

Korea Western Power Co., Ltd.

Green and Sustainability Financing Framework

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1. Background

1.1 Business Overview

Korea Western Power Co., Ltd. (the "Company" or "KOWEPO") is one of six subsidiaries for power generation separated from the Korea Electric Power Corporation ("KEPCO") in 2001 in accordance with the Act on the Promotion of Restructuring of the Electric Power Industry of the Korean Government. Engaged in the development and generation businesses of electric power resources, KOWEPO's generation capacity is 8.5% of the entire domestic generation capacity, with 11,441MW of installed capacity (as of end of 2021).

In order to achieve the Company's vision of "The Global Leader in eco-friendly energy opening a new era", KOWEPO intends to reinforce its sustainable management to pre-emptively respond to climate change risks while fulfilling its social responsibilities.

1.2 KOWEPO Vision 2035

KOWEPO established the 'KOWEPO Vision 2035' strategy in 2021 to prepare for sustainable growth in the mid to long term. The strategy incorporates the megatrend of reducing thermal power and expanding renewable energy in an effort to achieve carbon neutrality by 2050 through energy transition. KOWPEO will seek to supply safe and clean energy through continued innovation, in order to 1) lead the eco-friendly, low-carbon energy industry; 2) achieve sustainable growth based on financial stability; 3) produce social value through citizen's trust.



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1.3 ESG Management Framework

KOWEPO has established an ESG Management Framework in 2021 to enhance corporate value and ESG management capabilities.



- 1. Establish ESG Management Strategy
 - Goals include achieving 2050 Carbon Neutrality, Grade 'A' on response to CDP Climate Change, and highest rating on K-ESG
- 2. Establish Monitoring System for ESG Related Tasks
 - Establish ESG Committee within board of directors to review ESG related business plans and management strategy
 - Establish internal task force to manage and execute ESG related tasks
 - Enhance subject-matter expert involvement on ESG issues by utilizing sustainable management advisors
- 3. Strength ESG Disclosure and External Review Response
 - Continued involvement on K-ESG, CDP reviews
 - Revising sustainability reports based on global standards such as TCFD, SASB

KOWEPO 2050 Net-Zero Plan

KOWEPO has established a 2050 Net-Zero Roadmap in 2022 by setting carbon reduction targets for 2030 and 2050. KOWEPO seeks to reduce carbon emissions by 44% in 2030, and 100% by 2050, compared to 2018 emission levels.



GHG Emission Forecast (million ton CO2eq)

1.4 Renewable Energy 3535

KOWEPO aims to strengthen its role in the large-scale, new and renewable energy business sector by securing new growth engines from eco-friendly energy sources, and by actively responding to the government's new and renewable energy promotion policies. With the goal of expanding new and renewable energy to 35 percent or more of total power generation by 2035, KOWEPO has established a 'Renewable Energy 3535 Roadmap' and expanded the scope of its projects.



Expansion of Large-scale complex projects and profit-sharing model

KOWEPO is developing onshore solar power projects using idle land such as closed saltern and pasture, and offshore solar power projects through cooperation with public offices and local municipals. The Hapcheon 41MW offshore solar power project that was finished in 2021 was a local acceptance project cooperating with the local municipality, boasting a size of four soccer fields. Also, KOWEPO is building a local community development model that co-exists with local citizens and fosters the local economy by participating in the Saemangeum 73MW offshore solar power project, while also partaking in large-scale offshore solar projects such as the Ansan Shihwa 102.5MW project.

WP 3·3·7 Project

KOWEPO is accelerating development of wind power projects through the WP 3·3·7 Project, which aims to lead the world's top 5 wind-power operating countries through achieving, by 2030, 3GW offshore wind power and 700MW onshore wind power capacity. The Youngwol Ecowind project started construction in 2021, which seeks to add 11 wind power generators (total 46.2MW) by 2023. The project is expected to produce 73GWh of clean energy per year, and allow KOWEPO to secure 90,000 REC. KOWEPO is also working on various profit sharing projects, citizen involvement projects, and municipal cooperation projects to increase its onshore wind power capacity, such as the Gunwi 82.5MW, Taebaek 16.8MW, while also working on various offshore wind power capacity projects such as the Taean 1.8GW and the Wando 400MW.

New Projects aimed at implementation of Clean Hydrogen Portfolio Standard

KOWEPO is preparing to diversify its projects ahead of the implementation of the Clean Hydrogen Portfolio Standard. KOWEPO is working on Korea's first 'daily living bio-gas clean hydrogen fuel cell project' that directly supplies bio-gas from houses and public facilities to fuel cells. KOWEPO is also participating in the Pyongtaek hydrogen complex construction project to develop fuel cells using blue hydrogen created in the complex. This project uses clean hydrogen that captures CO2, which is different from reformed hydrogen which uses natural gas. The company also kicked off the Mungyeong 40MW urban regeneration fuel cell project to respond to the government's New Deal strategy. This project will install a 40MW fuel cell in the Mungyeong area, and is expected to contribute to various social value creation including energy welfare, job creation due to construction and operation of the project, as well as supplementing KOWEPO's revenue and mandatory RPS requirements.

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2. KOWEPO's Green and Sustainability Financing Framework

KOWEPO has developed this Green and Sustainability Financing Framework (the "**Framework**"), with an intention of reflecting KOWEPO's latest environmental commitments and sustainability strategies, and ensuring the transparency, disclosure and quality of the KOWEPO's potential Green and Sustainability Bonds or Loans (collectively referred to as "**Sustainable Financing Instruments**").

KOWEPO's Sustainable Financing Instruments structured under this Framework are designed to be aligned with the (i) Green Bond Principles 2021 and (ii) Sustainability Bond Guidelines 2021 published by the International Capital Markets Association ("ICMA"), as well as the (iii) Green Loan Principles 2021 and (iv) Social Loan Principles 2021 jointly published by the Loan Market Association ("LMA"), Asia Pacific Loan Market Association ("APLMA") and Loan Syndications and Trading Association ("LST").

This Framework governs the issuance of the following debt instruments by KOWEPO:

- Green Bonds or Loans to finance and/or to refinance eligible green projects; or
- Sustainability Bonds or Loans to finance and/or to refinance a mix of eligible green projects and eligible social projects

KOWEPO prepared this Framework under the following four core components:

- 1. Use of Proceeds
- 2. Process for Project Evaluation and Selection
- 3. Management of Proceeds
- 4. Reporting

2.1 Use of Proceeds

All of the net proceeds of KOWEPO's Sustainable Financing Instruments will be used to finance and/or refinance, in whole or in part, new and/or existing Eligible Green and/or Social projects ("Eligible Projects") falling within one of the eligible project categories as defined below.

Eligible Green Categories

- Renewable Energy
- Eco-friendly Hydrogen
- Energy Efficiency

Eligible Social Categories

- Socio Economic Advancement and Empowerment
- Small-Medium Enterprise (SME) Support



Eligible Green Projects

Eligible Green Categories	Eligibility Criteria	UNSDG Mapping
Renewable Energy	 Acquisition, construction, installation, deployment, operation, research, development, maintenance and upgrade of facilities, equipment, infrastructure or technologies related to renewable energy including: Solar; Wind (onshore and offshore); Biomass (life-cycle GHG emission intensity below 100g CO₂e/kWh and using sustainable feedstock¹); Geothermal (life-cycle GHG emission intensity below 100g CO₂e/kWh); Run-of-river hydropower (no artificial reservoir) or hydropower (power density of electricity generation facilities > 5 W/m² or life-cycle GHG emissions threshold < 100gCO₂e/kWh); and Tidal and wave power 	7 AFFORDABLE AND CLEAN ENERGY SDG 7.2
Eco-friendly Hydrogen	 Production of hydrogen of which the life-cycle GHG emission intensity is below 3tCO₂e/tH₂, including: Green Hydrogen (using the water electrolysis technology); Bio-hydrogen (using thermococcus onnurineus – biomass in ocean); Hydrogen production using plastic waste 	7 AFFORDABLE AND CLEAN ENERGY
Energy Efficiency	 Acquisition, installation, maintenance and upgrade of the energy efficient equipment or facilities including: Buildings and facilities with energy efficiency solutions (e.g. LED lighting, smart metering, roof / wall / floor insulation, high efficiency boilers). Such project shall achieve at least 20% improvement in the energy efficiency Research, development, acquisition, construction, maintenance and upgrade of Energy Storage Systems ("ESS") fully dedicated to serving renewable energy generation facilities 	7 AFFORDABLE AND CLEAN ENERGY SDG 7.3

¹ Sustainable feedstock refers to the feedstock that is not derived from sources of high biodiversity, not completing with food sources and not depleting carbon pools. The only timber feedstock allowed is waste wood

Eligible Social Projects

Eligible Social Categories	Eligibility Criteria	UNSDG Mapping
Socio Economic Advancement and Empowerment	 Support the disadvantaged groups including the high school graduates, the disabled, the elderly² and the back-to-work women returners to promote employability³ Provide leadership training for women (e.g. KOWEPO's Female Leadership Training program) to foster greater gender diversity and create opportunities in management positions training and innovative job creation in rural areas⁴ Support the development of rural communities (e.g. agriculture and fishery)⁵ as defined under Korean Government's "Agricultural-Fishery Win-Win Cooperative Fund" and people living under poverty⁶ 	8 DECENT WORK AND ECONOMIC GROWTH SDG 8.2
Small-Medium Enterprise (SME) Support	 Finance SMEs⁷ (R&D, financial support and shared growth projects) to promote employment and economic growth 	8 DECENT WORK AND ECONOMIC GROWTH SDG 8.3

Exclusionary Criteria

The following projects/activities are ineligible for the Use of Proceeds of KOWEPO's Sustainable Financing Instruments:

- Nuclear energy technology, equipment or infrastructure;
- Fossil-fuel based electricity production;
- Extraction, refining or transportation of fossil fuels;
- Production or refining of palm oil;
- SME with main business falling into IFC Exclusion List⁸; and
- Sectors which are prohibited by laws and regulation in Korea

⁶ As defined by National Basic Living Security Act Article 7 and/or other relevant official definitions by the South Korean government entities.

⁷ KOWEPO has supported SMEs (incl. small enterprises with less than 5 employees) located also in rural economies through 1 year loans (rollable) with a very low interest rate. SME support also includes the financing of SMEs' facilities and operations in the recycling sector

² As defined as individuals who are 60 years old or above.

³ Promoting employability can include groups such as the underprivileged, specialized high school students or farmers and fishermen

⁴ Examples of a programmes KOWEPO worked on is the Greenhouse Gas Reduction Supporters initiative in which a training course for 'Agriculture-specific Greenhouse Gas Reduction project managers' and the KOWEPO agreement with the Foundation of Agri. Tech. Commercialization & Transfer (FACT) to cooperate in creating innovative jobs in rural villages

⁵ Pursuant to the government's project 'Agricultural-Fishery Win-Win Cooperative Fund'

⁸ https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/company-resources/ifcexclusionlist



2.2 Process for Project Evaluation and Selection

The Process for Project Evaluation and Selection ensures that the net proceeds of the KOWEPO's Sustainable Financing Instruments are allocated to projects that meet the eligibility criteria as defined in the Use of Proceeds section of the Framework.

The Eligible Projects are assessed and identified using KOWEPO's criteria indicated above. Only projects that meet one of the eligibility criteria may benefit from the financing of the KOWEPO's Sustainable Financing Instruments.

KOWEPO has established a dedicated Sustainability Working Group ("SWG") which implicate the following teams/ departments across KOWEPO to oversee the selection of Eligible Projects, their compliance with the eligibility criteria described in the Framework and to ensure that allocations are made to Eligible Projects as specified above:

- Planning and Control Office;
- Budget and Financing Office;
- New and Renewable Energy Management Team;
- Research and Development Team;
- Carbon Neutrality Strategy Team;
- Overseas Business Management Team; and
- Other functional teams/departments (as required).

The role of the SWG will be:

- Reviewing, selecting and validating the existing pool of Eligible Projects based on the Framework;
- Replacing Eligible Projects that no longer meet the eligibility criteria as defined in the Use of Proceeds section of the Framework (e.g. divestment, liquidation, concerns regarding alignment of underlying activity with eligibility criteria, etc.);
- Reviewing and validating the new investments or projects to be included in the pool of Eligible Projects;
- Validating and verifying annual reporting for KOWEPO's Sustainable Financing Instruments;
- Monitoring on-going evolution related to the Sustainable Capital Markets practices in terms of disclosure/reporting in order to be in-line with best market practices; and
- Reviewing the Framework to reflect any changes with regards to the Company's sustainability strategies and initiatives;

The list of Eligible Projects will be managed by KOWEPO's Budget and Financing Office. The look-back period for refinancing Eligible Projects is 36 months.

KOWEPO strictly observes the national environmental regulations and policies to implement its compliance obligations related to the environmental management system, and acquired the ISO14001 (Environmental Management System) certification to mitigate environmental risks commonly associated with its Eligible Projects.



Focusing on health and safety, KOWEPO has established the Enterprise-Wide Safety-First Management System to communicate its vision to make safety the top priority in management. With a core value to prioritizing the life and safety of workers, a safety and disaster management implementation system was established to strive for the zero-death and zero-accidents targets among workers by complying with safety and health laws and regulations, including the ISO45001 (Global Safety and Health Management System) standard.

Meeting will be held on an annual basis and when required by the SWG to review the proceed allocation to ensure that the proceeds are fully earmarked to a portfolio of Eligible Projects in alignment with the eligibility criteria throughout the tenor of the KOWEPO's Sustainable Financing Instruments. Allocated assets that no longer fulfil the eligibility criteria will be replaced by other Eligible Projects. At any time of the lifetime of the Sustainable Financing Instruments, the outstanding amount will not exceed the value of Eligible Projects.

2.3 Management of Proceeds

The net proceeds of each KOWEPO's Sustainable Financing Instrument issuances will be deposited in KOWEPO's general account and an amount equal to the net proceeds will be earmarked for allocation to the Eligible Projects as selected by the SWG. The payment of principal and interest on any financing issued by KOWEPO under this Framework will be made from our general funds and will not be linked to the performance of any Eligible Projects.

The Budget and Financing Office will track internally with the use of a register to make sure that proceeds raised from the KOWEPO's Sustainable Financing Instruments to be allocated to Eligible Projects. The register will include the below proceed allocation information:

- Name and description of Eligible Projects to which the proceeds have been allocated
- Allocated amount of the proceeds of the KOWEPO's Sustainable Financing Instruments to Eligible Projects
- The balance of unallocated proceeds
- Information of temporary investment for unallocated proceeds (if applicable)
- Other relevant information

Pending the allocation or reallocation, as the case may be, of the net proceeds, KOWEPO will invest the balance of the unallocated net proceeds, at its own discretion, temporarily in cash, cash equivalents, and short-term money market instruments, as per KOWEPO's liquidity management policy.

KOWEPO intends to fully allocate the net proceeds into Eligible Projects within 24 months after launch of a Sustainable Financing Instrument on the best effort basis.

In case of divestment or cancellation of an allocated asset, or if an allocated project no longer meets the eligibility criteria, KOWEPO shall reallocate the proceeds to other Eligible Projects on a timely basis.



2.4 Reporting

For Green or Sustainability Bonds:

Within one year of the Green or Sustainability Bond issuance, and until full allocation of the proceeds, KOWEPO will disclose publicly the information of allocation reporting and impact reporting on an annual basis in the annual Sustainability Report or in a standalone Green or Sustainability Bond Report. Upon material changes of projects allocated and a replacement has been made, KOWEPO will also update investors via an allocation update report. These reports will be publicly available on KOWEPOs' website.

The following information will be disclosed as per each Sustainable Financing Instrument:

Allocation Reporting

- The list of Eligible Projects, including brief project descriptions (subject to confidentiality agreements);
- The aggregated amount of allocated proceeds to the Eligible Projects per Eligible Green or Social Category;
- Remaining balance of unallocated proceeds
- Allocated amount vs. total amount (in %)
- The proportion of proceeds allocated to financing and/or refinancing

Impact Reporting

KOWEPO will provide the expected positive environmental and/or social benefits as per Eligible Green or Social Category. When feasible, KOWEPO will report on relevant impact calculation methodology and assumptions.

Eligible Green Categories	Potential Impact Indicators
Renewable Energy	 Installed renewable energy capacity (in MW) Annual GHG emissions avoided (in tons of CO₂e) Annual renewable energy production (in MWh)
Eco-friendly Hydrogen	 Annual GHG emissions avoided (in tons of CO₂e) Annual green hydrogen production (in tons of H₂)
Energy Efficiency	 Energy efficiency improved post-project (in %) Annual energy savings (in MWh) Energy storage capacity (in MW)

Below are examples of impact indicators that may be reported for Impact Reporting:



Eligible Social Categories	Potential Impact Indicators
Socio Economic Advancement and Empowerment	 Number of beneficiaries supported Amount of social contribution spent and others
Small-Medium Enterprise (SME) Support	 Number of SME loans granted Number of jobs created / maintained Number and types of beneficiaries supported

For Green or Sustainability Loans:

Subject to respective loan agreement, KOWEPO shall disclose information on the allocation of proceeds, and provide relevant information on the environmental and/or social impacts of Eligible Projects where feasible. Subject to the agreement and preference of the lenders, KOWEPO may disclose the relevant information in the annual Sustainability Report or in a standalone Green or Sustainability Loan Report.

3. External Review

KOWEPO's Green and Sustainability Financing Framework has been reviewed by DNV as an independent third party. DNV was appointed to provide a Second Party Opinion (the "SPO") to verify the Framework's alignment with the (i) Green Bond Principles 2021, (ii) Sustainability Bond Guidelines 2021, (iii) Green Loan Principles 2021, and (iv) Social Loan Principles 2021. The SPO report is available on KOWEPO's website.