHNP will endeavor to operate the nuclear power plants safely by encouraging active communication and voluntary problem-solving.

Chairman of Korea Hydro & Nuclear Power ESG Committee
Kim Huijip

KOEN

Chairman of Korea South-East Power ESG Committee
Jo Ilhyeon

KOEN established the 'KOEN 2050 Carbon-neutral Roadmap' to quickly respond to climate change risks in a decisive manner. The company is speeding up the large-scale solar photovoltaic power business and offshore wind power business to convert the coal thermal power generation into new renewable energy generation. In addition, we are diversifying the low-carbon technologies such as CCUS(Carbon Capture, Utilization, and storage) to achieve a 100% reduction of net greenhouse gas emissions, cultivating the climate-related new industry. Going forward, we will keep strengthening the capabilities of climate change risk management by communicating with stakeholders, ushering in the energy transition era, and achieving 2050 carbon neutrality.

KOMIPO

Chairman of Korea Midland Power ESG Committee
Kwak Chaegi

KOMIPO established the 'KOMIPO Ethical Management Standard Model' comprising six major factors including the establishment of ethical awareness and identification of ethical risks to systematically manage the integrity ethics and human rights risks. KEPCO adopted the human rights management system that manages ethical risks by breaking them into key risks and general risks, monitoring the human rights risks by the business site in advance, and improving the shortcomings gradually. Going forward, we will pursue transparent governance and ethical compliance management to win the trust of various stakeholders and Korean people, thereby becoming a reliable public institution.

KOWEPO

KOWEPO established the ESG Committee within BOD in June 2021 to actively respond to the national carbon-neutrality policy related to climate change. Especially, KOWEPO is supporting the ESG management of subcontractors and improving regulations for fair trade to spread the ESG culture. For example, the company is discovering practical cooperation measures and implementing them by carrying out 'ESG consulting support for subcontractors' and 'Outreach CEO mutual growth management.' Going forward, KOWEPO and ESG Committee will strive to achieve mutual and sustainable growth with contractors. Thank you.

Chairman of Korea Western Power ESG Committee
Park Jeonggeun

KOSPO

Chairman of Korea Southern Power ESG Committee
Kang Jaeho

In February 2022, European Parliament revealed the 'Due Diligence Guideline of Supply Chains' that requires companies to monitor and improve the existing due diligence system of supply chains. It means that we need leading ESG risk management different from existing support activities for supply chains. In response to this, KOSPO is taking the lead in managing the ESG-related risks of supply chains by encouraging subcontractors to improve their ESG levels and implementing safety level strengthening business. For effective ESG management, we established the ESG Committee in May 2021 and turned it into an 'Open ESG Management Committee' by recruiting private experts. Going forward, we will endeavor to realize sustainable ESG management through the solidarity of the industry ecosystem.

EWP

As stakeholders are asking for safety at the workplace and the Serious Disaster Punishment Act has been implemented, systematic safety management is becoming more important. Under the slogan of 'No Development without Safety', EWP puts a priority on workers' safety when it comes to its management. Last year, Korea East-West Power monitored all activities related to regulations, systems, and the way of work by operating the 'Special Safety TF' led by the CEO and improved the shortcomings to prevent industrial disasters. Going forward, Korea East-West Power will strive to strengthen the constitution of safety management to prevent ESG risks and become the leading company in terms of the eco-friendly energy transition.

Chairman of Korea East-West Power ESG Committee
Choi Gyusang

Enterprise Risk Management

Risk Management System

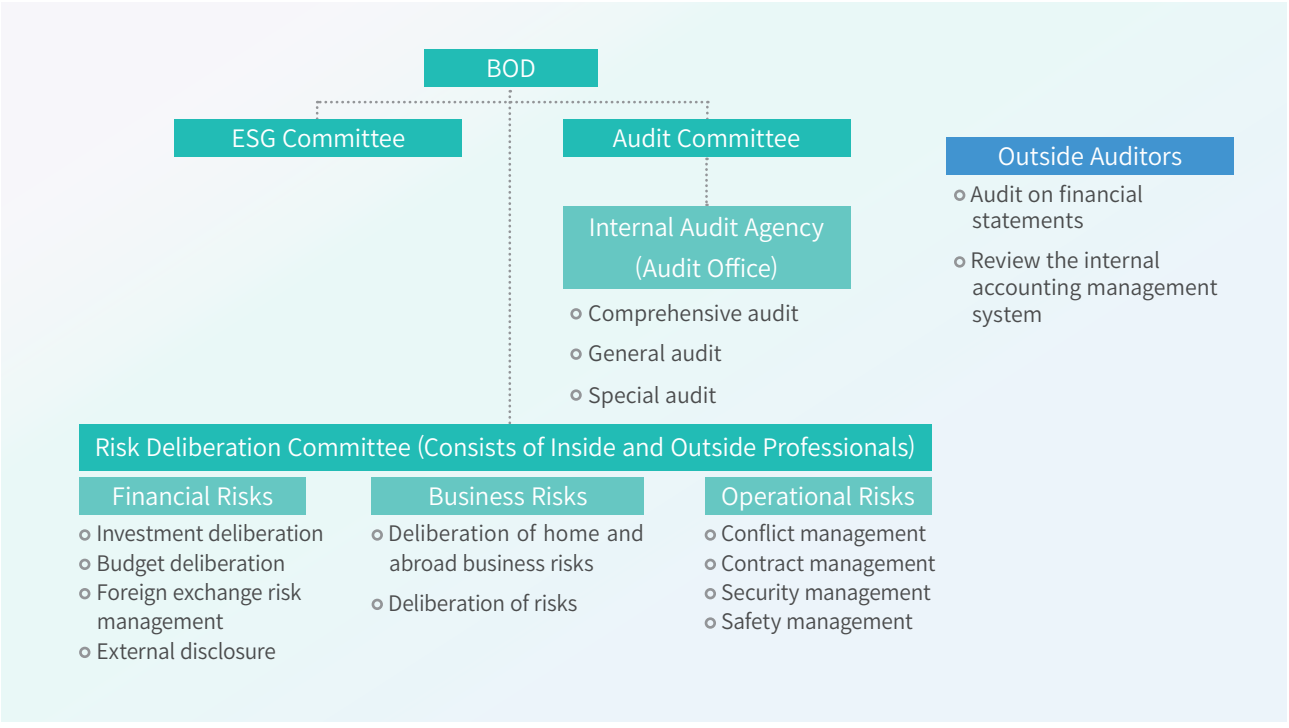
KEPCO is facing two major paradigm shifts including eco-friendly energy transition and ESG management adoption. The new paradigm comes with opportunities to become the world-class power supply company and risks caused by uncertainties. Therefore, we are operating the management system to prevent the possible risks in advance and efficiently respond to risks emerged. We regularly host the management meetings and business strategy meetings led by executives to share the inspection results of internal and external management environment and risks by area. By doing so, we are exploring how to collectively respond to difficult risks that are not handled by individual department with relevant departments.

KEPCO established the enterprise risk system to identify and manage various types of risks and designated CRO(Chief Risk Officer) to operate the risk governance. By establishing the risk management department by type to identify, report, and respond to risks by factors.

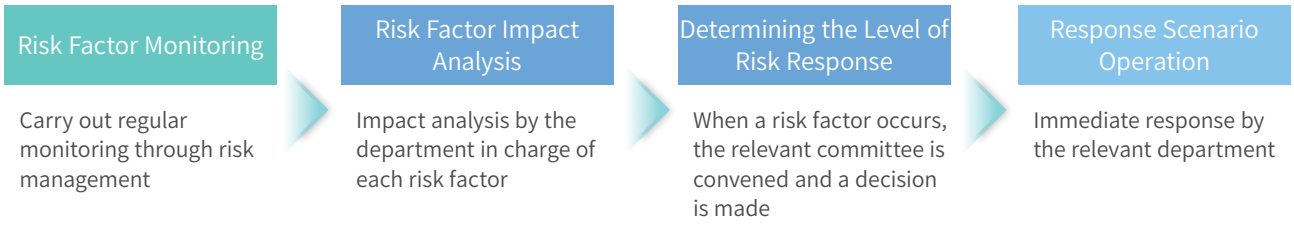
Together with that, KEPCO is independently operating the Risk Deliberation Committees comprising of inside and outside professionals by finance, business, and operation, outside auditors, and Audit Committee in the Board of Directors. Furthermore, we are working hard to make sure that internal control system is operated effectively by establishing the independent internal audit organization under the Audit Committee.

In the Risk Deliberation Committee, while the majority of directors should be outside directors to secure independence and expertise, financial risks are disclosed by reviewing and evaluating the financial statement and internal accounting management system by independent outside auditors. In addition, we established the ESG Committee comprising of outside directors to review and deliberate the major reporting and decision-making matters regarding the non-financial risks such as environment, society, and governance.

KEPCO Risk Management Organization Chart



KEPCO Risk Monitoring Process



Risk Management Plan by Type

Financial Risk Management

Strategy & Planning Division is evaluating and managing the enterprise risks and opportunities and related impacts are reflected in the financial management areas. Financial risk management portal establishes the medium-and long-term financial management plan every year by monitoring financial risk factors and analyzing short-term, mid-term and long-term management environment, reporting them to the Board of Directors. In terms of KRI, we set the standard according to the three years of fluctuation by indicators and scenarios and manage them in accordance with 5 stage risk level(Preparation, Attention, Caution, Alert, Serious).

#1 Profitability Decline caused by the Fuel Cost Increase

(Explanation and effects) When price fluctuation is not reflected on the electric bill, the hike in fuel cost such as bituminous coal, petroleum, LNG may not be reflected on the current electricity bill. As a result, the financial soundness of KEPCO may be undermined.

(Easing activities and plans) By applying the cost-linked bill, we disclosed the basic oil cost(Electricity Bill) in December 2021 and we decided that the fuel cost is 46.6 won per kwh, up 9.8 won. Considering the burden of people, we decided to increase the basic fuel cost by 4.9 won/kwh in April 2022 and by 4.9 won in October.

#2 Increase in Power Generation Costs caused by Stricter Environment-related Regulations

(Explanation and effects) Policies and laws managing the climate change (reduction in greenhouse gas emission and coal-power development according to the Nationally determined Contributions (NDC), Renewable Portfolio Standard (RPS) are regulated and stricter. In response to this, new renewable energy development facilities and technology investment are required and this may decline the financial soundness in KEPCO and group companies.

(Easing activities and plans) We are planning to make investment to respond to legal risks including the infrastructure investment for renewable energy power generation. To this end, in January 2021, the company introduced the cost-linked electricity rate system to clarify the link between climate and environmental costs and electricity rate and improve transparency by charging such costs separately. 'Climate and environmental costs' were separated from the existing 'electricity rate' to reflect the costs related to RPS and ETS and the reduction in coal power generation. In December 2021, we announced the climate and environmental costs that will be applied from 2022 by considering the increase of climate and environmental costs in 2021 in accordance with the adoption of a cost-linked electricity rate system.

Non-financial Risk Management

In the rapidly changing management environment, various types of risks are taking place in economy, society, and environment. KEPCO regulated the 'Risk Management Business Guideline' to effectively manage such risk factors and designated the responsible departments and relevant departments in conflicts, health, terror, disasters, and promotion to establish the risk management system and stipulate the necessary matters that are required for risk management activities. Together with that, 'Risk Management Portal' allows the consistent management activities, and KEPCO published the 'Risk Management Manual' to respond to risks quickly.

Conflicts	Health	Terror
○ Civil complaints related to transmission and conversion equipment ○ Power supply is disabled because of social factors	○ Health-related risks for employees such as the outbreak of contagious disease	○ Human life and power facilities are damaged by facility terrors

Disasters	Climate Change	Public
○ Power supply shortage caused by demand hike ○ Power supply is disabled because of disasters ○ Power supply is disabled because of the breakdown of power grid ○ Power supply is disabled because of the cyber attacks	○ Energy reduction and greenhouse gas emission reduction ○ Response to changing policy like RPS and carbon management Response to emission trading system of greenhouse gas	○ The company image is damaged because of the negative cases related to employees occur ○ Power industry may be in risk because of the inaccurate report

Climate Change and ESG Risks

Climate Change Risk Identification and Assessment

KEPCO integrated the climate change-related risks into the enterprise risk management system. Through the deliberation process from Business Selection Committee, Risk Deliberation Committee, and Investment Deliberation Committee. Along with that, we make efficient investment decision regarding the climate change-related businesses. When it comes to business that comes with climate change-related activities and large-scale investment, we deliberate the business feasibility through the process before executing investment cost. We comprehensively consider the financial impacts such as stricter environmental regulation, tax reform in energy, emission trading and non-financial impacts such as external reliability, analyzing the risks of relevant businesses caused by climate change.

Business Selection Committee thoroughly deliberates the obstacles in business, analysis on expected risks and rate of profit, bankability, business project plan and required budget, timeline regarding the analysis on business feasibility conducted by the department in charge of business development. Risk Deliberation Committee identifies the risks that should be managed first according to the seriousness considering major risks, management strategies, and likelihood from a short-term, mid-to long-term perspective. Overseas Business HQ evaluates the risks regarding major investment business in advance by operating their own Risk Deliberation Committee. Investment Deliberation Committee carries out the final assessment on investment portfolio for businesses and other investment projects that passed the two-stage deliberation. Businesses that passed all deliberation processes get final approval from the BOD resolution.

Step-by-step Committees and Key Risk Management Matters

	National Business (New Businesses in Energy and New Renewable Energy Business)	Overseas Business
Business Selection Committee	**Obstacles in businesses, analysis on expected risks and return rate, possibility of capital finance, implementation plan and required budget, schedule**	
Risk Deliberation Committee	• Matters related to basic guidelines and plans • Matters related to contract • Matters regarding the establishment of the branch(SCP) and contribution • Matters regarding finance capital • Basic plan for investment risk management • Review the major assumptions and business environment, analyze the situational sensitivity, risk management	• Review the business environment and major assumptions • Management strategy for risk analysis and response measures • Project cost composition and capital finance • Sensitivity analysis by estimating situational cash flow • Reflection of residual value and restoration costs • Approval of the adequacy test for the existing profit rate
Investment Deliberation Committee	**The necessity of business promotion, appropriateness of enforcement period, profitability, examination of risks and countermeasures, change points and reasons after the deliberation by the previous steps**	
Resolution of BOD	**Final approval after the deliberation of business investment**	

Direction of Climate Change Risk Response

Climate change risks of KEPCO consists of transition risks and physical risks. Transition risks are risk factors that may change the policy, technology, and market and affect the company image and reputation while responding to climate change and the risks are managed by establishing the response strategies by item. Physical risks are chronic and acute risk factors in power facilities caused by abnormal climate. To respond to this, we analyzed the comprehensive climate change impacts through scenario analysis (RCP 8.5) and came up with the 'Climate Change Adjustment Measure' to reflect it on the management strategy.

Type		Explanation	Response
Transition Risks	Policy	▪ Free allocation ratio of emission trading decreased from 97% to 90%, so the purchase cost of emission trading is expected to increase ▪ Need to respond to additional reduction allocation requirements to achieve the 2050 carbon-neutral plan	▪ Power transmission and distribution gas, 64% of greenhouse gas emissions, can be collected and refined and greenhouse gas emissions can be reduced by expanding eco-friendly switch
	Technology	▪ Financial burden rises when R&D cost increases because of the technology development to respond to climate changes by reducing greenhouse gas and expanding new renewable energy	▪ Group companies carry out collective research regarding SF6 reduction technology, next-generation CO_2 decoupling technique ▪ 2.86 trillion won will be invested in 37 techniques in 5 areas by establishing the 2030 mid-to long-term technology strategy
	Law	▪ When lawsuit regarding environment like climate change, negative impacts on financial structure and reputation emerge	▪ Identify and evaluate the climate-related legal risks according to the internal deliberation process, and review and establish the response measures
	Market	▪ Unit price of power purchase is determined by various factors including fuel costs by power source, exchange rate, price	▪ By applying the cost-linked electricity bill system, price fluctuation in imported fuels, such as coal and natural gas, is periodically reflected in the bill
	Reputation	▪ When stakeholders' request regarding climate change is not considered, negative impacts like the cost of capital finance may take place	▪ By participating in the CDP, climate change response is disclosed and information disclosure practice is strengthened according to the TCFD recommendation
Physical Risks	Short-term	▪ Short-term environmental changes caused by abnormal climate change, such as typhoon and flood, lead to power facility breakdown and recovery cost	▪ Analyze and evaluate how extreme heat, extreme cold, heavy rain, heavy snow affect power facilities utilizing climate change scenario (RCP 8.52) ▪ Establish and implement the climate change adjustment measure containing 2035 step-by-step implementation plan
	Medium and long term	▪ Long-term environmental change like global warming negatively affects the operation of power facilities and causes extra cost	
Opportunity Factors	Promote the demand resource trade	▪ Power purchase cost can be reduced by avoiding construction cost utilizing demand resource markets and encouraging system marginal price	▪ Expand the operation technique of demand resource, Smart Meter, and distributed resource like ESS and EVC to revitalize the demand resource trade
	Eco-friendly business	▪ Eco-friendly business demand will increase according to the decarbonization investment status in the capital market and 2050 carbon-neutral plan	▪ Develop the large-scale renewable energy like offshore wind power and diversify the eco-friendly business by expanding the new industry in ICT convergence energy
	Diversify resource finance	▪ By financing the capital with the issuance of ESG bond, financial cost can be decreased and the company can be considered as eco-friendly	▪ Develop the renewable energy by issuing ESG bonds and increase the eco-friendly investment by expanding the new renewable energy-related facilities

1) CDM(Clean Development Mechanism) : The reduction portion from the investment to developing countries is credited as the reduction performance of advanced countries
2) RCP(Representative Concentration Pathways) 8.5 : The scenario supposing that what the future look like when greenhouse gas emission is maintained at the current status
3) Demand Response : Trade where surplus electricity is sold to electricity markets when price is high or electricity system is in the crisis

Operation of Audit Committee

Audit Committee Composition

As KEPCO abides by the Act on the Management of Public Institutions and constitutes and operates the Audit Committee according to the Article 20-2 of the same Act. We regulate the 'Audit Committee Operation Guideline' and operates the committee according to this to secure the transparency and independence. The role and right of the Audit Committee is organized by meeting the requirements of the Audit Committee defined by the US Sarbanes-Oxley Act. In addition, an outside director, Kim Jaeshin, was appointed as the chairman of the Audit Committee, who is the accounting/financial professional(CPA) to secure the expertise of the Audit Committee.

An outside director, Park Hyosung, a company professional who was the senior researcher and research fellow in the Harvard Kennedy School, companies, and governmental R&D center was appointed, and an outside director, Choi Youngho who was the expert committee member of the Presidential Committee for Balanced National Development and the chairperson of the Steering Committee of the Gwangju Metropolitan Council and the Administrative Autonomy Committee, thereby striving to operate the Audit Committee effectively.

The Current Status of KEPCO Audit Committee

Name	Outside Director	Career	Expert of Accounting and Finance		
			Relevant	Type of experts	Related Experience
Kim Jaeshin	○	Current Certified Accountant at Saedure Accounting Firm Former Outside Director of the Korean Institute of Certified Public Accountants President of the Korean Institute of Certified Public Accountants	○	KCPA	'06. 3 ~'21. 7 Samduk Accounting Firm '21. 7 ~ Saedure Accounting Firm
Park Hyosung	○	Former Consul General of New York at the Ministry of Foreign Affairs Ambassador to Romania at the Ministry of Foreign Affairs Senior Researcher and researcher at the corporation and government research center of Harvard Kennedy School	-	-	-
Choi Youngho	-	Former Expert member at the Presidential Committee on Balanced National Development Operation director and President of Government Administration and Home Affairs Committee at Gwangju Metropolitan City Assembly	-	-	-

* Audit member No Geumsun (June 11, 2021, dismissed), Audit member Jung Yeongil (April 3, 2021, dismissed), Audit member Kim Jaeshin (July 9, 2021, appointed), Audit member Park Hyoseong (April 14, 2021, appointed)

KEPCO Audit Committee Training Status

Training date	Training leader	Attendee	Major training content
2021.11.25	KPMG accounting firm	Kim Jaeshin, Park Hyosung, Choi Youngho	Major changes in internal accounting management system and implication

Independent Audit

KEPCO defines the composition, position, and rights in the operation regulation of the Audit Committee and carries out audit duties. A standing auditor is appointed by the decision from shareholders' meeting after recommendation from the Executive Recommendation Committee and non-standing auditor is appointed by the decision from shareholders' meeting among outside directors, carrying out audit duties regarding executives independently. Also, we established the internal audit organization under the Audit Committee to separate from the executive agency, securing the independence.

The Current Status of KEPCO Audit Committee Support Organization

The name of department(team)	The number of employees	Position (years of service)	Major activities
Audit and inspection department	11	1 department head (1 year) 5 deputy head (1 year on average) 5 employees (1 year on average)	Operate the Audit Committee and Manage its own audit agency

Activities of the Audit Committee

KEPCO's Audit Committee carries out audit regarding duties and accounting and reports the result to the Board of Directors. When necessary, Audit Committee can require subsidiaries to report sales to carry out its duty and can investigate the duties and financial status of subsidiaries when reports need to be identified when subsidiaries do not report without delay. Audit Committee represents the company's right when the right of the company and the right of CEO are conflicted and carries out audit regarding approval of outside directors' appointment and matters stipulated by Articles of Association and other relevant laws.

Number	Date	Content of bill	Decision status (Approved)	Attendance (100%)
1	'21.1.15	[Resolution No.1] A consolidated company's outside auditor appointment approval (proposal) [Resolution No.2] Outside auditors' Pre-approval of non-audit service for consolidated companies (proposal) [Resolution No.3] 2021 Annual audit plan (proposal) [Report No.1] 2021 Annual audit training plan report [Report No.2] Outside auditor's annual independence report	Passed Passed Passed Accepted Accepted	Present
2	'21.2.19	[Resolution No.4] Financial statements and supplementary schedules (draft) and business report (draft) for fiscal 2020 [Report No.3] Report on operation conditions of the internal accounting management system for fiscal 2020 [Report No.4] Report on the evaluation results of operation conditions of internal accounting management system for fiscal 2020 [Report No.5] Report on the progress of end-of-year financial statements for outside auditors for fiscal 2020 [Report No.6] Report on annual audit results for 2020	Passed Accepted Accepted Accepted Accepted	Present
3	'21.3.12	[Resolution No.5] Survey results of proposals for the regular general meeting of shareholders [Resolution No.6] Audit report of regular general meeting of shareholders [Report No.7] Report on audit results for outside auditors for fiscal 2020	Passed Passed Accepted	Present
4	'21.4.16	[Resolution No.7] Appointment approval of outside auditors of consolidated companies (draft) [Resolution No.8] Prior approval of an outside auditor's non-audit service of consolidated companies (draft) [Report No.8] Report on the annual report for fiscal 2020 submitted to the U.S. securities and exchange commission [Report No.9] Report on external audit according to the U.S. accounting audit standards for fiscal 2020	Passed Passed Accepted Accepted	Present
5	'21.4.28	[Resolution No.9] Survey results of proposals for the extraordinary general meeting of shareholders	Passed	Present
6	'21.5.21	[Report No.10] Report on audit results for the first quarter of fiscal 2021 [Report No.11] Report on examination results of financial statements from outside auditors for the first quarter of fiscal 2021	Accepted Accepted	Present
7	'21.6.25	[Report No.12] Post evaluation of outside auditors for fiscal 2020 [Report No.13] Annual audit plan of outside auditors for fiscal 2021	Accepted Accepted	Present
8	'21.7.21	[Resolution No.10] Survey results of proposals for the extraordinary general meeting of shareholders [Resolution No.11] Plan for joint appointment of outside auditors for fiscal 2022 to fiscal 2024 [Report No.14] Report on audit progress of outside auditors and independence for fiscal 2021 [Report No.15] Report on accounting policy of cost-linked electricity rate system (draft)	Passed Passed Accepted Accepted	Present
9	'21.8.20	[Resolution No.12] Appointment approval of outside auditors of consolidated companies (draft) [Resolution No.13] Appointment of chairman of Audit Committee (draft) [Resolution No.14] Revision of operation guidelines regarding whistleblower process and protection process (draft) [Resolution No.15] Implementation of reward for the excellent performance of audit activities for the first half of the year (draft) [Report No.16] Report on audit results for the second quarter of 2021 [Report No.17] Report on examination results of financial statements from outside auditors for the half of fiscal 2021	Passed Passed Passed Passed Accepted Accepted	Present
10	'21.10.08	[Resolution No.16] Survey results of proposals for the extraordinary general meeting of shareholders [Resolution No.17] Revision of regulations including audit regulations and implementation guidelines (draft) [Resolution No.18] Face-to-face evaluation of joint appointment candidates of outside auditors for fiscal 2022 to 2024	Passed Passed Passed	Present
11	'21.10.15	[Resolution No.19] Appointment and wage of outside auditors for fiscal 2022 to 2024 (draft)	Passed	Present
12	'21.11.25	[Report No.18] Report on audit results for the third quarter of 2021 [Report No.19] Report on examination results of financial statements from outside auditors for the third quarter of fiscal 2021	Accepted Accepted	Present
13	'21.12.17	[Resolution No.20] Revision of implementation guideline of audit regulations (draft) [Resolution No.21] Appointment approval of outside auditors of consolidated companies (draft)	Passed Passed	Present

Taking the Lead in Ethical Compliance and Human Rights Management

01 Establish the Implementation System

KEPCO and group companies have their own system of ethical compliance / human rights management / fair trade and advance the system by discovering improvement every year

KEPCO

- Adopt the standard model of public institution ethical management of the Ministry of Finance and Economy, participate in the ethical business compliance program TF from the Anti-Corruption and Civil Rights Commission, and is selected as the pilot company
- Obtain the best grade among public institutions according to the 2021 comprehensive integrity assessment

Anti-Corruption and Civil Rights Commission's comprehensive integrity

2 Grade

(2019 fourth grade, 2020 third grade)

Anti-Corruption and Civil Rights Commission's Comprehensive integrity goal

Achieve 1 Grade

by 2026

Recognition rate of KHNP's Internal Reporting Center

78.3 %

(16.9 %p increased compred to previous year)

The number of consultation and reports on public ethics and human rights protection of KOMIPO

85 Cases

(7 cases increased compared to previous year)

04 Reporting and Rescue

We improved the accessibility and convenience of reporting channels of ethical compliance and human rights infringement. We ensure the confidentiality and operate the rescue plan that is reliable.

KHNP

- To revitalize the internal reporting and protect reporters, it carries out mock training
- Establish the proxy reporting system through outside professionals

KOMIPO

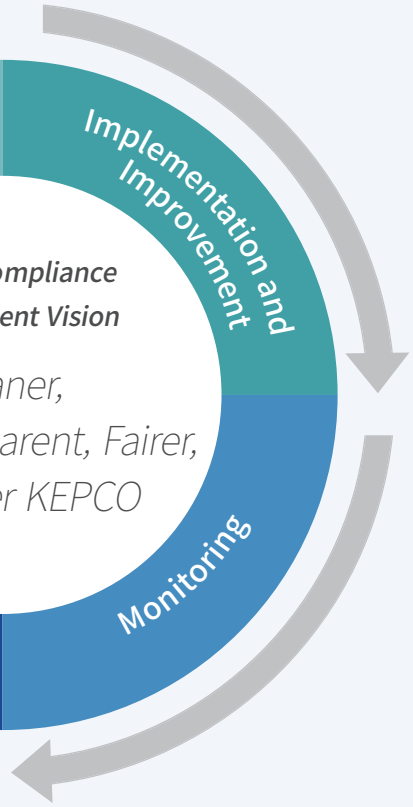
- Improve the interest conflicts reporting system, encourage outside professionals to participate in safe reporting
- Achieve anti-corruption of Anti-Corruption and Civil Rights Commission

02 Internalization and Awareness Improvement

While we operate various training programs to create the respectful and thoughtful culture between Members, we strive to discover new corruption and human rights risks and adopt prevention activities

KOWEPO

- Project promotion to eradicate the abuse of power by adopting 10 practical standards for seniors and 5 basic ethics.
- Form the human rights respect culture by raising the convenience of taking human rights courses and easing burden



Human rights course completion rate

98.3 %

(14.8%p increased compared to previous year)

Rate of the abuse of power at the workplace

0.1 %

(2.4%p decreased compared to previous year)

KOEN's abuse of power index

8.6 Points

(16% increased compared to previous year)

KOSPO's human rights management index

91.0 Points

(2.3 points increased compared to previous year)

03 Self-assessment and Monitoring

While we establish and operate various systems and regulations to create the transparent and efficient audit environment, we analyze and improve the vulnerabilities by carrying out our own monitoring as well as external monitoring

KOEN

- Discover potential human rights infringement factors and improve the human rights impacts index
- Raise the human rights management level by returning the human rights impacts assessment

KOSPO

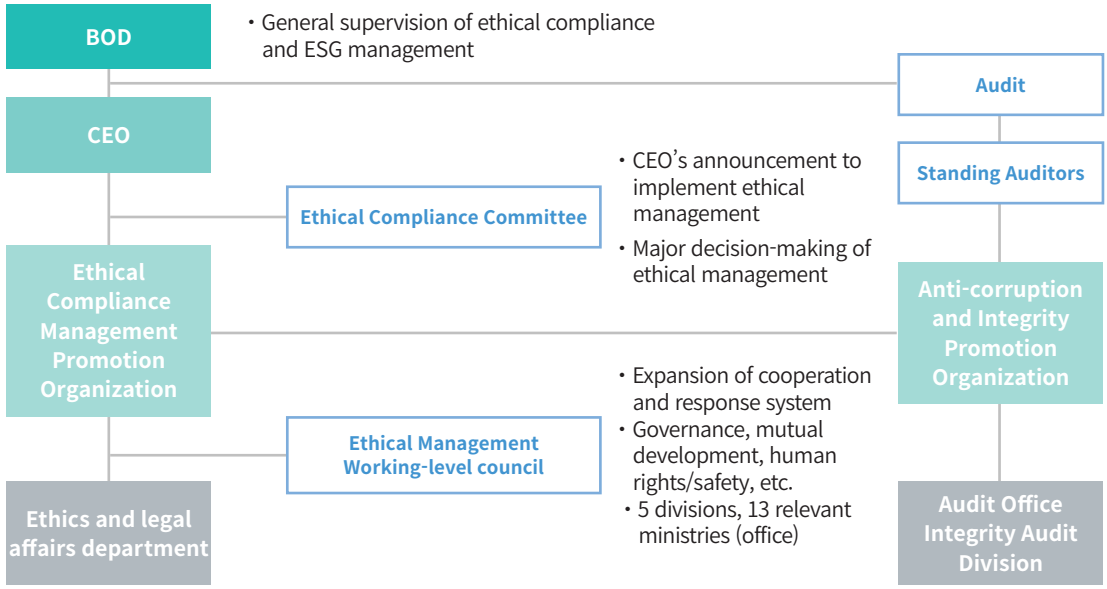
- Improve the regulations by preventing human rights risks
- Carry out human rights training and campaigns for internal and external stakeholders

Advancement of the Ethical Compliance Management

KEPCO has carried out ethical management in earnest from April 2003 and established the ethical management system appropriate for KEPCO's management conditions to establish the systematic and efficient ethical management. As the ethical guideline of the ethical management, KEPCO provides the basic principles of behaviors, establishes the step-by-step strategy by linking the KEPCO's vision and strategy to ethical management. Through the ethical management department, we are carrying out activities including reporting system, training programs, evaluation and compensation system.

Vision System of Ethical Compliance Management

Dedicated Organization for Ethical Compliance



- Level test of ethics and enactment and revision of ethical regulations
- Development and implementation of training for ethics and compliance
- General management of countermeasures to eradicate the abuse of power

- General management of the policy to prevent corruption
- Integrity evaluation business
- Anti-corruption regulation improvement business
- Anti-corruption and integrity training business
- Anti-corruption and integrity training business

Ethical Regulation system

KEPCO's Ethical Charter	A declarative standard to implement ethical management	1996. 2 regulated, revised in July 2022
Employees' Codes of Conduct	Behavior standards that should be observed by all employees	2003. 5. regulated, 2020. 5. 23th revised
Employees' Action Guide	Detailed implementation standards for relevant officials and action guide for overseas companies regarding contract duties	2003. 5. regulated, 2020. 5. 7th revised
Operation Regulations for the Executives' Job Integrity Contracts	Head of HQ who is an inside director or a person equivalent to inside director according to the integrity obligation of executives	2007. 1. regulated, 2010. 6. 3rd revised
Providers' Codes of Conduct	Ethical guideline that should be observed by providers (ethical, social, environmental standards)	2012. 6. regulated

Stricter Ethical Compliance Management

We signed the 'Ethical Compliance Management Certification Pilot Company MOU' and adopted the 'Ethical Compliance Management Certification System', announcing that our company will implement the ethical management. Ethical compliance management certification is the governmental monitoring and evaluation system that allows public institutions to establish the ethical management system and prevent, identify, and improve corruption risks in accordance with the international anti-corruption standard. Certification is approved by adopting the ethical management compliance program(K-CP) and screening them. Through the certification system, KEPCO is taking the lead in 5 topics, including the establishment of K-CP's environment, corruption risk mapping, prevention and management of corruption risks, monitoring and improvement, sanctions and incentives.

Ethical Compliance Management Certification Pilot Company MOU

Support the Ethical Compliance Consultation and Operate the Prior Consulting System

KEPCO is operating the ethical compliance support system in the internal control system to support the employees' ethical compliance management. An ethics/integrity implementation leader, a code of conduct officer, and an anti-solicitation officer are supporting the ethical consultation and an in-house lawyer and legal advisors are supporting compliance-related consultation. In addition, 'Prior Consulting System' supports the compliance duties and expands the prevention audit function.

Expansion of Anti-corruption Management System Certification (ISO 37001)

Adoption of certification (~2020)
- Certification for the first time in HQ
- Pilot operation in two headquarters

Adoption preparation (~Sep. 2021)
- Launch the TF for implementation
- Discover corruption risks

Expansion in the enterprise (Oct. 2021)
- Operate the system in the enterprise
- Discover improvement tasks and implement them

Certification completion (Nov. 2021)
- Complete the suitability certification
- Establish the sustainable management system

Big Data-based Effective Anti-corruption Monitoring

KEPCO strives to prevent violation in advance by establishing the anti-corruption monitoring system. While we focused on chronic corruption like bribery, we are managing the new corruptions, such as abuse of power and unfair exercise of authority, to raise the effectiveness. We stay away from collecting information passively or carrying out audit by depending on human resources, we monitor the situation and prevent corruption in advance based on big data-based anti-corruption monitoring system by identifying corruption signs in advance and signaling them.

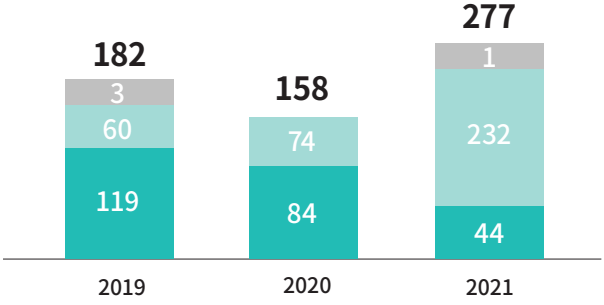
Revitalize the Reporting Channel and Protect Whistleblowers

KEPCO allows internal and external stakeholders to get consultation or report regarding violation of ethical compliance matters. Reporting channels for corruption (irrationality) consist of e-people, irrationality anonymous reporting system, report system for abuse of power, K-Whistle. The KEPCO website discloses the reception status by reporting channel, detailed information about misconducts, result of disciplinary actions transparently. In addition, the identity and reporting-related information should not be disclosed without approval from whistleblowers according to the Act on Anti-corruption and the Establishment and Operation of the Anti-corruption & Civil Rights Commission and the audit department takes disciplinary actions after identifying the situation when the information is disclosed without approval.

Reception by Reporting Channel

(Unit : Case)

Reporting channel	Reporting method
Internal voluntary reporting	Online (Intranet)
Irrationality reporting center	Online (Intranet)
Anonymous reporting system	Online (Intranet)



Prevent Interest Conflicts in Carrying out Duties

Act on the Prevention of Conflict of Interest Related to Duties of Public Servants prevents public servants pursuing the private interests related to their duties, banning the interest conflicts that may arise while carrying out duties and ensuring the fair duty performance to secure the reliability from the public. The act consists of 10 detailed conducts and each of them are divided into reporting and submission obligation and restriction and prevention conducts. It was legislated on May 18, 2021 and will be implemented on May 19, 2022. KEPCO established the preemptive response system before implementing it in earnest to make sure that employees raise their awareness toward the act and implement them.

10 Detailed Conducts to Prevent Interest Conflicts

Reporting and submission obligation	Prevent interest conflicts in carrying out duties
① Avoid reporting private stakeholders ② Report possession and purchase of real assets related to duties of public institutions ③ Report the trade with people related to duties ④ Report private contacts with retired people ⑤ Submit work activities of high-ranking officials in private sector	⑥ Prevent recruiting family members ⑦ Prevent private contract ⑧ Restrict external activities related to duties ⑨ Prevent the private use of public institutions ⑩ Prevent the use of confidentiality in the job

First of all, we evaluated the awareness level related to the act to figure out whether they know about important matters and allowed public servants to discover and strengthen the necessary matters for initial establishment. As a result, 46% of employees responded that they understand the act, 32 % responded that they understand the 10 detailed conducts, 49 % understand the private interests, 34% understand the reporting process. Most of them responded that promotion and training should be strengthened to raise the awareness and establish the system initially.

Accordingly, we raised the awareness by operating customized training program and pledges for stakeholders and support the expansion of the culture of integrity by signing the convention on the prevention of conflict of interest for internal and external stakeholders. For high-ranking servants, the vice-chairman of the Anti-Corruption and Civil Rights Commission was invited to give a lecture regarding the act. For employees, we encouraged them to take the course of 'Understandable Act on the Prevention of Conflict of Interest Related to Duties of Public Servants'. 99.5% of them completed the course. By implementing the mock training regarding the reporting method and process measures when interest conflicts take place, we allowed 582 employees to participate in the training. By doing so, there has been no violation regarding the interest conflicts as the result of our five times of own violation inspection

Develop the risk level measurement tool	Carry out inspection and analysis	Select dangerous positions	Establish and implement the management
• Benchmark the government and other institutions • Develop the risk level checklist	• Carry out job analysis • Listen to internal and external stakeholders	• Discover five dangerous positions • Calculate fee and construct the track	• Monitor the obligation of a person who performs duties • Carry out regular inspection and training

✓ Reporting channel (interest conflicts and solicitation prevention hot-line)
✓ Open the 1 to 1 consultation channel (Q&A)
✓ Professional reference library (self-monitoring tool is provided)
✓ Self-monitoring: regularly inspects the checklist for interest conflicts
✓ Special inspection: Self-inspection of violations regarding interest conflicts prevention conducted by the audit office

Voluntary Compliance with Fair Trade

Operate the Fair Trade Autonomous Compliance Program

KEPCO adopted the CP(Compliance Program) in December 2020 and announced the will to implement it. Fair trade compliance program means that companies regulate and operate the internal compliance system in training and monitoring to comply with fair trade-related laws. After adopting the program, we have established the management system by designating the general autonomous compliance manager(chief of legal affairs) and a dedicated department(law office) and appointing 24 members of the Autonomous Compliance Conference. In the process, 12 departments related to customers, subcontractors, and contract attended and we held the Autonomous Compliance Conference in April 2021 and implemented the 'Pledge for Fair Trade Compliance Implementation'. In addition, our company launched the ''Consultative Body for Public Institutions' Contract Work' to establish the organic cooperative channel. Currently, the consultative body is being operated for 9 public institutions in Naju innovation city and will be expanded to other institutions going forward. Likewise, KEPCO strives to establish the fair and transparent trade culture.

Implement Fair Trade Training and Internal Monitoring

KEPCO is carrying out systematic training for effective operation of fair trade compliance program. An in-house lawyer carried out training regarding fair trade, such as unfair behaviors and violations and compliance guideline for 331 contract officials.

Also, an outside professional such as Fair Competition Federation was required to take a total of 7 outsourced lectures regarding fair trade-related issues and regulations. In addition to that, we conducted the internal monitoring to inspect the trade system and situation for all operations regarding unfair practices and abuse of power. A total of 89 matters, including unpaid delayed interest, have been taken care of. Our company also conducts monitoring regarding the violation of laws when implementing business or enacting or amending work standards. KEPCO endeavors to realize the fair economy by improving unreasonable factors in the whole trade process.

Fair Trade and Anti-corruption of Subcontractors

KEPCO ensures the rights of subcontractors and helps establish the mutual trade model by raising the transparency of contract process for fair trade with subcontractors. To secure safety of subcontractors, we established the system to give extra points when subcontractors obtain ISO45001 (Safety and Health) when it is eligible and regulated the safety guideline and safety management table for service providers. To operate the fair contract system and promote transparency, we established the estimated price calculation system and computerized a bid, improving the unreasonable factors when writing the estimated price manually. In addition, the retired person in terms of prevention of contacts with retired people is within 2 years from the retirement date, thereby eradicating unfairness.

Operate the Internal Control System

KEPCO's internal control system consist of 'Autonomous Compliance' for prior prevention and 'Internal Audit' activities centered around follow-up audit. It consists of detailed content to make sure that internal check is carried out. We raise the reliability of consolidated financial information by establishing the internal accounting system collectively.

Internal Audit Implementation Activities

<table>
<tr><td>Plan</td><td colspan="2">Audit vision</td><td>Mid-long Term Audit Strategy</td><td colspan="4">Annual Audit Plan</td></tr>
<tr><td rowspan="3">Operate</td><td colspan="3">Internal Audit System</td><td colspan="4">External Audit</td></tr>
<tr><td colspan="3">Infrastructure building
(strengthening expertise / raising independence)</td><td>Ombudsman, National auditor</td><td>Audit Advisory Committee</td><td>Outside deliberation members</td><td>The accusation system</td></tr>
<tr><td>Comprehensive audit
Special audit</td><td>General audit
Financial audit</td><td>Performance audit
Service audit</td><td>• civil complaint analysis
• improvement opinions</td><td>• Advise the audit-related matters</td><td>• Raise the fairness about audit result</td><td>• Reporting center for irrational actions</td></tr>
<tr><td>Analysis and Review</td><td>Performance Analysis</td><td>Internal Evaluation</td><td colspan="4">External Evaluation</td></tr>
<tr><td></td><td>Report the quarterly performance to the Audit Committee and BOD</td><td>Survey of audit satisfaction regarding internal audit quality (general/daily)</td><td colspan="4">Evaluation of integrity level and anti-corruption policies
Evaluation of The Board of Audit and Inspection of Korea</td></tr>
</table>

Internalization of the Respect for Human Rights

KEPCO established the human rights management system and established and implemented the 'KEPCO Human Rights Management Implementation Plan' to create the work environment without discrimination and respond to international community's request for human rights protection actively. KEPCO respects and supports the international standards regarding human rights and labor, including Universal Declaration of Human Rights and UN Guideline Principles on Business and Human Rights : Ruggie Framework, striving to protect stakeholders including employees in the whole management process.

Human Rights Management Implementation System

Establish the human rights management policy	Self-inspection system for human rights risks	Self-inspection of human rights risks	Discover and identify human rights risks	Disclose the improvement support and performance
Analyze the national laws and global standards	Design the inspection indicators	Implement self-inspection checklist	Discover improvements and establish the implementation measures	Disclose internally and externally through the website

Human Rights Management Announcement

As the energy leading company, while KEPCO actively implements the human rights management that focuses on respect and values for humans in all business activities, we announced the human rights management announcement to prevent the human rights risks of all stakeholders related to business operation. The announcement highlights the responsibility of human rights respect for customers, employees, partners, and local communities. Also, it promises to comply with human rights-related international standards and compliance, prohibition of discrimination, prohibition of child labor and forced labor, creation of safe working conditions, guarantee of collective bargaining and freedom of association, environment protection and pollution prevention, personal information protection, thereby focusing on customers' value, human rights of residents, mutual development, and fair treatment for business partners.

Implementation Guideline for Human Rights Management

KEPCO suggests 10 implementation guidelines by area according to the 'Human Rights Management Announcement'. In the 'code of conducts of providers' that should be observed by all providers and subcontractors, human rights-related requirements such as prohibition of child labor, prohibition of discrimination by race, religion, gender, physical ability, freedom of assembly, provision of safety equipment, creation of safe working condition. Other than this, we endeavor to prevent human rights infringement factors through ethical charter, codes of conduct for employees, action guidelines for employees.

Human Rights Management Inspection

Utilizing 'Human Rights Management Checklist' consisting of 33 detailed items in 10 areas according to the 'UN Human Rights Guideline' and 'Human Rights Management Guideline' from the National Human Rights Commission of Korea, KEPCO carries out self-inspection of human rights infringement factors. As a result, human rights risks in KEPCO have not been identified. Going forward, we will spread the revision of human rights management implementation guideline to all operations and group company, thereby carrying out self-inspection regularly and managing the human rights risks preemptively.

Composition of Human Rights Management Checklist

• Establish the human rights management system	• Ensure the industrial safety
• Non-discrimination in employment	• Manage supply chains
• Freedom of association and negotiation	• Protect human rights of the local residents
• Prohibition of forced labor	• Ensure the environmental right
• Prohibition of child labor	• Protect the human rights of customers

Active Response to Human Rights Issues

Raise the Human Rights Awareness

As KEPCO is aware of the importance of respect for human rights and prevention of human rights risks, we established the cooperative system between departments to select human rights-related tasks and implement them. In particular, as the result of human rights inspection, we are taking actions to improve awareness regarding major human rights issues discovered. With regard to sexual harassment and sexual assault, we conducted the customized training for mangers, counselors, and new employees and implemented the training for prevention of workplace harassment. Regarding the organization culture, our company expanded the junior board operation, the communication channel between MZ generation and old generation, by 4-fold compared to previous year. Also, we are raising the human rights awareness by making books and videos for organization culture, thereby expanding training and communication regarding human rights.

Identify and Respond to Human Rights Issues

In terms of potential human rights issues, gender parity (discrimination), sexual harassment and sexual assault (harassment), and mental health issues have been identified for employees. For subcontractors, safety accidents, discrimination and disadvantages (inhumane treatment) have been identified. Also, noise and environmental pollution issues have been identified in the local community. KEPCO will keep complementing the standards and process for human rights identification and identify the risk types, including forced labor, child labor, freedom of assembly, collective bargaining, discrimination, and risk ranges, including employees, women, children, immigrant workers, local communities

Potential Human Rights Issues and Response Activities by Stakeholder Type

Classification	Potential issues	Response activities
Employees	• Gender parity infringement • Sexual harassment and sexual assault • Mental health of employees	• Improve the organization culture and open the hot-line • Resolve sexual harassment and sexual assault and carry out customized training
Subcontractors	• Industrial accidents of workers • Discrimination and disadvantages for whistleblowers who reported unfair trade	• Discover and improve the vulnerabilities in safety, carry out safety training • Regulate protection charter of corporate complaints, adopt safe reporting system
Local community	• Safety of construction area and environmental pollution	• Construct the eco-friendly power facilities, carry out environmental effects evaluation • KEPCO 119 disaster rescue team for safety in local community

Regulate Human Rights Infringement

KEPCO newly established the relevant employment rules to prevent harassment in the workplace. The range of harassment in the workplace is the acts to suffer other employees or aggravates working condition inappropriately by abusing position and relations and it is strictly banned. KEPCO regulates that employees who are subject to investigation from the investigation agency due to their sexual harassment can lose their position by considering the seriousness according to the personnel management regulations. Furthermore, if employees are perpetrators of workplace harassment pursuant to Article 75 Subparagraph 8 of the Employment Rules, they are excluded from minor disciplinary action, promotion, and reward

Human Rights Rescue Process

Report of human rights violation	• Directly report to counselors through visit, call, document, online (reporters can report the case when they recognize damages even if it is not a direct damage)
Consultation	• Identify the situation and decide how to handle the situation, report the counselling result including identity of victims and confidentiality and process methods
Investigation and reporting	• Store the statement and evidence and ask investigation for the audit department by attaching investigation process and victims' opinions
(When necessary) Deliberation by Deliberation Committee	• Protect deliberation victims regarding the cases emerged in HQ and operations and give recommendation regarding secondary damage prevention and recurrence prevention measures
Case completion	• Monitor whether agreed matters are implemented and implement necessary follow-up measures (reoccurrence prevention, treatment) and report to the relevant person

4

Appendix

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Price
Avg '15
Vol
Real-Time
Weekly
Volatility Index

Financial Performance

The 61st : As of Dec. 31, 2021
The 60th : As of Dec. 31, 2020
The 59th : As of Dec. 31, 2019

Consolidated Statement of Financial Position

(Unit : KRW 1 Million)

	The 61st	The 60th	The 59th
Assets			
Current assets	22,050,845	20,561,941	19,483,001
Cash and cash equivalents	2,635,238	2,029,584	1,810,129
Current financial assets	1,868,796	2,800,220	1,586,509
Trade receivables and other receivables	8,122,415	7,918,470	7,701,452
Inventory assets	7,608,182	6,742,909	7,050,700
Current corporate tax assets	41,344	49,675	99,718
Current non-financial assets	1,758,991	1,020,158	1,206,377
Estimated selling assets	15,879	925	28,116
Non-current assets	189,058,025	182,580,170	178,114,791
Non-current financial assets	2,909,810	2,472,821	2,563,498
Long-term trade receivables and other receivables	1,906,861	1,861,569	2,002,297
Tangible assets	173,119,781	168,709,387	164,701,827
Invested properties	212,784	225,195	158,580
Goodwill	105,647	98,166	97,977
Intangible assets except goodwill	1,044,077	1,055,730	1,069,976
Invested shares of associates	5,232,373	4,250,787	4,251,802
Invested shares of joint ventures	2,239,011	1,919,746	1,663,029
Deferred corporate tax assets	20,871	7,231	1,047
Defined benefit assets	1,901,992	1,733,146	1,437,829
Non-current non-financial assets	364,818	246,392	166,929
Total assets	211,108,870	203,142,111	197,597,792
Liabilities			
Current liabilities	31,732,220	25,881,222	24,231,656
Trade payables and other payables	8,153,426	6,256,521	6,649,402
Current financial liabilities	14,037,125	10,724,689	8,930,903
Current corporate tax liabilities	229,460	476,898	358,277
Current non-financial liabilities	6,466,333	5,971,450	5,688,353
Current provisions	2,845,876	2,451,664	2,604,721
Non-current liabilities	114,064,801	106,594,043	104,476,487
Long-term trade payables and other payables	5,996,498	6,480,412	6,965,760
Non-current financial liabilities	66,570,419	59,365,011	59,115,598
Non-current non-financial liabilities	10,216,364	9,661,941	8,834,452
Employee benefits liabilities	1,679,158	1,910,860	1,929,854
Deferred corporate tax liabilities	7,100,938	9,100,247	8,564,775
Non-current provisions	22,501,424	20,075,572	19,066,048
Total liabilities	145,797,021	132,475,265	128,708,143
Equity			
Equity attributable to the owner of the parent	63,769,010	69,296,680	67,496,318
Paid-in capital	4,053,578	4,053,578	4,053,578
Capital share	3,209,820	3,209,820	3,209,820
Capital in excess of par value	843,758	843,758	843,758
Retained earnings	45,246,982	51,133,601	49,202,133
Legal reserve	1,604,910	1,604,910	1,604,910
Free reserve	33,282,817	32,179,066	34,785,425
Unappropriated retained earnings	10,359,255	17,349,625	12,811,798
Other components of equity	14,468,450	14,109,501	14,240,607
Other capital surpluses	1,231,109	1,224,105	1,226,364
Accumulated other comprehensive income	(57,632)	(409,577)	(280,730)
Other equity	13,294,973	13,294,973	13,294,973
Non-controlling interest	1,542,839	1,370,166	1,393,331
Total equity	65,311,849	70,666,846	68,889,649
Total equity and liabilities	211,108,870	203,142,111	197,597,792

Consolidated Comprehensive Statements of Income

(Unit : KRW 1 Million)

	The 61st	The 60th	The 59th
Earnings (Sales proceeds)	60,574,819	58,569,314	59,172,890
Sales proceeds from selling goods	58,702,209	56,684,312	56,894,876
Sales proceeds from providing services	456,400	429,350	408,290
Sales proceeds from construction contracts	754,998	812,175	1,264,916
Sales proceeds from customer's contribution to construction costs	661,212	643,477	604,808
Cost of sales	63,559,178	51,804,596	57,779,835
Cost of sales from selling goods	62,079,313	50,353,315	55,750,468
Cost of sales from providing services	580,902	441,851	1,030,601
Cost of sales from construction contracts	898,963	1,009,430	998,766
Gross profit (loss)	(2,984,359)	6,764,718	1,393,055
Selling and administrative expenses	2,875,784	2,678,443	2,669,576
Operating income (loss)	(5,860,143)	4,086,275	(1,276,521)
Other earnings	372,921	392,971	393,165
Other expenses	257,932	417,720	241,913
Other income (loss)	8,519	35,094	(582,258)
Financial income	1,402,614	1,510,249	1,009,706
Financial cost	3,245,777	2,896,443	2,782,156
Income (loss) in relation to associates, joint ventures and subsidiaries	494,584	281,107	214,139
Profits on valuation of invested shares of associates and joint ventures	775,588	398,972	257,673
Profits on disposition of invested shares of associates and joint ventures	1,844	10,165	70,094
Loss on valuation of invested shares of associates and joint ventures	(218,532)	(119,848)	(90,853)
Loss on disposition of invested shares of associates and joint ventures	(64,119)	(16)	(2)
Impairment loss on invested shares of associates and joint ventures	0	(1,556)	(22,517)
Loss on disposition of invested shares of subsidiarie	(197)	(6,610)	(256)
Net income (loss) before income tax	(7,085,214)	2,991,533	(3,265,838)
Income tax expense	(1,855,989)	899,064	(1,002,303)
Profit (loss) for the year	(5,229,225)	2,092,469	(2,263,535)
Other comprehensive income (loss)	599,614	(219,841)	135,196
Items that will not be reclassified subsequent to income (loss)	273,042	(75,155)	23,794
Re-measurements of defined benefit plans	210,409	(69,804)	42,315
Shares of other comprehensive income (loss) of associates and joint ventures subjected to equity method	3,609	3,181	(6,789)
Other comprehensive income (loss)-valuation loss (gain) of financial asset at fair value	59,024	(8,532)	(11,732)
Items that will be reclassified subsequent to income (loss)	326,572	(144,686)	111,402
Cash flow hedges (other comprehensive income (loss) after tax)	(15,778)	64,561	19,242
Difference in overseas business transaction exchanges	41,189	(76,442)	72,816
Shares of other comprehensive income (loss) of associates and joint ventures subjected to equity method (other comprehensive income (loss) after tax)	301,161	(132,805)	19,344
Total comprehensive income	(4,629,611)	1,872,628	(2,128,339)
Net income (loss) attributable to :			
Current income (loss) attributable to the owner of the parent	(5,315,055)	1,991,347	(2,345,517)
Current income attributable to non-controlling interest	85,830	101,122	81,982
Comprehensive income (loss) attributable to :			
Comprehensive income attributable to the owner of the parent	(4,754,046)	1,802,824	(2,239,147)
Comprehensive income attributable to non-controlling interest	124,435	69,804	110,808
Earnings per share			
Basic earnings (loss) per share (unit : KRW)	(8,279)	3,102	(3,654)
Diluted earnings (loss) per share (unit : KRW)	(8,279)	3,102	(3,654)

Financial Performance

Consolidated Statement of Changes in Equity

(Unit : KRW 1 Million)

		Equity					
		Equity attributable to the owner of the parent					
		Paid-in capital	Earned surplus	Other equity	Total equity attributable to the owner of the parent	Onn-controlling interests	Total equity
Jan. 01, 2019 (Beginning capital)		4,053,578	51,519,119	14,171,228	69,743,925	1,348,837	71,092,762
Current net income (loss)			(2,345,517)		(2,345,517)	81,982	(2,263,535)
Other comprehensive income that will not be reclassified subsequent to income	Re-measurements of defined benefit plans		36,160		36,160	6,155	42,315
	Shares of other comprehensive income of associates and joint ventures subjected to equity method		(6,789)		(6,789)		(6,789)
	Other comprehensive income (loss)-valuation loss (gain) of financial asset at fair value			(11,732)	(11,732)		(11,732)
Other comprehensive income that will be reclassified subsequent to income	Valuation loss (gain) of derivatives for cash flow hedges			14,041	14,041	5,201	19,242
	Difference in overseas business transaction exchanges			55,347	55,347	17,469	72,816
	Shares of other comprehensive income of associates and joint ventures subjected to equity method			19,343	19,343	1	19,344
Transaction with shareholders	Dividends paid					(99,255)	(99,255)
	Paid-in capital increase, etc.					21,071	21,071
	Capital transactions in consolidated entities			(8,460)	(8,460)	323	(8,137)
	Changes in consolidated entities					24,932	24,932
	Dividends of hybrid securities					(13,385)	(13,385)
	Others		(840)	840			
Dec. 31, 2019 (Ending capital)		4,053,578	49,202,133	14,240,607	67,496,318	1,393,331	68,889,649
Jan. 01, 2020 (Beginning capital)		4,053,578	49,202,133	14,240,607	67,496,318	1,393,331	68,889,649
Current net income (loss)			1,991,347		1,991,347	101,122	2,092,469
Other comprehensive income that will not be reclassified subsequent to income	Re-measurements of defined benefit plans		(62,857)		(62,857)	(6,947)	(69,804)
	Shares of other comprehensive income of associates and joint ventures subjected to equity method		3,181		3,181		3,181
	Other comprehensive income (loss)-valuation loss (gain) of financial asset at fair value			(8,533)	(8,533)	1	(8,532)
Other comprehensive income that will be reclassified subsequent to income	Valuation loss (gain) of derivatives for cash flow hedges			58,523	58,523	6,038	64,561
	Difference in overseas business transaction exchanges			(46,032)	(46,032)	(30,410)	(76,442)
	Shares of other comprehensive income of associates and joint ventures subjected to equity method			(132,805)	(132,805)		(132,805)
Transaction with shareholders	Dividends paid					(81,011)	(81,011)
	Paid-in capital increase, etc.			(148)	(148)	(5,297)	(5,445)
	Capital transactions in consolidated entities		(203)	(2,111)	(2,314)	1,040	(1,274)
	Changes in consolidated entities					5,684	5,684
	Dividends of hybrid securities					(13,385)	(13,385)
	Others						
Dec. 31, 2020 (Ending capital)		4,053,578	51,133,601	14,109,501	69,296,680	1,370,166	70,666,846

Consolidated Comprehensive Statements of Income

(Unit : KRW 1 Million)

		Equity					
		Equity attributable to the owner of the parent					
		Paid-in capital	Earned surplus	Other equity	Total equity attributable to the owner of the parent	Onn-controlling interests	Total equity
Jan. 01, 2021 (Beginning capital)		4,053,578	51,133,601	14,109,501	69,296,680	1,370,166	70,666,846
Current net income (loss)			(5,315,055)		(5,315,055)	85,830	(5,229,225)
Other comprehensive income that will not be reclassified subsequent to income	Re-measurements of defined benefit plans		201,067		201,067	9,342	210,409
	Shares of other comprehensive income of associates and joint ventures subjected to equity method		3,609		3,609		3,609
	Other comprehensive income (loss)-valuation loss (gain) of financial asset at fair value			59,022	59,022	2	59,024
Other comprehensive income that will be reclassified subsequent to income	Valuation loss (gain) of derivatives for cash flow hedges			(19,610)	(19,610)	3,832	(15,778)
	Difference in overseas business transaction exchanges			15,760	15,760	25,429	41,189
	Shares of other comprehensive income of associates and joint ventures subjected to equity method			301,161	301,161		301,161
Transaction with shareholders	Dividends paid		(780,628)		(780,628)	(31,516)	(812,144)
	Paid-in capital increase, etc.			(491)	(491)	75,702	75,211
	Capital transactions in consolidated entities			7,452	7,452	(42,199)	(34,747)
	Changes in consolidated entities			43	43	59,636	59,679
	Dividends of hybrid securities					(13,385)	(13,385)
	Others		4,388	(4,388)			
Dec. 31, 2021 (Ending capital)		4,053,578	45,246,982	14,468,450	63,769,010	1,542,839	65,311,849

Financial Performance

Consolidated Statement of Cash Flows

(Unit : KRW 1 Million)

	The 61st	The 60th	The 59th
Cash flows from operating activities	4,473,186	13,208,473	8,213,428
Current net income (loss)	(5,229,225)	2,092,469	(2,263,535)
Total adjustment to reconcile income (loss)	14,468,510	16,316,676	15,769,297
Corporate tax expense	(1,855,989)	899,064	(1,002,303)
Depreciation	11,772,111	11,377,553	10,971,825
Amortization on intangible assets	166,161	170,466	156,915
Retirement allowance	511,942	492,288	725,120
Bad debt expenses	67,242	50,686	16,629
Interest expenses	1,914,457	1,995,425	2,046,811
Loss on disposition of financial assets	1,045	648	2,106
Loss on disposition of tangible assets	92,622	162,725	72,508
Loss on destruction of tangible assets	207,934	255,346	364,233
Impairment loss on tangible assets	4,056	80,413	50,034
Impairment loss on intangible assets	0	3,599	513,609
Loss on disposition of intangible assets	145	392	827
Provision for allowances	2,466,452	1,832,765	2,301,215
Foreign currency translation gain and loss	997,119	(782,167)	370,309
Current gains (losses)-valuation gains of financial asset at fair value	(14,338)	(12,904)	(5,575)
Current gains (losses)-valuation losses of financial asset at fair value	5,480	7,396	4,513
Gains (losses) on derivatives	(907,076)	390,322	(403,765)
Profits on valuation of invested shares of associates and joint ventures	(557,056)	(279,124)	(166,820)
Current gains (losses)- Profits on disposition of financial asset at fair value	(7,718)	(11,992)	(3,866)
Reversal of Impairment loss on tangible assets	(14)	0	0
Profits on disposition of tangible assets	(56,284)	(93,195)	(43,784)
Profits on disposition of intangible assets	(1)	(1,556)	(206)
Profits on disposition of invested shares of associates and joint ventures	(1,844)	(10,165)	(70,094)
Loss on disposition of invested shares of associates and joint ventures	64,119	16	2
Impairment loss on invested shares of associates and joint ventures	0	1,556	22,517
Losses on disposition of invested shares of subsidiaries	197	6,610	256
Interest revenues	(221,874)	(242,586)	(268,118)
Dividends income	(10,522)	(7,316)	(13,838)
Others	(169,856)	30,411	128,237
Changes in assets and liabilities due to operating activities	(2,312,726)	(2,889,305)	(3,192,650)
Increase (decrease) of trade receivables	(216,734)	(107,639)	95,345
Increase (decrease) of other trade receivables	869,870	459,524	64,027
Increase (decrease) of uncollected income	(17,918)	(258,963)	83,589
Increase (decrease) of other securities	24,306	(32,536)	(116,583)
Increase (decrease) of other current assets	(569,732)	(462,125)	(271,986)
Increase (decrease) of inventory assets	(1,738,000)	(723,495)	(980,216)
Increase of other non-current assets	(3,462)	(140,017)	(611,066)
Increase (decrease) of trade payables	2,144,561	(262,985)	(546,159)
Increase (decrease) of payables	(571,051)	(363,260)	192,506
Increase (decrease) of accrued expenses	(456,992)	(222,113)	(454,501)
Increase (decrease) of other current liabilities	379,378	388,163	373,403
Increase (decrease) of other non-current liabilities	458,007	755,005	650,468
Decrease of invested shares of associates and joint ventures	288,242	237,695	215,612
Increase (decrease) of provisions	(2,426,017)	(1,499,436)	(1,473,461)
Increase (decrease) of employee benefits liabilities	(159,477)	(74,848)	(65,242)
Paid-in plan assets	(317,707)	(582,275)	(348,386)
Reception of dividends	10,522	7,316	24,255
Payment of interest	(1,928,160)	(2,081,663)	(2,027,850)
Reception of interest	201,022	215,183	186,122
Payment of corporate tax	(736,757)	(452,203)	(282,211)
Cash flows from investing activities	(12,354,328)	(14,831,811)	(13,499,358)

Consolidated Statement of Cash Flows

(Unit : KRW 1 Million)

	The 61st	The 60th	The 59th
Decrease of invested shares of associates and joint ventures	288,242	237,695	215,612
Increase (decrease) of provisions	(2,426,017)	(1,499,436)	(1,473,461)
Increase (decrease) of employee benefits liabilities	(159,477)	(74,848)	(65,242)
Paid-in plan assets	(317,707)	(582,275)	(348,386)
Reception of dividends	10,522	7,316	24,255
Payment of interest	(1,928,160)	(2,081,663)	(2,027,850)
Reception of interest	201,022	215,183	186,122
Payment of corporate tax	(736,757)	(452,203)	(282,211)
Cash flows from investing activities	(12,354,328)	(14,831,811)	(13,499,358)
Disposition of invested assets of associates	4,472	5,444	0
Acquisition of invested assets of associates	(673,017)	(342,116)	(107,821)
Disposition of tangible assets	277,998	331,777	522,742
Acquisition of tangible assets	(12,668,534)	(13,281,294)	(14,000,359)
Disposition of intangibles assets	59	10,871	7,702
Acquisition of intangible assets	(113,100)	(120,371)	(229,426)
Disposition of financial assets	7,023,674	8,020,406	2,783,474
Acquisition of financial assets	(5,893,404)	(9,203,450)	(2,165,342)
Increase of loans	(223,950)	(336,744)	(335,773)
Decrease of loans	218,704	215,292	292,745
Increase of guarantee money	(222,924)	(276,255)	(280,637)
Decrease of guarantee money	166,066	280,941	275,314
Disposition of assets held-for-sale	1,148	32,578	30,662
Reception of government subsidies	37,920	41,209	21,705
Cash outflows due to merger	0	0	(154,311)
Net cash flows (in and out) due to changes of the scope of consolidation	(63,492)	(24,624)	(2,917)
Net cash flows (in and out) due to other investing activities	(225,948)	(185,475)	(157,116)
Cash flows from financing activities	8,435,077	1,880,824	5,775,407
Net borrowing short-term loans (repayment)	1,621,440	345,338	188,957
Bonds and borrowing long-term loan	17,392,311	10,170,107	13,221,407
Repayment of bonds and long-term loans	(9,360,357)	(7,976,658)	(7,068,290)
Repayment of capital lease liabilities	(572,036)	(613,977)	(573,437)
Net settlement of derivatives	98,068	42,263	102,146
Net cash inflows from consolidated capital transactions	90,096	11,554	17,365
Dividends paid for hybrid securities	(13,385)	(13,385)	(13,385)
Dividends paid	(812,159)	(81,298)	(99,356)
Net cash outflows from other financing activities	(8,901)	(3,120)	0
Net increase (decrease) of cash and cash equivalents before reflecting the effects of changes in foreign exchange rates	553,935	257,486	489,477
Effects of changes in foreign exchange rates on cash and cash equivalent inflows	51,719	(38,031)	(37,693)
Net increase (decrease) of cash and cash equivalents	605,654	219,455	451,784
Beginning cash and cash equivalents	2,029,584	1,810,129	1,358,345
Ending cash and cash equivalents	2,635,238	2,029,584	1,810,129

ESG Data (Overview)

Facility Capacity by Power Source (Capacity)

Corp	Category		Unit	2019	2020	2021	Remarks
Total	Hydroelectric Power	PHS	MW	4,700	4,700	4,700	
		General Hydropower	MW	595	595	595	
		Small Hydropower	MW	56	56	63	
	Steam Turbine Power	Anthracite	MW	600	400	400	
		Bituminous coal	MW	33,711	33,761	32,159	
		Heavy oil	MW	2,600	1,200	1,200	
		LNG	MW	-	1,400	1,400	
	Combined Cycle Power		MW	15,954	16,121	16,121	
	Internal Combustion Power		MW	341	176	177	
	Nuclear Power		MW	23,250	23,250	23,250	
	Combined Heat and Power		MW	530	530	530	
	Renewable Power		MW	-	10	10	
	Waste power		MW	1,335	1,654	1,854	
	Total		MW	83,672	83,853	82,459	

Generation by Power Source (Generation)

Corp	Category		Unit	2019	2020	2021	Remarks
Total	Hydroelectric Power	PHS	MWh	3,458,385	3,271,019	3,682,932	
		General Hydropower	MWh	842,229	1,075,634	927,736	
		Small Hydropower	MWh	176,026	154,971	151,241	
	Steam Turbine Power	Anthracite	MWh	2,592,225	2,094,210	1,853,783	
		Bituminous coal	MWh	209,193,368	176,714,012	170,565,608	
		Heavy oil	MWh	1,842,478	1,503,944	1,493,853	
		LNG	MWh	-	586,627	1,176,921	
	Combined Cycle Power		MWh	36,669,948	38,033,491	49,981,779	
	Internal Combustion Power		MWh	578,912	404,673	490,697	
	Nuclear Power		MWh	145,909,669	160,183,721	158,015,230	
	Combined Heat and Power		MWh	2,378,737	3,412,958	3,626,727	
	Renewable Power		MWh	-	70,839	65,846	
	Waste power		MWh	5,427,962	7,016,146	8,340,828	
	Total		MWh	409,069,939	394,522,245	400,373,182	
KEPCO	Hydropower	Small Hydropower	MWh	3,603	4,168	2,758	
	Internal Combustion Power		MWh	280,863	279,361	298,233	
	Renewable Power		MWh	898	961	948	
	Total		MWh	285,364	284,490	301,939	
KHNP	Hydropower	PHS	MWh	3,458,385	3,271,019	3,682,932	
		General Hydropower	MWh	842,229	1,075,634	927,736	
		Small Hydropower	MWh	30,864	37,582	35,702	
	Nuclear Power		MWh	145,909,669	160,183,721	158,015,230	시운전 포함
	Renewable Power		MWh	36,176	42,177	71,705	
	Total		MWh	150,277,323	164,610,133	162,733,305	
KOEN	Hydroelectric Power	Small Hydropower	MWh	65,435	59,288	56,794	
	Steam Turbine Power	Bituminous coal	MWh	60,418,532	47,988,072	41,986,322	
	Combined Cycle Power		MWh	2,310,320	2,190,502	2,333,351	
	Renewable Power		MWh	1,251,232	1,537,562	2,314,181	
	Total		MWh	64,045,519	51,775,424	46,690,648	

Corp	Category		Unit	2019	2020	2021	Remarks
KOMIPO	Hydroelectric Power	Small Hydropower	MWh	32,445	28,513	29,620	
	Steam Turbine Power	Bituminous coal	MWh	36,321,863	35,342,285	31,851,216	
	Combined Cycle Power		MWh	5,699,297	9,012,725	11,856,814	
	Internal Combustion Power		MWh	298,049	125,312	192,464	
	Combined Heat and Power		MWh	2,378,737	3,412,958	3,626,727	
	Other		MWh	-	70,839	65,846	
	Renewable Power		MWh	984,878	889,040	962,796	
	Total		MWh	45,715,269	48,881,673	48,585,482	
KOWEPO	Hydroelectric Power	Small Hydropower	MWh	3,318	3,187	8,469	
		Bituminous coal	MWh	35,149,332	29,624,653	31,593,400	
		Heavy oil	MWh	595,127	-	-	
		LNG	MWh	-	586,627	1,176,921	
	Combined Cycle Power		MWh	9,450,187	6,933,035	11,307,679	
	Renewable Power		MWh	1,304,460	2,827,435	2,950,841	
	Total		MWh	46,502,423	39,974,937	47,037,310	
KOSPO	Hydroelectric Power	Small Hydropower	MWh	16,370	8,487	13,449	
	Steam Turbine Power	Bituminous coal	MWh	38,439,284	29,481,532	33,367,185	
	Combined Cycle Power		MWh	11,349,086	12,575,949	16,083,901	
	Renewable Power		MWh	1,526,255	1,363,492	1,516,671	
	Total		MWh	51,330,995	43,429,459	50,981,206	
EWP	Hydroelectric Power	Small Hydropower	MWh	23,991	13,747	4,449	
	Steam Turbine Power	Anthracite	MWh	2,592,225	2,094,210	1,853,783	
		Bituminous coal	MWh	38,864,358	34,277,470	31,767,486	
		Heavy oil	MWh	1,247,351	1,503,944	1,493,853	
	Combined Cycle Power		MWh	7,861,058	7,321,281	8,400,034	
	Renewable Power		MWh	324,063	355,478	523,685	
	Total		MWh	50,913,046	45,566,130	44,043,291	

Creation of Social and Economic Value (Separate Standard)

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Sales Volume	GWh	520,499	509,270	533,431	
	Sales Account	KRW 100 Million	589,332	579,894	596,606	
	Operating Income	KRW 100 Million	(28,483)	27,851	(74,256)	
	Current Net Income	KRW 100 Million	(25,950)	19,515	(56,077)	
KHNP	Sales Volume	GWh	141,284	156,973	155,150	
	Sales Account	KRW 100 Million	89,691	99,389	93,244	
	Operating Income	KRW 100 Million	8,548	13,386	7,968	
	Current Net Income	KRW 100 Million	3,060	6,476	3,022	
KOEN	Sales Volume	GWh	60,432	48,742	43,949	
	Sales Account	KRW 100 Million	53,854	42,589	51,889	
	Operating Income	KRW 100 Million	1,176	(1,074)	164	
	Current Net Income	KRW 100 Million	410	(1,391)	(581)	
KOMIPO	Sales Volume	GWh	43,342	46,265	46,203	
	Sales Account	KRW 100 Million	44,354	42,934	52,633	
	Operating Income	KRW 100 Million	893	1,004	3,019	
	Current Net Income	KRW 100 Million	(284)	(299)	549	
KOWEPO	Sales Volume	GWh	44,244	37,749	44,559	
	Sales Account	KRW 100 Million	44,686	36,060	49,708	
	Operating Income	KRW 100 Million	747	(680)	(610)	
	Current Net Income	KRW 100 Million	(466)	(1,090)	(1,716)	

Corp	Category	Unit	2019	2020	2021	Remarks
KOSPO	Sales Volume	GWh	48,993	41,458	48,708	
	Sales Account	KRW 100 Million	50,849	40,159	56,720	
	Operating Income	KRW 100 Million	1,243	62	198	
	Current Net Income	KRW 100 Million	(413)	(176)	(1,134)	
EWP	Sales Volume	GWh	48,204	43,079	41,538	
	Sales Account	KRW 100 Million	48,560	41,554	47,430	
	Operating Income	KRW 100 Million	1,256	(817)	689	
	Current Net Income	KRW 100 Million	567	(654)	109	

Distributing Economic Values

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Labor cost and welfare benefits (Employees)	Total	KRW 100 Million	20,886	21,020	18,099	
		Salaries	KRW 100 Million	18,955	19,739	17,608	
		Retirement benefits	KRW 100 Million	1,128	468	216	
		Welfare benefits	KRW 100 Million	803	813	275	
	Partner purchase amount (Supply chain)	Total	KRW 100 Million	70,906	73,622	86,783	
		Cost of purchasing goods	KRW 100 Million	23,818	27,288	31,204	
		Construction cost	KRW 100 Million	36,825	40,156	42,332	
		Service cost	KRW 100 Million	10,263	6,178	13,247	
	Purchased power cost		KRW 100 Million	515,093	454,768	568,781	
	Dividends (Shareholders)		KRW 100 Million	-	7,806	7,806	
	Interest costs (Creditors)		KRW 100 Million	7,771	7,380	6,790	
	Contributors (Local communities)		KRW 100 Million	122	474	682	
	Taxes and dues (Government)		KRW 100 Million	361	387	524	
KHNP	Labor cost and welfare benefits (Employees)	Total	KRW 100 Million	10,562	11,155	11,084	
		Salaries	KRW 100 Million	8,003	9,000	8,859	
		Retirement benefits	KRW 100 Million	1,406	962	969	
		Welfare benefits	KRW 100 Million	1,153	1,193	1,256	
	Dividends (Shareholders)		KRW 100 Million	1,067	2,798	1,360	
	Interest costs (Creditors)		KRW 100 Million	3,368	3,352	3,294	
	Taxes and dues (Government)		KRW 100 Million	7,979	10,123	8,036	
KOEN	Labor cost and welfare benefits (Employees)	Total	KRW 100 Million	2,696	2,631	2,903	
		Salaries	KRW 100 Million	2,096	2,104	2,349	
		Retirement benefits	KRW 100 Million	384	279	295	
		Welfare benefits	KRW 100 Million	216	248	259	
	Partner purchase amount (Supply chain)	Total	KRW 100 Million	4,729	4,940	4,518	
		Cost of purchasing goods	KRW 100 Million	1,681	1,493	1,215	
		Construction cost	KRW 100 Million	2,302	2,653	2,516	
		Service cost	KRW 100 Million	746	794	787	
	Cost of purchasing power generation fuel		KRW 100 Million	37,212	27,606	35,623	
	Dividends (Shareholders)		KRW 100 Million	119	-	-	
	Interest costs (Creditors)		KRW 100 Million	1,148	1,026	1,017	
	Contributors (Local communities)		KRW 100 Million	50	90	48	
	Taxes and dues (Government)		KRW 100 Million	31	(46)	(346)	

Corp	Category		Unit	2019	2020	2021	Remarks
KOMIPO	Labor cost and welfare benefits (Employees)	Total	KRW 100 Million	2,757	2,997	2,917	
		Salaries	KRW 100 Million	2,324	2,350	2,401	
		Retirement benefits	KRW 100 Million	245	430	292	
		Welfare benefits	KRW 100 Million	188	217	224	
	Partner purchase amount (Supply chain)	Total	KRW 100 Million	5,107	11,061	8,240	
		Cost of purchasing goods	KRW 100 Million	2,211	6,073	5,542	
		Construction cost	KRW 100 Million	2,513	2,327	1,709	
		Service cost	KRW 100 Million	383	2,661	989	
	Cost of purchasing power generation fuel		KRW 100 Million	30,235	27,172	34,831	
	Dividends (Shareholders)		KRW 100 Million	-	-	247	
	Interest costs (Creditors)		KRW 100 Million	1,372	1,501	1,729	
	Contributors (Local communities)		KRW 100 Million	68	103	168	
	Taxes and dues (Government)		KRW 100 Million	(704)	(139)	138	
KOWEPO	Labor cost and welfare benefits (Employees)	Total	KRW 100 Million	2,656	2,771	2,961	
		Salaries	KRW 100 Million	2,135	2,320	2,471	
		Retirement benefits	KRW 100 Million	329	240	255	
		Welfare benefits	KRW 100 Million	192	211	235	
	Partner purchase amount (Supply chain)	Total	KRW 100 Million	4,961	5,119	4,708	
		Cost of purchasing goods	KRW 100 Million	1,458	1,390	1,408	
		Construction cost	KRW 100 Million	2,464	2,629	2,341	
		Service cost	KRW 100 Million	1,039	1,100	959	
	Cost of purchasing power generation fuel		KRW 100 Million	30,029	22,033	34,428	
	Dividends (Shareholders)		KRW 100 Million	3.2	2.1	12.9	
	Interest costs (Creditors)		KRW 100 Million	1,480	1,344	1,302	
	Contributors (Local communities)		KRW 100 Million	80	167	102	
	Taxes and dues (Government)		KRW 100 Million	308	279	345	
KOSPO	Labor cost and welfare benefits (Employees)	Total	KRW 100 Million	2,684	2,658	2,789	
		Salaries	KRW 100 Million	2,153	2,197	2,296	
		Retirement benefits	KRW 100 Million	342	253	267	
		Welfare benefits	KRW 100 Million	189	208	226	
	Partner purchase amount (Supply chain)	Total	KRW 100 Million	4,043	4,579	4,035	
		Cost of purchasing goods	KRW 100 Million	1,480	1,665	1,426	
		Construction cost	KRW 100 Million	1,802	1,980	1,705	
		Service cost	KRW 100 Million	761	934	905	
	Cost of purchasing power generation fuel		KRW 100 Million	33,926	25,864	40,169	
	Dividends (Shareholders)		KRW 100 Million	153	-	-	
	Interest costs (Creditors)		KRW 100 Million	1,397	1,242	1,181	
	Contributors (Local communities)		KRW 100 Million	48	79	42	
	Taxes and dues (Government)		KRW 100 Million	285	183	328	
EWP	Labor cost and welfare benefits (Employees)	Total	KRW 100 Million	2,774	2,721	2,728	
		Salaries	KRW 100 Million	2,234	2,290	2,266	
		Retirement benefits	KRW 100 Million	328	217	235	
		Welfare benefits	KRW 100 Million	212	214	227	
	Partner purchase amount (Supply chain)	Total	KRW 100 Million	5,160	5,005	4,936	
		Cost of purchasing goods	KRW 100 Million	3,004	2,392	1,784	
		Construction cost	KRW 100 Million	1,955	2,151	2,462	
		Service cost	KRW 100 Million	201	462	690	
	Cost of purchasing power generation fuel		KRW 100 Million	32,740	26,342	32,428	
	Dividends (Shareholders)		KRW 100 Million	180	-	49	
	Interest costs (Creditors)		KRW 100 Million	1,158	1,111	1,015	
	Contributors (Local communities)		KRW 100 Million	34	72	44	
	Taxes and dues (Government)		KRW 100 Million	(152)	(545)	(43)	

ESG Data (Business)

Power Infrastructure and Services

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Power Outage Time per Household		Min	8.61	8.90	8.92	
	Number of Power Outages per Household		Case	0.113	0.106	0.115	
	Transmission and distribution loss ratio		%	3.54	3.54	3.53	
	Underground Transmission and Distribution Rates	Transmission line	%	12.5	12.9	13.1	
		Distribution line	%	18.8	20.3	20.5	

Efficiency of Power Generation Facilities

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Utilization rate of power generation facilities		%	51.3	48.7	49.1	
	Thermal efficiency of power generation facilities	Generation end	%	39.88	40.16	40.5	
		Transmission end	%	37.88	38.11	38.48	
	Auxiliary power ratio		%	3.83	3.83	3.68	
KHNP	Utilization rate of power generation facilities	Nuclear Power	%	70.6	75.3	74.49	
		Hydropower	%	18.9	24.1	20.9	
		PHS	%	8.4	7.9	9.5	
		Renewable Power	%	16.43	17.49	15.01	
	Auxiliary power ratio	Hydropower	%	1.06	1.04	1.44	
		PHS	%	0.39	0.42	0.41	
KOEN	Utilization rate of power generation facilities		%	70.43	56.8	55.24	
	Thermal efficiency of power generation facilities		%	38.41	38.6	38.54	
	Auxiliary power ratio		%	5.58	5.97	6.25	
KOMIPO	Utilization rate of power generation facilities		%	49.17	51.75	50.69	
	Thermal efficiency of power generation facilities		%	40.49	41.27	42.06	
	Auxiliary power ratio		%	5.2	5.2	4.93	
KOWEPO	Utilization rate of power generation facilities		%	46.82	40.04	47.04	
	Thermal efficiency of power generation facilities		%	40.73	40.28	40.88	
	Auxiliary power ratio		%	5.35	6.23	5.74	
KOSPO	Utilization rate of power generation facilities		%	51.97	43.71	50.79	
	Thermal efficiency of power generation facilities		%	40.47	41.45	41.30	
	Auxiliary power ratio		%	4.77	4.94	4.78	
EWP	Utilization rate of power generation facilities		%	51.91	46.25	44.65	
	Thermal efficiency of power generation facilities		%	39.55	39.43	39.26	
	Auxiliary power ratio		%	5.56	5.83	5.97	

Customer by Contract Type & Power Sales

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Number of Customers by Contract Type	Total	Household	23,860,032	24,198,304	24,523,304	
		Residential use	Household	15,487,494	15,609,631	15,728,358	
		General use	Household	3,231,261	3,278,071	3,358,143	
		Industrial use	Household	425,249	429,973	434,174	
		Other	Household	4,716,028	4,880,629	5,002,629	
	Power Sales by Contract Type	Total	MWh	520,498,738	509,269,716	533,430,811	
		Residential use	MWh	72,638,868	76,303,405	79,914,811	
		General use	MWh	116,226,510	113,638,542	119,550,386	
		Industrial use	MWh	289,240,198	278,660,247	291,333,422	
		Other	MWh	42,393,162	40,667,521	42,632,191	
	Selling Price by Contract Type	Total	KRW/kwh	108.66	109.80	108.11	
		Residential use	KRW/kwh	104.95	107.89	109.16	
		General use	KRW/kwh	130.33	131.60	128.47	
		Industrial use	KRW/kwh	106.56	107.35	105.48	
		Other	KRW/kwh	69.92	69.25	67.08	

Improving Renewable Energy Connection Standards

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Renewable Energy Connection Delay Reduction Performance	Connection delay	MW	5,854	3,727	2,642	
		Connection completion	MW	8,049	11,626	14,176	
		Connection delay trends	%p	42.1	24.3	15.7	

Status of Electric Vehicle Charging Infrastructure

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Expanding Electric Vehicle Charging Infrastructure	Total	Chargers	8,028	9,166	9,998	
		High-speed	Chargers	2,953	3,352	4,170	
		Slow	Chargers	5,075	5,814	5,828	
	Infrastructure by Type of Use (Public)	Total	Chargers	1,329	1,688	2,471	
		High-speed	Chargers	1,189	1,547	2,330	
		Slow	Chargers	140	141	141	
	Infrastructure by Type of Use (Apartments)	Total	Chargers	5,988	6,734	6,749	
		High-speed	Chargers	1,766	1,766	1,766	
		Slow	Chargers	4,222	4,968	4,983	
	Infrastructure by Type of Use (Business)	Total	Chargers	704	705	704	
		High-speed	Chargers	0	0	0	
		Slow	Chargers	704	705	704	
	Infrastructure by Type of Use (Electric buses and trucks)	Total	Chargers	7	39	74	
		High-speed	Chargers	7	39	74	
		Slow	Chargers	0	0	0	

Average Generation Efficiency

Corp	Category	Unit	2019	2020	2021	Remarks
KHNP	Forced Outage Rate	%	0.083	0.208	0.250	
	Equivalent Unplanned Outage Rate	%	0.083	0.458	0.417	
KOEN	Forced Outage Rate	%	0.013	0.172	0.083	
	Equivalent Unplanned Outage Rate	%	0.040	0.180	0.250	
KOMIPO	Forced Outage Rate	%	0.021	0.041	0.071	
	Equivalent Unplanned Outage Rate	%	0.026	0.129	0.064	
KOWEPO	Forced Outage Rate	%	0.018	0.168	0.013	
	Equivalent Unplanned Outage Rate	%	0.118	0.118	0.218	
KOSPO	Forced Outage Rate	%	0.222	0.010	0.024	
	Equivalent Unplanned Outage Rate	%	1.110	0.050	0.038	
EWP	Forced Outage Rate	%	0.011	0.001	0.006	
	Equivalent Unplanned Outage Rate	%	0.018	0.002	0.013	

Power Generation Capacity of Overseas Projects

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Power Generation Capacity of Overseas Projects	Coal	MW	14,788	12,950	12,950	
		LNG	MW	5,004	5,577	5,577	
		Renewable Energy	MW	1,810	2,677	2,752	
		Nuclear Power	MW	5,600	5,600	5,600	
		Others (Heavy oil + Diesel)	MW	2,002	1,349	1,349	

Overseas Projects Sales

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Overseas Projects Sales	Total	KRW 100 Million	13,774	14,384	16,612	
		Thermal Power	KRW 100 Million	11,889	11,840	14,397	
		Renewable Energy	KRW 100 Million	1,493	1,914	1,961	
		Resources	KRW 100 Million	35	299	33	
		Transmission & Distribution / New Business	KRW 100 Million	357	330	221	

R&D Investment Status

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	R&D personnel	Persons	689	711	756	
	R&D expenses	KRW 1 Million	363,028	349,677	373,603	
	Ratio of R&D expenses to sales		0.62	0.60	0.63	
KHNP	R&D personnel	Persons	572	527	571	
	R&D expenses	KRW 1 Million	460,451	432,050	441,427	
	Ratio of R&D expenses to sales		5.50	4.57	5.07	
KOEN	R&D personnel	Persons	8	8	8	
	R&D expenses	KRW 1 Million	9,651	14,449	10,144	
	Ratio of R&D expenses to sales		0.58	1.12	0.62	
KOMIPO	R&D personnel	Persons	23	27	26	
	R&D expenses	KRW 1 Million	8,370	12,691	11,315	
	Ratio of R&D expenses to sales		0.59	0.82	0.65	
KOWEPO	R&D personnel	Persons	23	24	25	
	R&D expenses	KRW 1 Million	12,103	17,731	22,061	
	Ratio of R&D expenses to sales		0.27	0.49	0.44	
KOSPO	R&D personnel	Persons	11	11	11	
	R&D expenses	KRW 1 Million	8,706	14,706	12,003	
	Ratio of R&D expenses to sales		0.57	1.05	0.72	
EWP	R&D personnel	Persons	6	8	7	
	R&D expenses	KRW 1 Million	4,150	4,310	5,600	
	Ratio of R&D expenses to sales		0.09	0.10	0.12	

Patent Application/Registration Status

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Total	Case	1,122	1,227	1,070	
	Patent Application	Case	762	829	620	
	Patent Registration	Case	360	398	450	
KHNP	Total	Case	387	406	473	
	Patent Application	Case	264	245	313	
	Patent Registration	Case	123	161	160	
KOEN	Total	Case	91	78	97	
	Patent Application	Case	52	29	53	
	Patent Registration	Case	39	49	44	
KOMIPO	Total	Case	43	37	71	
	Patent Application	Case	26	18	54	
	Patent Registration	Case	17	19	17	
KOWEPO	Total	Case	91	104	125	
	Patent Application	Case	49	60	74	
	Patent Registration	Case	42	44	51	
KOSPO	Total	Case	31	15	55	
	Patent Application	Case	14	7	39	
	Patent Registration	Case	17	8	16	
EWP	Total	Case	49	62	72	
	Patent Application	Case	32	40	44	
	Patent Registration	Case	17	22	28	

ESG Data (Environment)

Direct (Scope 1) GHG Emissions

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Direct GHG emissions	10,000 tCO_2eq	91	84	79	
KHNP	Direct GHG emissions	10,000 tCO_2eq	8	7	7	
KOEN	Direct GHG emissions	10,000 tCO_2eq	5,334	4,244	3,714	
KOMIPO	Direct GHG emissions	10,000 tCO_2eq	3,417	3,466	3,298	
KOWEPO	Direct GHG emissions	10,000 tCO_2eq	3,452	3,025	3,320	
KOSPO	Direct GHG emissions	10,000 tCO_2eq	3,658	2,889	3,437	
EWP	Direct GHG emissions	10,000 tCO_2eq	3,894	3,482	3,271	

Energy Indirect (Scope 2) GHG Emissions

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Indirect GHG emissions	10,000 tCO_2eq	19	20	21	
KHNP	Indirect GHG emissions	10,000 tCO_2eq	303	284	305	
KOEN	Indirect GHG emissions	10,000 tCO_2eq	6	8	9	
KOMIPO	Indirect GHG emissions	10,000 tCO_2eq	10	12	11	
KOWEPO	Indirect GHG emissions	10,000 tCO_2eq	16	17	16	
KOSPO	Indirect GHG emissions	10,000 tCO_2eq	8	12	10	
EWP	Indirect GHG emissions	10,000 tCO_2eq	7	9	10	

Other Indirect (Scope 3) GHG Emissions

Corp		Category	Unit	2019	2020	2021	Remarks
KEPCO	Other Indirect GHG Emissions	Power Generation Fuel Production	tCO_2eq	45,442,637	39,323,308	2,315	
		Capital Goods	tCO_2eq	1,154	2,312	1,608	
		Power Generation Fuel Combustion	tCO_2eq	219,634,493	189,287,108	219,992,124	
		Upstream Transportation and Logistics	tCO_2eq	2	6	7	
		Waste Treatment	tCO_2eq	765	1,358	1,718	
		Employees' Domestic And Overseas Business Trips	tCO_2eq	9,104	4,944	4,543	
		Employee Commute	tCO_2eq	483	323	405	
KOEN	Other Indirect GHG Emissions	Power Generation Fuel Production	tCO_2eq	-	-	314,364	
		Capital Goods	tCO_2eq	-	-	66	
		Power Generation Fuel Combustion	tCO_2eq	-	-	8,314,904	
		Upstream Transportation and Logistics	tCO_2eq	-	-	274,253	
		Waste Treatment	tCO_2eq	-	-	3,939	
		Employees' Domestic And Overseas Business Trips	tCO_2eq	-	-	1,816	
		Employee Commute	tCO_2eq	-	-	18	
		Others	tCO_2eq	-	-	3,499,854	
KOWEPO	Other Indirect GHG Emissions	Power Generation Fuel Production	tCO_2eq	-	-	6,575,700	
		Capital Goods	tCO_2eq	-	-	225	
		Power Generation Fuel Combustion	tCO_2eq	-	-	-	
		Upstream Transportation and Logistics	tCO_2eq	-	-	5,118	
		Waste Treatment	tCO_2eq	-	-	63,214	
		Employees' Domestic And Overseas Business Trips	tCO_2eq	-	-	378	
		Employee Commute	tCO_2eq	-	-	1,093	
		Others	tCO_2eq	-	-	22,987	
KOSPO	Other Indirect GHG Emissions	Power Generation Fuel Production	tCO_2eq	-	6,945	10,265	
		Capital Goods	tCO_2eq	-	234	15	
		Power Generation Fuel Combustion	tCO_2eq	-	6,717,602	7,101,744	
		Upstream Transportation and Logistics	tCO_2eq	-	339,510	359,791	
		Waste Treatment	tCO_2eq	-	22,972	29,184	
		Employees' Domestic And Overseas Business Trips	tCO_2eq	-	406	364	
		Employee Commute	tCO_2eq	-	33	120	
EWP	Other Indirect GHG Emissions	Power Generation Fuel Production	tCO_2eq	80,400,863	7,286,754	7,137,075	
		Capital Goods	tCO_2eq	983	302	1,216	
		Upstream Transportation and Logistics	tCO_2eq	6,950	8,529	6,890	
		Waste Treatment	tCO_2eq	196	558	323	
		Employees' Domestic And Overseas Business Trips	tCO_2eq	1,454	942	519	
		Employee Commute	tCO_2eq	2,104	2,061	2,061	
		Others	tCO_2eq	2,533,744	2,766,921	2,795,664	

Implementation Performance of Emissions Trading System

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Allocation	10,000 tCO_2eq	124	87	85	
	Emissions	10,000 tCO_2eq	109.2	104.3	100.7	
KHNP	Allocation	10,000 tCO_2eq	342	333	323	
	Emissions	10,000 tCO_2eq	311	292	311	
KOEN	Allocation	10,000 tCO_2eq	4,326	3,777	3,560	
	Emissions	10,000 tCO_2eq	5,340	4,252	3,723	
KOMIPO	Allocation	10,000 tCO_2eq	3,110	3,089	2,930	
	Emissions	10,000 tCO_2eq	3,427	3,477	3,306	
KOWEPO	Allocation	10,000 tCO_2eq	3,548	3,152	2,862	
	Emissions	10,000 tCO_2eq	3,467	3,042	3,336	
KOSPO	Allocation	10,000 tCO_2eq	3,082	3,118	2,971	
	Emissions	10,000 tCO_2eq	3,666	2,901	3,447	
EWP	Allocation	10,000 tCO_2eq	3,166	3,306	2,793	
	Emissions	10,000 tCO_2eq	3,902	3,491	3,281	

GHG Emissions and Intensity

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Scope 1	tCO_2eq/ KRW 100 Million	1.54	1.45	1.33	
	Scope 2	tCO_2eq/ KRW 100 Million	0.33	0.35	0.35	
KHNP	Scope 1	tCO_2eq/ KRW 100 Million	0.9	0.7	0.7	
	Scope 2	tCO_2eq/ KRW 100 Million	33.7	28.4	32.2	
KOEN	Scope 1	tCO_2eq/ KRW 100 Million	990	997	716	
	Scope 2	tCO_2eq/ KRW 100 Million	1	2	2	
KOMIPO	Scope 1	tCO_2eq/ KRW 100 Million	770	834	628	
	Scope 2	tCO_2eq/ KRW 100 Million	2	3	2	
KOWEPO	Scope 1	tCO_2eq/ KRW 100 Million	776	839	668	
	Scope 2	tCO_2eq/ KRW 100 Million	3.5	4.7	3.2	
KOSPO	Scope 1	tCO_2eq/ KRW 100 Million	719	719	606	
	Scope 2	tCO_2eq/ KRW 100 Million	2	3	2	
한국 동서 발전	Scope 1	tCO_2eq/ KRW 100 Million	795	831	682	
	Scope 2	tCO_2eq/ KRW 100 Million	1.51	2.13	2	

Environmental Management System Certification

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Total number of business sites		Number	21	21	21	
	Environmental Management System Certification/Audit/ Examination (Excluding duplicates)	Number of workplaces obtained third-party environmental management system certificates	Number	20	20	20	
		Number of workplaces reviewed by third-party environmental management system organization	Number	20	20	20	
		Number of workplaces audited by environmental management system	Number	21	21	21	
KHNP	Total number of business sites		internal auditors	24	24	24	
	Environmental Management System Certification/Audit/ Examination (Excluding duplicates)	Number of workplaces obtained third-party environmental management system certificates	Number	24	24	24	
		Number of workplaces reviewed by third-party environmental management system organization	Number	11	15	11	
		Number of workplaces audited by environmental management system internal auditors	Number	14	14	12	
KOEN	Total number of business sites		Number	6	6	6	
	Environmental Management System Certification/Audit/ Examination (Excluding duplicates)	Number of workplaces obtained third-party environmental management system certificates	Number	6	6	6	
KOMIPO	Total number of business sites		Number	8	8	8	
	Environmental Management System Certification/Audit/ Examination (Excluding duplicates)	Number of workplaces obtained third-party environmental management system certificates	Number	8	8	8	
KOWEPO	Total number of business sites		Number	5	5	5	
	Environmental Management System Certification/Audit/ Examination (Excluding duplicates)	Number of workplaces obtained third-party environmental management system certificates	Number	5	5	5	
		Number of workplaces reviewed by third-party environmental management system organization	Number	5	5	5	
		Number of workplaces audited by environmental management system internal auditors	Number	4	4	4	
KOSPO	Total number of business sites		Number	8	8	8	
	Environmental Management System Certification/Audit/ Examination (Excluding duplicates)	Number of workplaces obtained third-party environmental management system certificates	Number	8	8	8	
EWP	Total number of business sites		Number	6	6	6	
	Environmental Management System Certification/Audit/ Examination (Excluding duplicates)	Number of workplaces obtained third-party environmental management system certificates	Number	6	6	6	

Material Usage

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Concrete	Ton	573,699	537,754	521,052	
	Metal	Ton	65,568	73,042	76,882	
	Power cables	Ton	40,476	40,886	39,643	
	Others	Ton	8,743	8,612	9,154	
	Total	Ton	688,486	660,294	646,731	

Energy Intensity

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Energy consumption rate	TJ/ KRW 1 Million	0.00012	0.00012	0.00013	
KHNP	Energy consumption rate	TJ/ KRW 1 Million	0.00553	0.00657	0.01161	
KOEN	Energy consumption rate	TJ/ KRW 1 Million	0.11171	0.11359	0.08410	
KOMIPO	Energy consumption rate	TJ/ KRW 1 Million	0.09158	0.09953	0.07938	
KOWEPO	Energy consumption rate	TJ/ KRW 1 Million	0.09332	0.09969	0.08331	
KOSPO	Energy consumption rate	TJ/ KRW 1 Million	0.08868	0.09231	0.07722	
EWP	Energy consumption rate	TJ/ KRW 1 Million	0.0966	0.1013	0.0850	

Water Consumption

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Water consumption within the organization	m^3	1,400,315	1,530,067	1,675,845	
KHNP	Water consumption within the organization	m^3	3,559,436	3,022,886	3,440,811	
KOEN	Water consumption within the organization	m^3	12,676,956	10,974,543	10,964,648	
KOMIPO	Water consumption within the organization	m^3	9,937,746	10,938,319	10,986,478	
KOWEPO	Water consumption within the organization	m^3	8,381,229	8,008,438	8,300,763	
KOSPO	Water consumption within the organization	m^3	10,968,892	10,408,226	11,036,356	
EWP	Water consumption within the organization	m^3	9,698,552	10,214,515	10,255,716	

The amount of significant fines and number of non-monetary sanctions imposed for non-compliance with environmental laws and regulations

Corp	Category		Unit	2019	2020	2021	Remarks
KHNP	Number of violations of environmental laws	Received final and conclusive judgments in the year	Case	1	0	2	
	Fines, penalty, etc.		KRW 1 Million	5	0	1.4	
KOEN	Number of violations of environmental laws	Received final and conclusive judgments in the year	Case	3	0	0	
	Fines, penalty, etc.		KRW 1 Million	1.76	0	0	
KOMIPO	Number of violations of environmental laws	Received final and conclusive judgments in the year	Case	7	2	3	
	Fines, penalty, etc.		KRW 1 Million	9.2	5	3.16	
KOWEPO	Number of violations of environmental laws	Received final and conclusive judgments in the year	Case	8	0	2	
	Fines, penalty, etc.		KRW 1 Million	13.3	0	2.8	
KOSPO	Number of violations of environmental laws	Received final and conclusive judgments in the year	Case	2	0	1	
	Fines, penalty, etc.		KRW 1 Million	0	0	2.4	
EWP	Number of violations of environmental laws	Received final and conclusive judgments in the year	Case	3	4	2	
	Fines, penalty, etc.		KRW 1 Million	6.4	7.44	0.64	

Sulfur Oxides (SOx), Nitrogen Oxides (Nox), and Other Air Emissions

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Sulfur hexafluoride (SF6)	TonCO_2eq	708,974	652,289	584,316	
KOEN	Sulfur Oxides (SOx)	Ton	11,351	6,330	5,412	
	Nitrogen Oxides (Nox)	Ton	14,151	8,704	6,370	
	Dust (TSP)	Ton	518	343	316	
KOMIPO	Sulfur Oxides (SOx)	Ton	6,144	4,060	3,342	
	Nitrogen Oxides (Nox)	Ton	7,481	4,777	3,817	
	Dust (TSP)	Ton	417	326	268	
	Sulfur hexafluoride (SF6)	TonCO_2eq	5,289	6,110	6,110	
KOWEPO	Sulfur Oxides (SOx)	Ton	5,017	3,179	3,508	
	Nitrogen Oxides (Nox)	Ton	6,970	4,188	5,618	
	Dust (TSP)	Ton	348	227	292	
	Sulfur hexafluoride (SF6)	TonCO_2eq	1,730	1,851	1,873	
KOSPO	Sulfur Oxides (SOx)	Ton	6,156	3,977	4,561	
	Nitrogen Oxides (Nox)	Ton	8,964	6,240	5,982	
	Dust (TSP)	Ton	442	358	361	
	Sulfur hexafluoride (SF6)	TonCO_2eq	903	928	947	
EWP	Sulfur Oxides (SOx)	Ton	7,813	6,620	6,164	
	Nitrogen Oxides (Nox)	Ton	9,724	6,796	5,632	
	Dust (TSP)	Ton	509	411	369	
	Sulfur hexafluoride (SF6)	TonCO_2eq	241	241	234	

Coal Ash and Desulfurized Gypsum Emissions

Corp	Category		Unit	2019	2020	2021	Remarks
KOEN	Coal Ash	Emissions	Thousand Ton	2,177	1,733	1,669	
		Recycling amount	Thousand Ton	2,252	1,736	1,552	
		Recycling rate	%	103	100	93	
	Desulfurized Gypsum	Emissions	Thousand Ton	437	362	383	
		Recycling amount	Thousand Ton	471	359	343	
		Recycling rate	%	108	99	89	
KOMIPO	Coal Ash	Emissions	Thousand Ton	1,446	1,375	1,368	
		Recycling amount	Thousand Ton	1,085	1,212	1.292	
		Recycling rate	%	75	88	94	
	Desulfurized Gypsum	Emissions	Thousand Ton	315	297	253	
		Recycling amount	Thousand Ton	317	297	253	
		Recycling rate	%	101	100	100	
KOWEPO	Coal Ash	Emissions	Thousand Ton	1,392	1,183	1,396	
		Recycling amount	Thousand Ton	1,007	1,093	1,081	
		Recycling rate	%	72	92	77	
	Desulfurized Gypsum	Emissions	Thousand Ton	284	236	232	
		Recycling amount	Thousand Ton	284	236	232	
		Recycling rate	%	100	100	100	
KOSPO	Coal Ash	Emissions	Thousand Ton	1,519	1,175	1,621	
		Recycling amount	Thousand Ton	1,743	1,597	1,912	
		Recycling rate	%	115	136	118	
	Desulfurized Gypsum	Emissions	Thousand Ton	246	168	183	
		Recycling amount	Thousand Ton	246	168	183	
		Recycling rate	%	100	100	100	
EWP	Coal Ash	Emissions	Thousand Ton	2,023	1,673	1,680	
		Recycling amount	Thousand Ton	2,277	1,766	1,605	
		Recycling rate	%	113	106	96	
	Desulfurized Gypsum	Emissions	Thousand Ton	262	266	272	
		Recycling amount	Thousand Ton	268	265	248	
		Recycling rate	%	103	100	91	

Green Business Vehicle

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Total Business vehicles	No. of Cars	3,544	3,707	3,654	
	Internal combustion vehicles (excluding compact cars)	No. of Cars	1,819	1,857	1,658	
	Compact cars	No. of Cars	972	932	682	
	Eco-friendly vehicles	No. of Cars	753	918	1,314	
	Hybrid vehicles	No. of Cars	160	198	300	
	Electric vehicles	No. of Cars	593	720	1,014	
	Green vehicle ratio	%	21.2	24.8	36	
KHNP	Total Business vehicles	No. of Cars	428	362	376	
	Internal combustion vehicles (excluding compact cars)	No. of Cars	324	248	250	
	Compact cars	No. of Cars	9	9	11	
	Eco-friendly vehicles	No. of Cars	104	114	126	
	Hybrid vehicles	No. of Cars	86	19	22	
	Electric vehicles	No. of Cars	18	95	104	
	Green vehicle ratio	%	24.3	31.5	33.5	
KOEN	Total Business vehicles	No. of Cars	75	76	83	
	Internal combustion vehicles (excluding compact cars)	No. of Cars	49	43	46	
	Compact cars	No. of Cars	0	0	0	
	Eco-friendly vehicles	No. of Cars	26	33	37	
	Hybrid vehicles	No. of Cars	11	9	9	
	Electric vehicles	No. of Cars	15	24	28	
	Green vehicle ratio	%	34.7	43.4	44.6	
KOMIPO	Total Business vehicles	No. of Cars	71	83	89	
	Internal combustion vehicles (excluding compact cars)	No. of Cars	43	43	35	
	Compact cars	No. of Cars	3	2	1	
	Eco-friendly vehicles	No. of Cars	25	38	53	
	Hybrid vehicles	No. of Cars	7	8	8	
	Electric vehicles	No. of Cars	18	30	45	
	Green vehicle ratio	%	35.2	45.7	59.5	
KOWEPO	Total Business vehicles	No. of Cars	82	80	76	
	Internal combustion vehicles (excluding compact cars)	No. of Cars	62	50	26	
	Compact cars	No. of Cars	1	1	1	
	Eco-friendly vehicles	No. of Cars	19	29	49	
	Hybrid vehicles	No. of Cars	5	7	8	
	Electric vehicles	No. of Cars	14	22	41	
	Green vehicle ratio	%	23.2	36.3	64.4	
KOSPO	Total Business vehicles	No. of Cars	89	86	88	
	Internal combustion vehicles (excluding compact cars)	No. of Cars	50	43	43	
	Compact cars	No. of Cars	4	3	2	
	Eco-friendly vehicles	No. of Cars	35	40	43	
	Hybrid vehicles	No. of Cars	6	8	8	
	Electric vehicles	No. of Cars	29	32	35	
	Green vehicle ratio	%	39.3	46.5	48.9	
EWP	Total Business vehicles	No. of Cars	61	61	61	
	Internal combustion vehicles (excluding compact cars)	No. of Cars	32	28	26	
	Compact cars	No. of Cars	8	7	5	
	Eco-friendly vehicles	No. of Cars	21	31	30	
	Hybrid vehicles	No. of Cars	8	8	7	
	Electric vehicles	No. of Cars	13	23	23	
	Green vehicle ratio	%	34.4	50.8	49.1	

ESG Data (Society)

Safety Training Performance

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Safety training performance (Employee)	Total number of trainees	Persons	-	-	21,569	
		Total training hours	Hours	-	-	427,066	
KHNP	Safety training performance (Employee)	Total number of trainees	Persons	-	-	1,435	
		Total training hours	Hours	-	-	28,502	
KOEN	Safety training performance (Employee)	Total number of trainees	Persons	-	-	6,467	
		Total training hours	Hours	-	-	49,790	
Korea Midland	Safety training performance (Employee)	Total number of trainees	Persons	-	-	833	
		Total training hours	Hours	-	-	14,294	
Power KOWEPO	Safety training performance (Employee)	Total number of trainees	Persons	-	-	8,983	
		Total training hours	Hours	-	-	61,093	
KOSPO	Safety training performance (Employee)	Total number of trainees	Persons	-	-	7,569	
		Total training hours	Hours	-	-	67,894	

Safety Personnel

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Safety personnel	Persons	-	251	261	
KHNP	Safety personnel	Persons	-	210	205	
KOEN	Safety personnel	Persons	-	88	125	
KOMIPO	Safety personnel	Persons	-	100	117	
KOWEPO	Safety personnel	Persons	-	119	126	
KOSPO	Safety personnel	Persons	-	113	128	
EWP	Safety personnel	Persons	-	99	104	

Number of Cyber Security Breach Incidence

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Number of cyber security breach incidents	Case	-	0	0	
KHNP	Number of cyber security breach incidents	Case	-	0	0	
KOEN	Number of cyber security breach incidents	Case	-	0	0	
KOMIPO	Number of cyber security breach incidents	Case	-	0	0	
KOWEPO	Number of cyber security breach incidents	Case	-	0	0	
KOSPO	Number of cyber security breach incidents	Case	-	0	0	

Purchase of Eco-friendly Equipment

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Purchase amount of eco-friendly power equipment	KRW 100 Million	-	3,823	4,452	
	Purchase rate of eco-friendly power equipment	%	-	15.80	14.30	

Innovative Product Procurement Performance

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Innovative product purchase performance	KRW 1 Million	-	90,588	69,145	
	Innovative product designation status	Case	-	22	31	
KHNP	Innovative product purchase performance	KRW 1 Million	-	5,796	17,363	
	Innovative product designation status	Case	-	77	265	
KOEN	Innovative product purchase performance	KRW 1 Million	-	2,467	4,524	
	Innovative product designation status	Case	-	3	2	
KOMIPO	Innovative product purchase performance	KRW 1 Million	-	5,499	4,830	
	Innovative product designation status	Case	-	2	1	
KOWEPO	Innovative product purchase performance	KRW 1 Million	-	2,802	6,035	
	Innovative product designation status	Case	-	3	4	
KOSPO	Innovative product purchase performance	KRW 1 Million	-	8,214	10,806	
	Innovative product designation status	Case	-	3	3	
EWP	Innovative product purchase performance	KRW 1 Million	-	4,406	12,066	
	Innovative product designation status	Case	-	0	0	

Products Manufactured By Persons With Severe Disabilities

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Purchase amount of products manufactured by persons with severe disabilities	KRW 1 Million	15,948	13,350	16,661	
KHNP	Purchase amount of products manufactured by persons with severe disabilities	KRW 1 Million	7,935	11,845	13,679	
KOEN	Purchase amount of products manufactured by persons with severe disabilities	KRW 1 Million	3,280	3,127	2,989	
KOMIPO	Purchase amount of products manufactured by persons with severe disabilities	KRW 1 Million	3,841	5,491	3,625	
KOWEPO	Purchase amount of products manufactured by persons with severe disabilities	KRW 1 Million	4,685	3,252	3,391	
KOSPO	Purchase amount of products manufactured by persons with severe disabilities	KRW 1 Million	6,260	5,520	4,241	
EWP	Purchase amount of products manufactured by persons with severe disabilities	KRW 1 Million	13,372	11,382	5,022	

Operations with Local Community Engagement, Impact Assessments and Development Programs

Corp	Category	Unit		2019	2020	2021	Remarks
KEPCO	Support for Mutually Beneficial Cooperation	Total	KRW 100 Million	54,229	56,894	67,328	
		Amount spent on purchasing SME products(Construction and Service included)	KRW 100 Million	54,066	56,779	67,195	
		Cooperative R&D	KRW 100 Million	40.2	38.4	47.27	
		Quality certification	KRW 100 Million	0.1	0.2	0.06	
		Marketing support	KRW 100 Million	23.6	7	15	
		Management support	KRW 100 Million	37.4	35.1	42.69	
		Heavy electric machine technology development fund (loan support)	KRW 100 Million	61.6	35	28	
	Social Contribution Status	Volunteer Activities by All Employees	Hours	144,445	93,155	54,858	
		Contributions	KRW 100 Million	123	474	682	
KHNP	Support for Mutually Beneficial Cooperation	Amount spent on purchasing SME products(Construction and Service included)	KRW 100 Million	10,951	13,726	14,728	
		Cooperative R&D	KRW 100 Million	11	41	62	
		Quality certification	KRW 100 Million	17	21	24	
		Marketing support	KRW 100 Million	23	21	20	
		Management support	KRW 100 Million	10	22	19	
		Others	KRW 100 Million	0.3	1	1	
	Social Contribution Status	Volunteer Activities by All Employees	Hours	59,204	26,900	14,604	
		Contributions	KRW 100 Million	113	107	126	
KOEN	Support for Mutually Beneficial Cooperation	Total	KRW 100 Million	3,186	3,530	3,501	
		Amount spent on purchasing SME products(Construction and Service included)	KRW 100 Million	3,099	3,354	3,438	
		Cooperative R&D	KRW 100 Million	7.0	6.5	8.6	
		Marketing support	KRW 100 Million	1.7	1.3	1.5	
		Management support	KRW 100 Million	15.3	24.9	10.7	
		Heavy electric machine technology development fund (loan support)	KRW 100 Million	63	143	42	
	Social Contribution Status	Volunteer Activities by All Employees	Hours	54,156	39,519	41,007	
		Contributions	KRW 100 Million	50	90	48	
KOMIPO	Support for Mutually Beneficial Cooperation	Amount spent on purchasing SME products(Construction and Service included)	KRW 100 Million	2,331	2,785	2,641	
		Cooperative R&D	KRW 100 Million	4.1	2.1	5.8	
		Marketing support	KRW 100 Million	6.9	7.2	6.5	
		Marketing support	KRW 100 Million	11.0	7.8	7.5	
	Social Contribution Status	Volunteer Activities by All Employees	Hours	5,622	3,400	2,642	
		Contributions	KRW 100 Million	67	102	166	

Corp	Category	Unit	2019	2020	2021	Remarks	Remarks
KOWEPO	Support for Mutually Beneficial Cooperation	Total	KRW 100 Million	3,027	3,252	3,103	
		Amount spent on purchasing SME products(Construction and Service included)	KRW 100 Million	2,977	3,191	3,051	
		Cooperative R&D	KRW 100 Million	0	7	10	
		Quality certification	KRW 100 Million	11	12	12	
		Marketing support	KRW 100 Million	10	6	3	
		Management support	KRW 100 Million	13	15	18	
		Heavy electric machine technology development fund (loan support)	KRW 100 Million	11	12	7	
		Others	KRW 100 Million	5	10	2	
	Social Contribution Status	Volunteer Activities by All Employees	Hours	17.78	16.03	15.69	
		Contributions	KRW 100 Million	79.56	167.10	119.94	
KOSPO	Support for Mutually Beneficial Cooperation	Amount spent on purchasing SME products(Construction and Service included)	KRW 100 Million	2,870	3,365	3,331	
		Cooperative R&D	KRW 100 Million	9	26	16	
		Quality certification	KRW 100 Million	0	4	3	
		Marketing support	KRW 100 Million	12	7	8	
		Management support	KRW 100 Million	22	9	10	
		Heavy electric machine technology development fund (loan support)	KRW 100 Million	5	0	0	
		Others	KRW 100 Million	0	0	0	
	Social Contribution Status	Volunteer Activities by All Employees	Hours	11,845	7,629	3,659	
		Contributions	KRW 100 Million	48	79	42	
EWP	Support for Mutually Beneficial Cooperation	Total	KRW 100 Million	3,464	3,198	3,097	
		Amount spent on purchasing SME products(Construction and Service included)	KRW 100 Million	3,446	3,166	3,071	
		Cooperative R&D	KRW 100 Million	15	30	23	
		Marketing support	KRW 100 Million	3	2	3	
	Social Contribution Status	Volunteer Activities by All Employees	Hours	66,372	56,829	53,175	
		Contributions	KRW 100 Million	54	51	59	

Start-up Support

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Number of start-up support cases	Case	73	56	100	
	Start-up support amount	KRW 100 Million	39	34	45	
KHNP	Number of start-up support cases	Case	48	31	31	
	Start-up support amount	KRW 100 Million	10.8	4	8	
KOEN	Number of start-up support cases	Case	35	26	18	
	Start-up support amount	KRW 100 Million	11	7	6	
KOMIPO	Number of start-up support cases	Case	9	9	9	
	Start-up support amount	KRW 100 Million	2.5	2.8	2.7	
KOWEPO	Number of start-up support cases	Case	12	20	20	
	Start-up support amount	KRW 100 Million	4.8	4.2	3.5	
KOSPO	Number of start-up support cases	Case	16	30	25	
	Start-up support amount	KRW 100 Million	1.7	8.4	8.1	
EWP	Number of start-up support cases	Case	56	41	51	
	Start-up support amount	KRW 100 Million	17	19	25	

Technology Transfer

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Contract	Case	176	185	234	
	Transfer Company	Number of company	156	164	123	
	Revenue	KRW 100 Million	32.3	92	37.04	
KHNP	Contract	Case	11	11	12	
	Transfer Company	Number of company	6	10	7	
	Revenue	KRW 100 Million	3	8.9	2	
KOEN	Contract	Case	10	12	20	
	Transfer Company	Number of company	8	8	10	
	Revenue	KRW 100 Million	0.04	0.16	0.14	
KOMIPO	Contract	Case	1	7	2	
	Transfer Company	Number of company	1	7	2	
	Revenue	KRW 100 Million	0.32	0.15	0.34	
KOWEPO	Contract	Case	7	9	9	
	Transfer Company	Number of company	1	8	1	
	Revenue	KRW 100 Million	6	1	8	
KOSPO	Contract	Case	20	24	21	
	Transfer Company	Number of company	15	24	20	
	Revenue	KRW 100 Million	2.2	3.6	1.9	

Safety and Health Management System Certification

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Total number of business sites		Number	23	23	23	
	Safety and Health Management System Certification/Audit/ Examination (Excluding duplicates)	Number of workplaces obtained third-party safety and health management system certificates	Number	23	23	22	
			Number	260	260	268	
		Number of workplaces reviewed by third-party safety and health management system organization	Number	50	25	32	
KHNP	Total number of business sites		Number of workplaces audited by safety and health management system	25	25	25	
	Safety and Health Management System Certification/Audit/ Examination (Excluding duplicates)	Number of workplaces obtained third-party safety and health management system certificates	Number	15	15	15	
			Number	15	15	15	
		Number of workplaces reviewed by third-party safety and health management system organization	Number	4	4	15	
KOEN	Total number of business sites		Number of workplaces audited by safety and health management system	5	5	5	
	Safety and Health Management System Certification/Audit/ Examination	internal auditors (Excluding duplicates)	Number	5	5	5	
			Number	5	5	5	
		Number of internal examination workplaces of the safety and health management system	Number	5	5	5	
KOMIPO	Total number of business sites		Number	8	8	8	
	Safety and Health Management System Certification/Audit/ Examination	Number of workplaces obtained third-party safety and health management system certificates (Excluding duplicates)	Number	8	8	8	
			Number	8	8	8	
		Number of internal examination workplaces of the safety and health management system	Number	8	8	8	

Corp	Category		Unit	2019	2020	2021	Remarks
KOWEPO	Total number of business sites		Number	6	6	6	
	Safety and Health Management System Certification/Audit/ Examination	Number of workplaces obtained third-party safety and health management system certificates	Number	5	5	5	
		Number of internal examination workplaces of the safety and health management system	Number	4	4	5	
KOSPO	Total number of business sites		Number	8	8	8	
	Safety and Health Management System Certification/Audit/ Examination	Number of workplaces obtained third-party safety and health management system certificates	Number	8	8	8	
		Number of internal examination workplaces of the safety and health management system	Number	3	3	3	
EWP	Total number of business sites		Number	6	6	6	
	Safety and Health Management System Certification/Audit/ Examination	Number of workplaces obtained third-party safety and health management system certificates	Number	6	6	6	
		(Excluding duplicates)	Number	6	6	6	
		Number of internal examination workplaces of the safety and health management system	Number	6	6	6	

Industrial Accident

Corp		Category	Unit	2019	2020	2021	Remarks
KEPCO	Employees	No. of regular employees (Number of current employees as of year-end)	Persons	22,979	23,396	23,288	
		No. of the injured (Based on internal data)	Persons	6	11	11	
		No. of deaths (Based on internal data)	Persons	0	1	1	
	Partners	No. of regular employees (Number of current employees as of year-end)	Persons	41,606	37,941	37,959	
		No. of the injured (Based on internal data)	Persons	129	59	57	
		No. of deaths (Based on internal data)	Persons	4	7	4	
Korea Hydro & Nuclear Power	Employees	No. of regular employees (Number of current employees as of year-end)	Persons	12,591	12,588	12,649	
		No. of the injured (Based on internal data)	Persons	7	5	12	
	Partners	No. of regular employees (Number of current employees as of year-end)	Persons	9,310	9,682	18,399	
		No. of the injured (Based on internal data)	Persons	40	48	93	
		No. of deaths (Based on internal data)	Persons	0	1	1	
KOEN	Employees	No. of regular employees (Number of current employees as of year-end)	Persons	2,554	2,717	2,894	
		No. of the injured (Based on internal data)	Persons	1	0	1	
	Partners	No. of regular employees (Based on construction accident data of the Ministry of Employment and Labor)	Persons	3,448	3,135	6,067	
		No. of the injured (Based on internal data)	Persons	9	11.6	12.2	
		No. of deaths (Based on internal data)	Persons	1	0	0	
KOMIPO	Employees	No. of regular employees (Number of current employees as of year-end)	Persons	2,539	2,627	2,686	
		No. of the injured (Based on internal data)	Persons	0	3	1	
	Partners	No. of regular employees (Based on construction accident data of the Ministry of Employment and Labor)	Persons	9,428	6,937	5,225	
		No. of the injured (Based on construction accident data of the Ministry of Employment and Labor)	Persons	19	10.6	11.2	
		No. of deaths (Based on construction accident data of the Ministry of Employment and Labor)	Persons	0	2	0	

Corp		Category	Unit	2019	2020	2021	Remarks
KOWEPO	Employees	No. of regular employees (Number of current employees as of year-end)	Persons	2,515	2,654	2,695	
		No. of the injured (Based on internal data)	Persons	1	1	4	
	Partners	No. of regular employees (Number of current employees as of year-end)	Persons	3,819	4,379	4,680	
		No. of the injured (Based on internal data)	Persons	2	7.6	6.2	
KOSPO	Employees	No. of regular employees (Number of current employees as of year-end)	Persons	2,404	2,505	2,648	
		No. of the injured (Based on internal data)	Persons	0	1	0	
	Partners	No. of regular employees (Number of current employees as of year-end)	Persons	4,909	3,160	3,468	
		No. of the injured (Based on internal data)	Persons	5	8.6	1.2	
EWP	Employees	No. of regular employees (Number of current employees as of year-end)	Persons	2,447	2,433	2,397	
		No. of the injured (Based on internal data)	Persons	1	0	1	
	Partners	No. of regular employees (Number of current employees as of year-end)	Persons	4,000	4,182	4,429	
		No. of the injured (Based on internal data)	Persons	2	4.6	4.2	

* Number of victims of partner companies : Based on data released by the Ministry of Employment and Labor
* The decimal unit in 2020 and 2021 is an equal distribution of disasters during joint construction of five group companies

Youth Job Creation Performance(Direct Recruitment)

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Youth Interns	Persons	1,674	2,004	2,501	
	Youth Recruitment	Persons	1,699	1,488	986	
KHNP	Youth Interns	Persons	516	404	868	
	Youth Recruitment	Persons	381	374	376	
KOEN	Youth Interns	Persons	158	91	185	
	Youth Recruitment	Persons	127	241	167	
KOMIPO	Youth Interns	Persons	189	199	217	
	Youth Recruitment	Persons	-	33	86	
KOWEPO	Youth Interns	Persons	197	181	186	
	Youth Recruitment	Persons	144	215	98	
KOSPO	Youth Interns	Persons	244	380	203	
	Youth Recruitment	Persons	242	374	203	
EWP	Youth Interns	Persons	41	147	228	
	Youth Recruitment	Persons	80	45	91	

Recruitment and Retirement

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Total number of new hires		Persons	1,773	1,550	1,051	
	Number of new hires by gender	Male	Persons	1,261	1,103	749	
		Female	Persons	512	447	302	
	Number of new hires by type	Youth (aged under 34)	Persons	1,699	1,488	986	
		Disabled	Persons	24	22	42	
		Veterans	Persons	86	93	78	
		High school graduates	Persons	281	395	195	
		Local talents outside of the capital area	Persons	1,102	925	600	
		Local talent from the relocation ratio	Persons	244	245	174	
	Total number of turnover and retirees		Persons	877	952	794	
	Total of turnover and retirement rate		%	3.8	4.1	3	
	Number of turnover and retirees by gender	Male	Persons	819	886	712	
		Female	Persons	58	66	82	
	Number of turnover and retirees by type	Number of voluntary turnover	Persons	123	115	140	
		Voluntary turnover rate	%	0.14	0.12	0.18	
		Retirement	Persons	736	810	626	
		Dismissal	Persons	5	5	7	
		Expulsion (death)	Persons	11	17	16	
		Expiration of term (contract workers, executives)	Persons	2	5	5	
KHNP	Total number of new hires		Persons	414	422	418	
	Number of new hires by gender	Male	Persons	324	317	297	
		Female	Persons	90	105	121	
	Number of new hires by type	Youth (aged under 34)	Persons	381	374	376	
		Disabled	Persons	9	30	30	
		Veterans	Persons	19	36	27	
		High school graduates	Persons	90	83	32	
		Local talents outside of the capital area	Persons	259	272	278	
		Local talent from the relocation ratio	Persons	100	104	105	
	Total number of turnover and retirees		Persons	352	342	281	
	Total of turnover and retirement rate		%	2.86	2.77	2.25	
	Number of turnover and retirees by gender	Male	Persons	319	317	242	
		Female	Persons	33	25	39	
	Number of turnover and retirees by type	Number of voluntary turnover	Persons	103	85	98	
		Voluntary turnover rate	%	29.26	24.85	34.88	
		Retirement	Persons	230	243	176	
		Dismissal	Persons	5	3	2	
		Expulsion (death)	Persons	9	4	2	
		Expiration of term (contract workers, executives)	Persons	5	7	3	

Corp	Category		Unit	2019	2020	2021	Remarks
KOEN	Total number of new hires		Persons	135	254	172	
	Number of new hires by gender	Male	Persons	102	201	131	
		Female	Persons	33	53	41	
	Number of new hires by type	Youth (aged under 34)	Persons	127	241	167	
		Disabled	Persons	5	8	8	
		Veterans	Persons	16	19	16	
		High school graduates	Persons	16	29	13	
		Local talents outside of the capital area	Persons	91	158	103	
		Local talent from the relocation ratio	Persons	20	49	32	
	Total number of turnover and retirees		Persons	78	60	71	
	Total of turnover and retirement rate		%	3.1	2.2	2.5	
	Number of turnover and retirees by gender	Male	Persons	71	53	63	
		Female	Persons	7	7	8	
	Number of turnover and retirees by type	Number of voluntary turnover	Persons	33	24	37	
		Voluntary turnover rate	%	1.3	0.9	1.3	
		Retirement	Persons	38	35	30	
		Dismissal	Persons	2	-	-	
		Expulsion (death)	Persons	3	1	1	
		Expiration of term (contract workers, executives)	Persons	2	-	3	
KOMIPO	Total number of new hires		Persons	207	103	105	
	Number of new hires by gender	Male	Persons	174	83	72	
		Female	Persons	33	20	33	
	Number of new hires by type	Youth (aged under 34)	Persons	192	89	95	
		Disabled	Persons	16	10	1	
		Veterans	Persons	13	27	20	
		High school graduates	Persons	45	23	16	
		Local talents outside of the capital area	Persons	138	78	84	
		Local talent from the relocation ratio	Persons	41	26	30	
	Total number of turnover and retirees		Persons	116	91	92	
	Total of turnover and retirement rate		%	0	0	0	
	Number of turnover and retirees by gender	Male	Persons	111	80	84	
		Female	Persons	5	11	8	
	Number of turnover and retirees by type	Number of voluntary turnover	Persons	45	31	42	
		Voluntary turnover rate	%	0	0	0	
		Retirement	Persons	64	57	44	
		Dismissal	Persons	3	-	-	
		Expulsion (death)	Persons	1	1	2	
		Expiration of term (contract workers, executives)	Persons	3	2	4	
KOWEPO	Total number of new hires		Persons	162	229	106	
	Number of new hires by gender	Male	Persons	141	189	76	
		Female	Persons	21	40	30	
	Number of new hires by type	Youth (aged under 34)	Persons	144	215	98	
		Disabled	Persons	7	7	7	
		Veterans	Persons	22	21	14	
		High school graduates	Persons	22	19	14	
		Local talents outside of the capital area	Persons	87	122	60	
		Local talent from the relocation ratio	Persons	24	42	23	
	Total number of turnover and retirees		Persons	89	76	75	
	Total of turnover and retirement rate		%	3.52	2.85	2.76	
	Number of turnover and retirees by gender	Male	Persons	82	72	72	
		Female	Persons	6	4	3	
	Number of turnover and retirees by type	Number of voluntary turnover	Persons	41	32	35	
		Voluntary turnover rate	%	46.33	41.91	46.31	
		Retirement	Persons	48	40	37	
		Dismissal	Persons	-	1	-	
		Expulsion (death)	Persons	-	2	-	
		Expiration of term (contract workers, executives)	Persons	-	2	3	

Corp	Category		Unit	2019	2020	2021	Remarks
KOSPO	Total number of new hires		Persons	270	158	102	
	Number of new hires by gender	Male	Persons	209	118	74	
		Female	Persons	61	40	28	
	Number of new hires by type	Youth (aged under 34)	Persons	250	143	92	
		Disabled	Persons	25	11	7	
		Veterans	Persons	17	31	14	
		High school graduates	Persons	34	19	8	
		Local talents outside of the capital area	Persons	184	91	65	
		Local talent from the relocation ratio	Persons	103	47	31	
	Total number of turnover and retirees		Persons	87	96	82	
	Total of turnover and retirement rate		%	3.59	3.81	3.09	
	Number of turnover and retirees by gender	Male	Persons	79	81	73	
		Female	Persons	8	15	10	
	Number of turnover and retirees by type	Number of voluntary turnover	Persons	30	38	31	
		Voluntary turnover rate	%	1.22	1.52	1.15	
		Retirement	Persons	43	40	33	
		Dismissal	Persons	0	0	0	
		Expulsion (death)	Persons	0	1	1	
		Expiration of term (contract workers, executives)	Persons	15	17	18	
EWP	Total number of new hires		Persons	91	55	94	
	Number of new hires by gender	Male	Persons	71	41	69	
		Female	Persons	20	14	25	
	Number of new hires by type	Youth (aged under 34)	Persons	80	45	91	
		Disabled	Persons	2	1	6	
		Veterans	Persons	9	21	11	
		High school graduates	Persons	13	4	10	
		Local talents outside of the capital area	Persons	55	33	64	
		Local talent from the relocation ratio	Persons	18	8	18	
	Total number of turnover and retirees		Persons	77	90	57	
	Total of turnover and retirement rate		%	3.12	3.65	2.28	
	Number of turnover and retirees by gender	Male	Persons	69	85	49	
		Female	Persons	8	5	8	
	Number of turnover and retirees by type	Number of voluntary turnover	Persons	27	30	24	
		Voluntary turnover rate	%	1.09	1.22	0.96	
		Retirement	Persons	47	53	29	
		Dismissal	Persons	-	2	-	
		Expulsion (death)	Persons	3	3	2	
		Expiration of term (contract workers, executives)	Persons	-	2	2	

Recruitment Based on Social Equality

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO		Total	Persons	1,627	1,565	969	
	By type	Local talent from outside the capital region	Persons	1,102	925	600	
		Local talent from the relocation region (Gwangju/Jeonnam)	Persons	244	245	174	
		High school graduates	Persons	281	395	195	
KHNP		Total	Persons	448	459	415	
	By type	Local talent from outside the capital region	Persons	259	272	278	
		Local talent from the relocation region	Persons	100	104	105	
		High school graduates	Persons	90	83	32	
KOEN		Total	Persons	127	236	148	
	By type	Local talent from outside the capital region	Persons	91	158	103	
		Local talent from the relocation region	Persons	20	49	32	
		High school graduates	Persons	16	29	13	
KOMIPO		Total	Persons	223	127	130	
	By type	Local talent from outside the capital region	Persons	138	78	84	
		Local talent from the relocation region	Persons	41	26	30	
		High school graduates	Persons	45	23	16	
KOWEPO		Total	Persons	133	183	97	
	By type	Local talent from outside the capital region	Persons	87	122	60	
		Local talent from the relocation region	Persons	24	42	23	
		High school graduates	Persons	22	19	14	
KOSPO		Total	Persons	321	157	104	
	By type	Local talent from outside the capital region	Persons	184	91	65	
		Local talent from the relocation region	Persons	103	47	31	
		High school graduates	Persons	34	19	8	
EWP		Total	Persons	86	45	92	
	By type	Local talent from outside the capital region	Persons	55	33	64	
		Local talent from the relocation region	Persons	18	8	18	
		High school graduates	Persons	13	4	10	

Parental Leave

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Number of employees on maternity leave	Female	Persons	110	135	150	
		Male	Persons	414	394	535	
	Number of employees on parental leave	Female	Persons	354	393	410	
		Male	Persons	73	98	124	
	Number of employees using reduced working hours for childcare	Female	Persons	297	299	269	
		Male	Persons	265	325	397	
	Return rate after parental leave (male/female)	Female	%	99	98	98	
		Male	%	100	98	99	
	Retention rate for more than 1 year after returning	Female	%	99	98	97	
		Male	%	98	98	99	
KHNP	Number of employees on maternity leave	Female	Persons	112	111	132	
		Male	Persons	433	377	398	
	Number of employees on parental leave	Female	Persons	290	289	307	
		Male	Persons	146	209	259	
	Number of employees using reduced working hours for childcare	Female	Persons	7	11	17	
		Male	Persons	22	7	7	
	Return rate after parental leave (male/female)	Female	%	100	98	98	
		Male	%	100	99	99	
	Retention rate for more than 1 year after returning	Female	%	100	98	98	
		Male	%	100	99	99	
KOEN	Number of employees on maternity leave	Female	Persons	20	19	18	
		Male	Persons	85	63	68	
	Number of employees on parental leave	Female	Persons	73	64	50	
		Male	Persons	17	18	14	
	Number of employees using reduced working hours for childcare	Female	Persons	1	5	0	
		Male	Persons	7	16	3	
	Return rate after parental leave (male/female)	Female	%	97	93	100	
		Male	%	88	100	100	
	Retention rate for more than 1 year after returning	Female	%	100	100	96	
		Male	%	100	100	100	
KOMIPO	Number of employees on maternity leave	Female	Persons	23	27	27	
		Male	Persons	57	59	70	
	Number of employees on parental leave	Female	Persons	67	67	76	
		Male	Persons	16	24	25	
	Number of employees using reduced working hours for childcare	Female	Persons	0	5	2	
		Male	Persons	2	25	5	
	Return rate after parental leave (male/female)	Female	%	100	100	85.7	
		Male	%	100	100	100	
	Retention rate for more than 1 year after returning	Female	%	100	93.8	85.7	
		Male	%	100	100	100	

Corp	Category		Unit	2019	2020	2021	Remarks
KOWEPO	Number of employees on maternity leave	Female	Persons	20	23	18	
		Male	Persons	68	78	67	
	Number of employees on parental leave	Female	Persons	56	68	63	
		Male	Persons	25	35	27	
	Number of employees using reduced working hours for childcare	Female	Persons	0	1	0	
		Male	Persons	-	-	1	
	Return rate after parental leave (male/female)	Female	%	100	100	100	
		Male	%	100	100	100	
	Retention rate for more than 1 year after returning	Female	%	100	100	100	
		Male	%	100	100	100	
KOSPO	Number of employees on maternity leave	Female	Persons	18	17	22	
		Male	Persons	79	63	64	
	Number of employees on parental leave	Female	Persons	48	41	51	
		Male	Persons	19	28	28	
	Number of employees using reduced working hours for childcare	Female	Persons	21	26	33	
		Male	Persons	52	110	111	
	Return rate after parental leave (male/female)	Female	%	63	92	83	
		Male	%	60	63	68	
	Retention rate for more than 1 year after returning	Female	%	67	80	92	
		Male	%	80	100	92	
EWP	Number of employees on maternity leave	Female	Persons	22	28	39	
		Male	Persons	72	56	83	
	Number of employees on parental leave	Female	Persons	59	62	66	
		Male	Persons	14	24	13	
	Number of employees using reduced working hours for childcare	Female	Persons	0	0	1	
		Male	Persons	-	-	-	
	Return rate after parental leave (male/female)	Female	%	95	96	100	
		Male	%	100	95	100	
	Retention rate for more than 1 year after returning	Female	%	99	97	100	
		Male	%	100	97	100	

Labor Union Membership Status

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Number of labor union members	Persons	75.6	76.5	77.4	
	Labor union membership rate	%	76	76	77	
KHNP	Number of labor union members	Persons	8,304	8,322	8,616	
	Labor union membership rate	%	66.7	66.3	68.1	
KOEN	Number of labor union members	Persons	1,824	1,952	2,023	
	Labor union membership rate	%	72.9	72.1	72	
KOMIPO	Number of labor union members	Persons	1,632	1,691	1,715	
	Labor union membership rate	%	58.8	61.3	62.1	
KOWEPO	Number of labor union members	Persons	1,734	1,888	1,894	
	Labor union membership rate	%	68.1	68.6	67.8	
KOSPO	Number of labor union members	Persons	1,651	1,719	1,798	
	Labor union membership rate	%	68	69	68	
EWP	Number of labor union members	Persons	1,744	1,723	1,807	
	Labor union membership rate	%	70.6	69.9	72.2	

Average Training Hours per Employee

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Total number of trainees		Persons	44,868	27,435	52,307	
		Senior Executives (1st and 2nd tiers)	Persons	5,177	2,259	5,988	
		Junior Executive (3rd tire)	Persons	10,816	5,353	10,618	
		Staff (4th or Lower tiers)	Persons	28,875	19,823	35,701	
	Total training hours		Hours	2,204,693	1,576,493	1,631,076	
		Training hours per person	Hours	95.9	67.4	72	
	Total training cost		KRW 1 Million	24,841	15,901	15,122	
		Training cost per person	KRW	1,081,050	679,654	649,338	
KHNP	Total number of trainees		Persons	26,546	17,068	23,807	
		Senior Executives (1st and 2nd tiers)	Persons	3,077	2,518	2,512	
		Junior Executive (3rd tire)	Persons	6,996	4,055	5,594	
		Staff (4th or Lower tiers)	Persons	16,473	10,495	15,701	
	Total training hours		Hours	956,271	1,258,883	1,570,696	
		Training hours per person	Hours	36	74	66	
	Total training cost		KRW 1 Million	49,100	49,700	41,810	
		Training cost per person	KRW	185	291	176	
KOEN	Total number of trainees		Persons	15,153	55,296	34,685	
		Senior Executive (1st and 2nd tiers)	Persons	1,215	3,308	2,033	
		Junior Executive (3rd tier)	Persons	3,656	10,478	7,962	
		Staff (4th or Lower tiers)	Persons	10,282	41,510	24,690	
	Total training hours		Hours	297,541	223,743	304,684	
		Training hours per person	Hours	122.7	89.2	114.9	
	Total training cost		KRW 1 Million	13,462	9,324	10,078	
		Training cost per person	KRW	888,413	168,612	290,558	
KOMIPO	Total number of trainees		Persons	31,398	36,558	34,787	
		Senior Executives (1st and 2nd tiers)	Persons	1,968	2,069	2,009	
		Junior Executive (3rd tier)	Persons	7,820	8,329	8,082	
		Staff (4th or Lower tiers)	Persons	21,610	26,160	24,696	
	Total training hours		Hours	199,542	208,520	230,270	
		Training hours per person	Hours	74	77	86	
	Total training cost		KRW 1 Million	8,690	6,994	9,748	
		Training cost per person	KRW	3.23	2.61	4	
KOWEPO	Total number of trainees		Persons	19,074	29,156	29,606	
		Senior Executives (1st and 2nd tiers)	Persons	1,196	1,698	1,574	
		Junior Executive (3rd tire)	Persons	4,169	5,816	5,750	
		Staff (4th or Lower tiers)	Persons	13,709	21,642	22,282	
	Total training hours		Hours	282,002	268,178	299,635	
		Training hours per person	Hours	118.8	109.1	119	
	Total training cost		KRW 1 Million	6,164	8,155	6,971	
		Training cost per person	KRW	2,596,000	3,318,000	2,769,000	

Corp	Category		Unit	2019	2020	2021	Remarks
KOSPO	Total number of trainees		Persons	20,101	15,156	18,942	
		Senior Executives (1st and 2nd tires)	Persons	1,398	1,013	1,153	
		Junior Executive (3rd tire)	Persons	4,556	3,660	4,172	
		Staff (4th or Lower tiers)	Persons	14,147	10,483	13,617	
	Total training hours		Hours	243,392	158,178	191,887	
		Training hours per person	Hours	101	63	72	
	Total training cost		KRW 1 Million	7,138	5,310	8,222	
		Training cost per person	KRW	2,955,596	2,120,078	3,104,457	
EWP	Total number of trainees		Persons	37,383	28,660	30,963	
		Senior Executives (1st and 2nd tires)	Persons	2,498	2,509	2,348	
		Junior Executive (3rd tire)	Persons	8,226	6,519	7,833	
		Staff (4th or lower tiers)	Persons	26,659	19,632	20,782	
	Total training hours		Hours	488,411	345,587	355,479	
		Training hours per person	Hours	211	148	132	
	Total training cost		KRW 1 Million	8,790	7,410	9,220	
		Training cost per person	KRW	3,801,903	3,173,448	3,432,614	

Employee Composition

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Total no. of employees		Persons	23,137	23,551	23,414	
	By employment type	Regular employees	Persons	22,979	23,396	23,288	
		Irregular employees	Persons	158	155	126	
	By gender	Male	Persons	18,291	18,391	18,189	
		Female	Persons	4,846	5,160	5,225	
	By age	Aged under 30	Persons	6,295	6,726	5,176	
		Aged 30~50	Persons	11,284	11,562	12,936	
		Aged over 51	Persons	5,558	5,263	5,302	
KHNP	Total no. of employees		Persons	12,459	12,551	12,655	
	By employment type	Regular employees	Persons	12,292	12,361	12,463	
		Irregular employees	Persons	167	190	192	
	By gender	Male	Persons	10,765	10,766	10,802	
		Female	Persons	1,694	1,785	1,853	
	By age	Aged under 30	Persons	2,076	2,018	2,014	
		Aged 30~50	Persons	7,913	7,992	7,895	
		Aged over 51	Persons	2,470	2,541	2,746	
KOEN	Total no. of employees		Persons	2,503	2,708	2,812	
	By employment type	Regular employees	Persons	2,503	2,708	2,811	
		Irregular employees	Persons	-	-	1	
	By gender	Male	Persons	2,218	2,369	2,437	
		Female	Persons	285	338	375	
	By age	Aged under 30	Persons	443	586	666	
		Aged 30~50	Persons	1,555	1,602	1,595	
		Aged over 51	Persons	505	519	551	
KOMIPO	Total no. of employees		Persons	2,774	2,759	2,760	
	By employment type	Regular employees	Persons	2,769	2,752	2,754	
		Irregular employees	Persons	5	7	6	
	By gender	Male	Persons	2,394	2,370	2,351	
		Female	Persons	380	389	409	
	By age	Aged under 30	Persons	600	543	505	
		Aged 30~50	Persons	1,531	1,560	1,577	
		Aged over 51	Persons	643	656	678	

Corp	Category		Unit	2019	2020	2021	Remarks
KOWEPO	Total no. of employees		Persons	2,515	2,654	2,695	
	By employment type	Regular employees	Persons	2,509	2,651	2,692	
		Irregular employees	Persons	6	3	4	
	By gender	Male	Persons	2,208	2,315	2,329	
		Female	Persons	307	340	366	
	By age	Aged under 30	Persons	604	679	690	
		Aged 30~50	Persons	1,327	1,386	1,385	
		Aged over 51	Persons	584	589	620	
KOSPO	Total no. of employees		Persons	2,425	2,507	2,652	
	By employment type	Regular employees	Persons	2,415	2,505	2,648	
		Irregular employees	Persons	10	3	4	
	By gender	Male	Persons	2,121	2,171	2,261	
		Female	Persons	304	337	392	
	By age	Aged under 30	Persons	410	443	520	
		Aged 30~50	Persons	1,457	1,483	1,491	
		Aged over 51	Persons	558	582	641	
EWP	Total no. of employees		Persons	2,518	2,496	2,514	
	By employment type	Regular employees	Persons	2,470	2,466	2,503	
		Irregular employees	Persons	48	30	11	
	By gender	Male	Persons	2,201	2,167	2,175	
		Female	Persons	317	329	339	
	By age	Aged under 30	Persons	378	374	394	
		Aged 30~50	Persons	1,439	1,444	1,418	
		Aged over 51	Persons	701	678	702	

Employee Gender Diversity

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Total number of executives	Persons	13	15	15	
	Number of female executives	Persons	1	2	2	
	Ratio of female executives	%	7.69	13.33	13.33	
	Total number of managers (Tier 1, 2, 3)	Persons	5,140	5,176	5,218	
	Total number of female managers (Tier 1, 2, 3)	Persons	409	473	513	
	Ratio of female managers	%	7.96	9.14	9.83	
KHNP	Total number of executives	Persons	6	6	6	
	Number of female executives	Persons	0	0	0	
	Ratio of female executives	%	0	0	0	
	Total number of managers (Tier 1, 2, 3)	Persons	3,948	3,958	3,939	
	Total number of female managers (Tier 1, 2, 3)	Persons	153	153	161	
	Ratio of female managers	%	3.88	3.87	4.09	
KOEN	Total number of executives	Persons	4	4	4	
	Number of female executives	Persons	0	0	0	
	Ratio of female executives	%	0	0	0	
	Total number of managers (Tier 1, 2, 3)	Persons	745	800	820	
	Total number of female managers (Tier 1, 2, 3)	Persons	45	55	61	
	Ratio of female managers	%	6.04	6.88	7.44	
KOMIPO	Total number of executives	Persons	4	4	4	
	Number of female executives	Persons	0	0	0	
	Ratio of female executives	%	0	0	0	
	Total number of managers (Tier 1, 2, 3)	Persons	782	817	826	
	Total number of female managers (Tier 1, 2, 3)	Persons	45	51	56	
	Ratio of female managers	%	5.75	6.24	6.78	
KOWEPO	Total number of executives	Persons	9	9	9	
	Number of female executives	Persons	1	1	1	
	Ratio of female executives	%	11.1	11.1	11.1	
	Total number of managers (Tier 1, 2, 3)	Persons	704	726	733	
	Total number of female managers (Tier 1, 2, 3)	Persons	37	41	50	
	Ratio of female managers	%	5.26	5.65	6.82	
KOSPO	Total number of executives	Persons	9	9	9	
	Number of female executives	Persons	1	1	1	
	Ratio of female executives	%	11.1	11.1	11.1	
	Total number of managers (Tier 1, 2, 3)	Persons	697.75	743	752.25	
	Total number of female managers (Tier 1, 2, 3)	Persons	42.75	54.75	59	
	Ratio of female managers	%	6.13	7.37	7.84	
EWP	Total number of executives	Persons	4	4	4	
	Number of female executives	Persons	0	0	0	
	Ratio of female executives	%	0	0	0	
	Total number of managers (Tier 1, 2, 3)	Persons	662	659	660	
	Total number of female managers (Tier 1, 2, 3)	Persons	40	38	45.75	
	Ratio of female managers	%	5.8	5.8	6.93	

Difference in Hourly Wage between Male and Female compared to the Minimum Wage

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Annual salary based on the minimum wage		KRW	8,350	8,590	8,720	
	Hourly wages for new male employees	Including regular wages; In case of employment after graduating from a 4-year university	KRW	15,768	16,198	16,344	
	Wage ratio of new male employees to the statutory minimum wage		%	1.89	1.89	1.87	
	Hourly wages for new female employees		KRW	15,405	15,919	16,063	
	Wage ratio of new female employees to the statutory minimum wage		%	1.84	1.85	1.84	
KHNP	Annual salary based on the minimum wage		KRW	8,350	8,590	8,720	
	Hourly wages for new male employees	Including regular wages; In case of employment after graduating from a 4-year university	KRW	16,332	16,731	16,731	
	Wage ratio of new male employees to the statutory minimum wage		%	1.96	1.95	1.92	
	Hourly wages for new female employees		KRW	16,332	16,731	16,731	
	Wage ratio of new female employees to the statutory minimum wage		%	1.96	1.95	1.92	
KOEN	Annual salary based on the minimum wage		KRW	8,350	8,590	8,720	
	Hourly wages for new male employees	Including regular wages; In case of employment after graduating from a 4-year university	KRW	14,389	14,854	15,299	
	Wage ratio of new male employees to the statutory minimum wage		%	1.72	1.73	1.75	
	Hourly wages for new female employees		KRW	13,620	14,095	14,575	
	Wage ratio of new female employees to the statutory minimum wage		%	1.63	1.64	1.67	
KOMIPO	Annual salary based on the minimum wage		KRW	8,350	8,590	8,720	
	Hourly wages for new male employees	Including regular wages; In case of employment after graduating from a 4-year university	KRW	16,013	16,582	17,404	
	Wage ratio of new male employees to the statutory minimum wage		%	1.92	1.93	2.00	
	Hourly wages for new female employees		KRW	16,013	16,582	17,404	
	Wage ratio of new female employees to the statutory minimum wage		%	1.92	1.93	2.00	
KOWEPO	Annual salary based on the minimum wage		KRW	8,350	8,590	8,720	
	Hourly wages for new male employees	Including regular wages; In case of employment after graduating from a 4-year university	KRW	17,504	17,933	18,102	
	Wage ratio of new male employees to the statutory minimum wage		%	2.10	2.09	2.08	
	Hourly wages for new female employees		KRW	17,504	17,933	18,102	
	Wage ratio of new female employees to the statutory minimum wage		%	2.10	2.09	2.08	
KOSPO	Annual salary based on the minimum wage		KRW	8,350	8,590	8,720	
	Hourly wages for new male employees	Including regular wages; In case of employment after graduating from a 4-year university	KRW	17,710	14,890	17,790	
	Wage ratio of new male employees to the statutory minimum wage		%	2.12	1.73	2.04	
	Hourly wages for new female employees		KRW	17,710	14,890	17,790	
	Wage ratio of new female employees to the statutory minimum wage		%	2.12	1.73	2.04	
EWP	Annual salary based on the minimum wage		KRW	8,350	8,590	8,720	
	Hourly wages for new male employees	Including regular wages; In case of employment after graduating from a 4-year university	KRW	16,187	16,820	16,928	
	Wage ratio of new male employees to the statutory minimum wage		%	1.94	1.96	1.94	
	Hourly wages for new female employees		KRW	16,187	16,820	16,928	
	Wage ratio of new female employees to the statutory minimum wage		%	1.94	1.96	1.94	

ESG Data (Governance)

Composition of the BOD

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Standing Directors	Persons	6	6	6	
	Comptroller & Auditor General	Persons	1	1	1	
	NonStanding Directors	Persons	7	8	8	
KHNP	Standing Directors	Persons	5	5	5	
	Comptroller & Auditor General	Persons	1	1	1	
	NonStanding Directors	Persons	7	7	7	
KOEN	Standing Directors	Persons	3	3	3	
	Comptroller & Auditor General	Persons	1	1	1	
	NonStanding Directors	Persons	5	5	5	
KOMIPO	Standing Directors	Persons	3	3	3	
	Comptroller & Auditor General	Persons	1	1	1	
	NonStanding Directors	Persons	5	5	5	
KOWEPO	Standing Directors	Persons	3	3	3	
	Comptroller & Auditor General	Persons	1	1	1	
	NonStanding Directors	Persons	5	5	5	
KOSPO	Standing Directors	Persons	3	3	3	
	Comptroller & Auditor General	Persons	1	1	1	
	NonStanding Directors	Persons	5	5	5	
EWP	Standing Directors	Persons	3	3	3	
	Comptroller & Auditor General	Persons	1	1	1	
	NonStanding Directors	Persons	5	5	5	

Gender Diversity in BOD

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Total number of directors	Persons	14	15	15	
	Number of male directors	Persons	13	13	13	
	Number of female directors	Persons	1	2	2	
KHNP	Total number of directors	Persons	12	13	13	
	Number of male directors	Persons	12	11	11	
	Number of female directors	Persons	0	2	2	
KOEN	Total number of directors	Persons	9	9	9	
	Number of male directors	Persons	8	8	8	
	Number of female directors	Persons	1	1	1	
KOMIPO	Total number of directors	Persons	9	9	9	
	Number of male directors	Persons	8	8	9	
	Number of female directors	Persons	1	1	0	
KOWEPO	Total number of directors	Persons	9	9	9	
	Number of male directors	Persons	8	8	8	
	Number of female directors	Persons	1	1	1	
KOSPO	Total number of directors	Persons	9	8	9	
	Number of male directors	Persons	8	7	8	
	Number of female directors	Persons	1	1	1	
EWP	Total number of directors	Persons	9	9	9	
	Number of male directors	Persons	8	8	8	
	Number of female directors	Persons	1	1	1	

BOD Attendance Rate

Corp	Category	Unit	2019	2020	2021	Remarks
KEPCO	Average Board Attendance	%	94.7	98.6	96.8	
	Average attendance rate of standing directors and auditors	%	95.5	100	97.9	
	Average attendance rate of non-standing directors	%	93.9	97.5	95.8	
KHNP	Average Board Attendance	%	91	99	98	
	Average attendance rate of standing directors and auditors	%	92	99	98	
	Average attendance rate of non-standing directors	%	91	100	98	
KOEN	Average Board Attendance	%	96.3	98.9	98.7	
	Average attendance rate of standing directors and auditors	%	93.3	97.7	97.2	
	Average attendance rate of non-standing directors	%	98.7	100	100	
KOMIPO	Average Board Attendance	%	98.3	95.5	97.4	
	Average attendance rate of standing directors and auditors	%	100	94.2	96.4	
	Average attendance rate of non-standing directors	%	97.4	96.3	98.6	
KOWEPO	Average Board Attendance	%	89.9	94.9	94.2	
	Average attendance rate of standing directors and auditors	%	94.5	96.2	90.7	
	Average attendance rate of non-standing directors	%	84.1	93.8	96.7	
KOSPO	Average Board Attendance	%	95.5	94.9	97	
	Average attendance rate of standing directors and auditors	%	97.9	100	100	
	Average attendance rate of non-standing directors	%	94	90	94.6	
EWP	Average Board Attendance	%	93	99	99	
	Average attendance rate of standing directors and auditors	%	91	100	100	
	Average attendance rate of non-standing directors	%	94	98	98	

Status of Ethics/Human Rights Certification and System Introduction

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Introduction of ISO37001 certification		YES/NO	-	-	YES	
	Introduction of ISO37301 certification		YES/NO	-	-	NO	
	Status of Introducing Ethics/ Human Rights Related Certification/Management	K-CP of the Anti-Corruption and Civil Rights Commission, standard model of ethical management of the Ministry of Strategy and Finance, ISO, etc.	-	-	-	Introduced the standard model of ethical management of the Ministry of Strategy	
KHNP	Introduction of ISO37001 certification		YES/NO	-	-	YES	
	Introduction of ISO37301 certification		YES/NO	-	-	YES	
	Status of Introducing Ethics/ Human Rights Related Certification/Management	K-CP of the Anti-Corruption and Civil Rights Commission, standard model of ethical management of the Ministry of Strategy and Finance, ISO, etc.	-	-	-	Introduced the standard model of ethical management of the Ministry of Strategy	
KOEN	Introduction of ISO37001 certification		YES/NO	-	-	YES	
	Introduction of ISO37301 certification		YES/NO	-	-	YES	
	Status of Introducing Ethics/ Human Rights Related Certification/Management	K-CP of the Anti-Corruption and Civil Rights Commission, standard model of ethical management of the Ministry of Strategy and Finance, ISO, etc.	-	-	-	Introduced the standard model of ethical management of the Ministry of Strategy	
KOMIPO	Introduction of ISO37001 certification		YES/NO	-	-	YES	
	Introduction of ISO37301 certification		YES/NO	-	-	On-going	
	Status of Introducing Ethics/ Human Rights Related Certification/Management	K-CP of the Anti-Corruption and Civil Rights Commission, standard model of ethical management of the Ministry of Strategy and Finance, ISO, etc.	-	-	-	Introduced the standard model of ethical management of the Ministry of Strategy	
KOWEPO	Introduction of ISO37001 certification		YES/NO	-	-	YES	
	Introduction of ISO37301 certification		YES/NO	-	-	NO	
	Status of Introducing Ethics/ Human Rights Related Certification/Management	K-CP of the Anti-Corruption and Civil Rights Commission, standard model of ethical management of the Ministry of Strategy and Finance, ISO, etc.	-	-	-	Introduced the standard model of ethical management of the Ministry of Strategy	
KOSPO	Introduction of ISO37001 certification		YES/NO	-	-	YES	
	Introduction of ISO37301 certification		YES/NO	-	-	NO	
EWP	Introduction of ISO37001 certification		YES/NO	-	-	YES	
	Introduction of ISO37301 certification		YES/NO	-	-	NO	

Shareholding Ratio of the Largest Shareholder and Related Parties

Corp	Category		Unit	2019	2020	2021	Remarks
KEPCO	Total number of issued shares with voting rights (common shares)	As of December 31, 2021	Share	641,964,077	641,964,077	641,964,077	
	Largest shareholder or persons with special relationship #1 Government	As of December 31, 2021	%	18.2	18.2	18.2	
	Largest shareholder or persons with special relationship #2 Korea Development Bank	As of December 31, 2021	%	32.9	32.9	32.9	
	Largest shareholder or persons with special relationship #3 Foreigner	As of December 31, 2021	%	24.12	16.58	14.19	
	Others	As of December 31, 2021	%	24.77	32.32	34.71	
KHNP	Capital	As of December 31, 2021	KRW 100 Million	12,122	12,122	12,122	
	KEPCO investment amount	As of December 31, 2021	KRW 100 Million	12,122	12,122	12,122	
	KEPCO share ratio	As of December 31, 2021	%	100	100	100	
KOEN	Capital	As of December 31, 2021	KRW 100 Million	2,976	2,976	2,976	
	KEPCO investment amount	As of December 31, 2021	KRW 100 Million	2,976	2,976	2,976	
	KEPCO share ratio	As of December 31, 2021	%	100	100	100	
KOMIPO	Capital	As of December 31, 2021	KRW 100 Million	1,429	1,429	1,429	
	KEPCO investment amount	As of December 31, 2021	KRW 100 Million	1,429	1,429	1,429	
	KEPCO share ratio	As of December 31, 2021	%	100	100	100	
KOWEPO	Capital	As of December 31, 2021	KRW 100 Million	1,666	1,666	1,666	
	KEPCO investment amount	As of December 31, 2021	KRW 100 Million	1,666	1,666	1,666	
	KEPCO share ratio	As of December 31, 2021	%	100	100	100	
KOSPO	Capital	As of December 31, 2021	KRW 100 Million	2,387	2,387	2,387	
	KEPCO investment amount	As of December 31, 2021	KRW 100 Million	2,387	2,387	2,387	
	KEPCO share ratio	As of December 31, 2021	%	100	100	100	
EWP	Capital	As of December 31, 2021	KRW 100 Million	2,897	2,897	2,897	
	KEPCO investment amount	As of December 31, 2021	KRW 100 Million	2,897	2,897	2,897	
	KEPCO share ratio	As of December 31, 2021	%	100	100	100	

GRI Standards Index

Universal Standards

Classification	Disclosure	Indicators	Page	Note
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Strategy	102-14	Statement from senior decision-make	4-5	
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Ethics and Integrity	102-16	Values, principles, standards, and norms of behavior	158	
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Economic Sector Disclosures

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	201-2	Financial implications and other risks and opportunities due to climate change	152-153	
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Anti-corruption	103-1, 2, 3	Explanation of the material topic and its Boundary, The management approach and its components, Evaluation of the management approach	156-157	
	205-1	Operations assessed for risks related to corruption	159	
	205-2	Communication and training about anti-corruption policies and procedures	160	
	205-3	Confirmed incidents of corruption and actions taken	156-157	

Environmental Sector Disclosures

Classification	Disclosure	Indicators	Page	Note
Energy	103-1, 2, 3	Explanation of the material topic and its Boundary, The management approach and its components, Evaluation of the management approach	68-71	
	302-1	Energy consumption within the organization	-	Not applicable
	302-4	Reduction of energy consumption	59, 90	
	302-5	Reductions in energy requirements of products and services	56	
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	88	
	304-2	Significant impacts of activities, products, and services on biodiversity	92-93	
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	305-5	Reduction of GHG emissions	69, 71, 76-78	
	305-6	Emissions of ozone-depleting substances (ODS)	-	Not applicable
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	80-82, 185	

Social Sector Disclosures

Classification	Disclosure	Indicators	Page	Note
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Occupational Health and Safety	103-1, 2, 3	Explanation of the material topic and its Boundary, The management approach and its components, Evaluation of the management approach	108-111	
	403-1	Occupational health and safety management system	112	
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	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	114	
	403-8	Workers covered by an occupational health and safety management system	112	
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Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	132, 140, 204-206	
	405-2	Ratio of basic salary and remuneration of women to men	207	
Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	163	
Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	98-99	
Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	98-99	
Human Rights Assessment	412-1	Operations that have been subject to human rights reviews or impact assessments	99	
	412-2	Employee training on human rights policies or procedures	100-101, 162-163	
Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	105, 107, 190-191	
	413-2	Operations with significant actual and potential negative impacts on local communities	-	Not applicable
Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	99	
	414-2	Negative social impacts in the supply chain and actions taken	100-101	
Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	44-45, 88, 92	
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	-	
Marketing and Labeling	417-2	Incidents of non-compliance concerning product and service information and labeling	-	Not applicable
	417-3	Incidents of non-compliance concerning marketing communications	-	Not applicable
Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	118-119	
Socioeconomic Compliance	419-1	Non-compliance with laws and regulations in the social and economic area	-	Not applicable

Electric Utilities Sector Disclosures

Classification	Disclosure	Indicators	Page	Note
Organizational Profile	EU 1	Installed capacity	11, 176	
	EU 2	Net energy capacity	11	
	EU 3	Number of residential, industrial, institutional and commercial customer accounts	177	
	EU 4	Length of above and underground transmission and distribution lines	11	
	EU 5	Allocation of CO2e emissions allowances or equivalent, broken down by carbon trading framework	182	
Availability and Reliability	EU 10	Planned capacity against projected electricity demand over the Long term	74	
Research and Development	DMA	Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development (former EU8)	179	
System Efficiency	EU 11	Average generation efficiency of thermal plants by energy source and by regulatory regime	36	
	EU 12	Transmission and distribution losses as a percentage of total Energy	38	
Biodiversity	EU 13	Biodiversity of offset habitats compared to the biodiversity of the affected areas	88	
Employment	DMA	Programs and processes to ensure the availability of a skilled workforce (former EU14)	128	
	DMA	Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors (former EU16)	112-115	
	EU 18	Percentage of contractor and subcontractor employees that have undergone relevant health and safety training	98-101, 112-115	
Local Communities	DMA	Stakeholder participation in decision making processes related to energy planning and infrastructure development (former EU19)	45	
Disaster/ Emergency Planning and Response	DMA	Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans (former EU21)	112-117	
Customer Health and Safety	EU 25	Number of injuries and fatalities to the public involving company assets including legal judgments, settlements and pending legal cases of diseases	N/A	
Accessibility	DMA	Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services (former EU23)	46-51	
	EU29	Average power outage duration	38, 176	
Provision of Information	DMA	Practices to address language, cultural, low literacy and disability related barriers to access and safely use electricity and customer support services (former EU24)	121	

TCFD Recommendations

Classification	Key Disclosures	Page
Governance	BOD's oversight of climate-related risks and opportunities CDP 2021 questions: C1.1b	P. 26-27, 72
	Management's role in assessing and managing climate-related risks and opportunities CDP 2021 questions: C1.2, C1.2a	P. 68, 72
Strategy	Climate-related risks and opportunities the organization has identified over the short, medium, and long term CDP 2021 questions: C2.1a, C2.2a, C2.3, C2.3a, C2.4, C2.4a	P. 46-47, 56, 59, 62-65, 73-77
	The impact of climate related risks and opportunities on the organization's businesses, strategy, and financial planning. CDP 2021 questions: C2.3a, C2.4a, C3.1, C3.2a, C3.3, C3.4	P. 57, 60-65, 74, 77
	The resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario CDP 2021 questions: C3.2, C3.2a	P. 62-65, 76-77, 153
Risk Management	Organization's processes for identifying and assessing climate-related risks CDP 2021 questions: C2.1 C2.2, C2.2a	P. 72, 150, 152
	Organization's processes for managing climate-related risks. CDP 2021 questions: C2.1, C2.2, C2.2c, C2.2d	P. 72, 150, 152
	How processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management CDP 2021 questions: C2.1, C2.2	P. 150-151
Metrics and Targe	The metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process CDP 2021 questions: C8.2, C8.2a, C8.2b, C8.2c, C8.2d, C11.3a	P. 21, 68-71, 153
	Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. CDP 2021 questions: C6.1, C6.3, C6.5, C7.1a, C7.2, C7.3b, C7.5, C7.6b	P. 78-79, 180-181
	The targets used by the organization to manage climate-related risks and opportunities and performance against targets. CDP 2021 questions: C4.1, C4.1a	P. 56, 62, 64, 69-71, 78

SASB Standards

Topic	Code	Accounting Metric	Category
Greenhouse Gas Emissions	IF-EU-110a.1	(1) Gross global Scope 1 emissions, percentage covered under (2) emissions-limiting regulations, and (3) emissions-reporting regulations	Qualitative indicators
	IF-EU-110a.2	Greenhouse gas (GHG) emissions associated with power deliveries	Quantitative indicators
	IF-EU-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Quantitative indicators
	IF-EU-110a.4	Percentage fulfillment of RPS target by market	Quantitative indicators
Air Quality	IF-EU-120a.1	(1) NOx, (2) SOx, (3) particulate matter (PM10)	Quantitative indicators
Water Management	IF-EU-140a.1	Total water used	Quantitative indicators
	IF-EU-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	Qualitative indicators
	IF-EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	Qualitative indicators
Coal Ash Management	IF-EU-150a.1	Amount of coal combustion residuals (CCR) generated; percentage recycled	Quantitative indicators
	IF-EU-150a.2	Total number of coal combustion residual (CCR) impoundments, broken down by hazard potential classification and structural integrity assessment	Quantitative indicators
Energy Affordability	IF-EU-240a.1	Average retail electric rate for (1) residential, (2) commercial, and (3) industrial customers	Quantitative indicators
	IF-EU-240a.2	Typical monthly electric bill for residential customers for (1) 500 kWh and (2) 1,000 kWh of electricity delivered per month	Quantitative indicators
	IF-EU-240a.3	Number of residential customer electric disconnections for non-payment, percentage reconnected within 30 days	Quantitative indicators
	IF-EU-240a.4	Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory	Qualitative indicators

Page	KEPKO Information
P. 78	(1) 171.26 million tCO2-eq, (2) 100%, (3) 100% * Scope 1 emissions were calculated based on KEPCO and six power generation companies.
P. 78	In the short term, with the establishment of a coal-free and decarbonization roadmap, some coal power plants are being abolished or replaced with LNG. In the long term, we plan to phase out coal-fired power plants and expand hydrogen-based power generation projects.
P. 20, 21, 68, 69, 70, 71, 72, 73	We are promoting six key roles and tasks in the electric power industry such as system construction, operational optimization, and carbon neutral R&D To lead carbon neutrality by establishing 'KEPCO's role and tasks to achieve 2050 Carbon Neutrality and cooperation plan for group companies'
P. 56	As six power generation subsidiaries of KEPCO fall under the obligation to supply under the RPS system, we plan to expand the installed generation capacity based on the rated capacity to 77.8GW, increasing the share of renewable energy generation to 40% by 2034.
P. 25, 81, 82	(1) 27,419 tons, (2) 22,988 tons, (3) 1,606 tons * Air pollutant emissions are calculated based on KEPCO and 6 power generation subsidiaries
P. 85, 184	KEPCO selected water consumption as one of the specific performance indicators in terms of practicing environmental management. We manage our performance and goals related to water consumption every year. we established a system to report and verify company-wide water consumption by regional division, month, and year
-	N/A
P. 86	Regarding our overseas projects, UAE and Jordan are regarded as water-stressed countries according to water-stressed country classification criteria such as WRI and PAI. Accordingly, we use seawater, not groundwater, as cooling water in such countries in an effort to minimize exposure to water risks.
P. 83, 87	KEPCO's power generation subsidiaries are expanding the recycling of coal ash and gypsum waste in order to promote resource circulation. Additionally, they are continuously promoting the development of technology to turn by-products of power generation into resources.
-	There is no report because it is not aggregated according to the Federal Emergency Management Agency (FEMA) potential risk classification recommended by SASB
P. 151	Reflecting the increase in international oil prices, the basic oil rate was announced in December 2021, and was set at KRW 46.6 per kWh, up KRW 9.8 won per kWh from the previous rate. Considering the burden on the people, it was decided to increase the base fuel costs by dividing them into KRW 4.9/kWh in April and KRW 4.9/kWh in October 2022
-	(1) Residential low voltage : KRW 113,860, Residential high voltage : KRW 92,410, (2) Residential low voltage : KRW 283,110, Residential high voltage : KRW 224,710 * Based on electricity rates as of the end of 2020. No rate discounts are applied
-	KEPCO is supplying the minimum electricity (660W) necessary for daily life for residential housing customers subject to cancellation of electricity use contract when they fail to pay electricity bills by the 2nd month from the due date by installing a current limiter instead of a power outage.
-	Under the Electricity Business Act, electricity sales businesses cannot refuse to supply electricity without a justifiable reason prescribed by Presidential Decree, and KEPCO does not infringe on customers' access to energy due to external factors

SASB Index

Topic	Code	Accounting Metric	Category
Workforce Health & Safety	IF-EU-320a.1	(1) Total Recordable Incident Rate (TRIR), (2) fatality rate, and (3) Near Miss Frequency Rate (NMFR)	Quantitative indicators
End-Use Efficiency & Demand	IF-EU-420a.1	Percentage of electric utility revenues from rate structures that (1) are decoupled and (2) contain a Lost Revenue Adjustment Mechanism (LRAM)	Quantitative indicators
	IF-EU-420a.2	Percentage of electric load served by smart grid technology	Quantitative indicators
	IF-EU-420a.3	Customer electricity savings from efficiency measures, by market	Quantitative indicators
Nuclear Safety & Emergency Management	IF-EU-540a.1	Total number of nuclear power units	Quantitative indicators
	IF-EU-540a.2	Description of efforts to manage nuclear safety and emergency preparedness	Quantitative indicators
Grid Resiliency	IF-EU-550a.1	Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations	Quantitative indicators
	IF-EU-550a.2	(1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI)	Quantitative indicators
Basic Information	IF-EU-000.A	Number of : (1) residential, (2) commercial, and (3) industrial customers served	Quantitative indicators
	IF-EU-000.B	Total electricity delivered to : (1) residential, (2) commercial, (3) industrial, (4) all other retail customers, and (5) wholesale customers	Quantitative indicators
	IF-EU-000.C	Length of transmission and distribution lines	Quantitative indicators
	IF-EU-000.D	Total electricity generated, percentage by major energy source, percentage in regulated markets	Quantitative indicators
	IF-EU-000.E	Total wholesale electricity purchased	Quantitative indicators

Page	KEPKO Information
P. 109, 112, 192, 193	We require each Office, electric power companies, and other group companies to obtain third-party certification (ISO45001, KS Q ISO 45001, etc.) for Safety and Health Management System or encourage them to train their own internal auditors to review the Safety and Health Management System.
-	N/A
P. 51, 61	By supplying AMI (Advanced Metering Infrastructure), a remote metering infrastructure, to 22.5 million households by 2024, KEPKO is striving to improve energy efficiency, apply seasonal and hourly plans, etc. to ensure customers' options and create new energy business models. As of the end of 2021, KEPCO has completed the construction of the Intelligent Power Metering System (AMI) for approximately 10.72 million households.
P. 74	KEPCO recognizes the need for omnidirectional efficiency improvement in the electricity demand market and is promoting various energy efficiency improvement projects centered on the EERS (Energy Efficiency Resource Standard) system. A total of 1,062 GWh was saved through the EERS in 2021
P. 11, 172	As of the end of 2021, there are 24 nuclear power plants operated by KHNP, a nuclear power subsidiary of KEPCO, with an installed capacity of 23,250MW, generating 158,015GWh.
P. 37	KEPCO has achieved ‘zero information security accident’, ‘active participation in cyber security contest of government agencies and achieved the Highest Score (No. 1 at the contest held by the National Intelligence Service, No. 1 at the contest held by the Ministry of Trade, Industry and Energy)’.
P. 111, 118	KEPCO has achieved ‘zero information security accident’, ‘active participation in cyber security contest of government agencies and achieved the Highest Score (No. 1 at the contest held by the National Intelligence Service, No. 1 at the contest held by the Ministry of Trade, Industry and Energy)’.
P. 38, 42	KEPCO is establishing an optimal system plan based on predictions of future electricity demand and power generation facility configuration. We supply electricity stably and economically through timely completion of transmission and substation facilities and optimal operation and efficiency of transmission facilities
P. 177	-
P. 177	-
P. 11	-
P. 11	-
P. 11	-

Independent Assurance Statement

Dear KEPCO and Group companies' Stakeholders

KOSRI(hereinafter referred to as the assurance provider) was requested by the Korea Electric Power Corporation(KEPCO) for a third-party assurance of the '2022 KEPCO and KEPCO & Group Companies Sustainability Report'(hereinafter referred to as the 'Report'). The assurance provider worked in good faith according to the internationally accepted assurance methodology.

Report's Scope

The assurance provider assured key information included in the report, such as sustainability management policies, systems, activities, performance, and goals of KEPCO and its six group companies. Quantitative information in the report included data from the past three or five years, and qualitative information included activities from January 1, 2021 to December 31, 2021 in the scope of verification. For specific subjects, data and activities until 2022 were included in the scope of verification.

Description of Methodology

The assurance provider conducted assurance engagement to Type 1 and Moderate levels of AA1000AS v3, and also checked compliance with the four principles of AA1000AP(2018). In addition, it was assured whether the 'specific subject matter' derived from the materiality test satisfies the disclosure standards of the GRI Standards.

- In order to confirm that KEPCO correctly grasps issues raised by stakeholders, the approach, such as setting the scope and target of stakeholders and stakeholder engagement procedures, was confirmed.
- Reviewed the issue identification and decision process of KEPCO and its six power generation subsidiaries to ensure that KEPCO's material sustainability management issues are reflected in the report.
- We reviewed KEPCO's internal documents and records to see if they matched the information contained in the report. We focused on assuring that there were no significant errors, omissions, or misrepresented information.
- Through KEPCO's on-site inspection, we identified items that require detailed assurance such as performance data and certificates, and conducted internal employee interviews related to the information included in the report.
- Only written assurance was performed for the 'Electronic Disclosure System Disclosure Data' and 'Korea Electric Power Corporation and Electric Power Group Company Website' posted materials, and among the reporting boundaries, information from outside (KEPCO's partners, contractors, etc.) was excluded from the scope of verification.

Classification		Indicators
Universal Standards		Organizational Profile(102-1~13), Strategy(102-14,15), Ethics and Integrity(102-16, 17), Governance(102-18, 102-22~25, 102-29, 35, 36, 38, 40), Stakeholder Engagement(102-41~45), Reporting Practice(102-46~56), The management approach method(103-1~3)
Topic-specific Standards	Economic	Economic Performance(201-1~2), Industry Economic Effects(203-1,2), Anti-corruption(205-1~3)
	Environmental	Energy(302-1, 4, 5), Biodiversity(304-1~3), (엔터) Emissions(305-1~5, 7)
	Social	Employment(401-1, 3), Occupational Health and Safety(403-1~10), Training and Education(404-1, 2), Diversity and Education(405-1, 2), Non-discrimination(406-1), Child Labor(408-1), Forced or Compulsory Assessment(409-1), Human Rights Assessment(412-1, 2), Local Communities(413-1), Supplier Social Assessment(414-1, 2), Customer Health and Safety(416-1), Customer Privacy(418-1)

Conclusions

The assurance provider confirmed that this report reflects the sustainability management policies, systems, activities, achievements, and goals of KEPCO and its group companies at an objective and reliable level. In addition, we were unable to find anything that would cause us to judge that the information contained in the report did not match the data actually being managed or that the assumptions used in the report preparation process were inappropriate. The assurance provider determines that the report complies with the 'Core' Option requirements of the GRI Standards.

• Inclusivity

It has been confirmed that KEPCO and its group companies are actively communicating with stakeholders through internal and external communication channels. Key stakeholders re defined as 8 groups, including shareholders, investors, government agencies, and citizens/customers, and various opinions are collected in consideration of the characteristics of each group.

• Materiality

It has been confirmed that KEPCO and its group companies are actively communicating with stakeholders through internal and external communication channels. Key stakeholders redefined as 8 groups, including shareholders, investors, government agencies, and citizens/customers, and various opinions are collected in consideration of the characteristics of each group.

• Responsiveness

It has been confirmed that KEPCO is reflecting key issues that affect stakeholders in its sustainability management strategy, and that the implementation status of its sustainability management strategy is described in the report. In addition, KEPCO is effectively promoting sustainability management strategies through the ESG Committee and other subcommittees.

• Impact

KEPCO and group companies identify the impact of sustainability management on the natural environment, social capital, local community and other stakeholders, set performance indicators(KPIs) to maximize positive impacts and minimize negative impacts, It was confirmed that the results and future plans were presented.

Limitations

The assurance provider assured the accuracy of the information presented in the Report, as in the aforementioned assurance scope. Errors, omissions, or false descriptions caused by the creation, processing, conversion, etc. of the information described in the report were not assured. In addition, KEPCO's financial statements, 「Electronic disclosure system disclosure data」, 「Korea Electric Power Corporation and Group companies homepages」 posted materials were only referenced during assurance, and the data themselves are not included in the scope of assurance.

Recommendations

The assurance provider highly appreciates the attempt to publish an 'Integrated report' that summarizes the sustainability management performance of KEPCO and electric power group companies. Publication of an integrated report is a groundbreaking change that can identify sustainability factors in the power industry at the same time by raising stakeholder awareness of the power industry value chain and delivering value-creating activities by business unit, such as power generation, transmission and distribution, and transformation. In the future, it is recommended to expand the scope of information disclosure step by step by specifying and internalizing data management indicators and standards that can indicate the integration performance of KEPCO and group companies. In addition, strategic tasks for sustainability management need to be presented as performance compared to plans in the annual integrated report so that stakeholders can continuously observe and pay attention to them.

Independence and Competency

The assurance provider employs appropriately qualified assurance auditors and all assurance results are reviewed responsibly internally to ensure compliance and transparency of the approach applied. The assurance provider does not have any interests that may hinder independence and fairness by engaging only this assurance audit with KEPCO.

임팩트 파트너 KOSRi Korea Sustainability Reporting Initiative

AA1000 Licensed Report 000-402/V3-WQS8E

10-Dec. 2022
KOSRI **J.Y. Kim**

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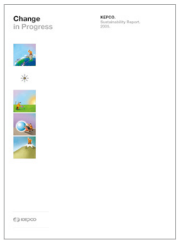

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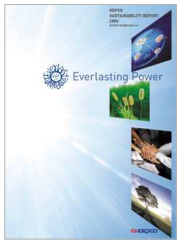

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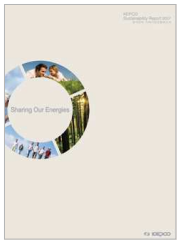

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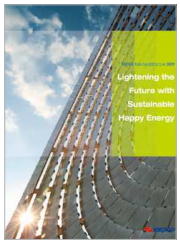

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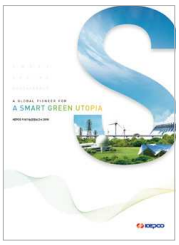

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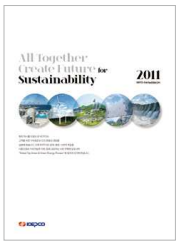

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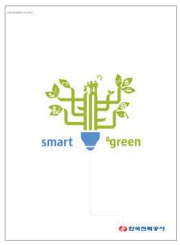

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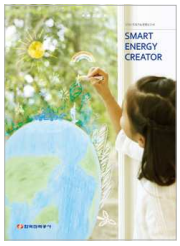

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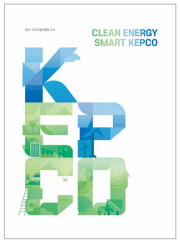

2021

2021-2022

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Contact Information

This report can be viewed and downloaded on the KEPCO website. For comments on the report, please contact the information below.

| Website | http://www.kepco.co.kr

| Department in charge | Management Planning Team, Corporate Planning Department

| Phone | +82-61-345-3522

| E -Mail | biz-sustainability@kepco.co.kr

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