Korea East-West Power Co. Ltd

GREEN AND SUSTAINABILITY BOND FRAMEWORK

April 2022

1. Background

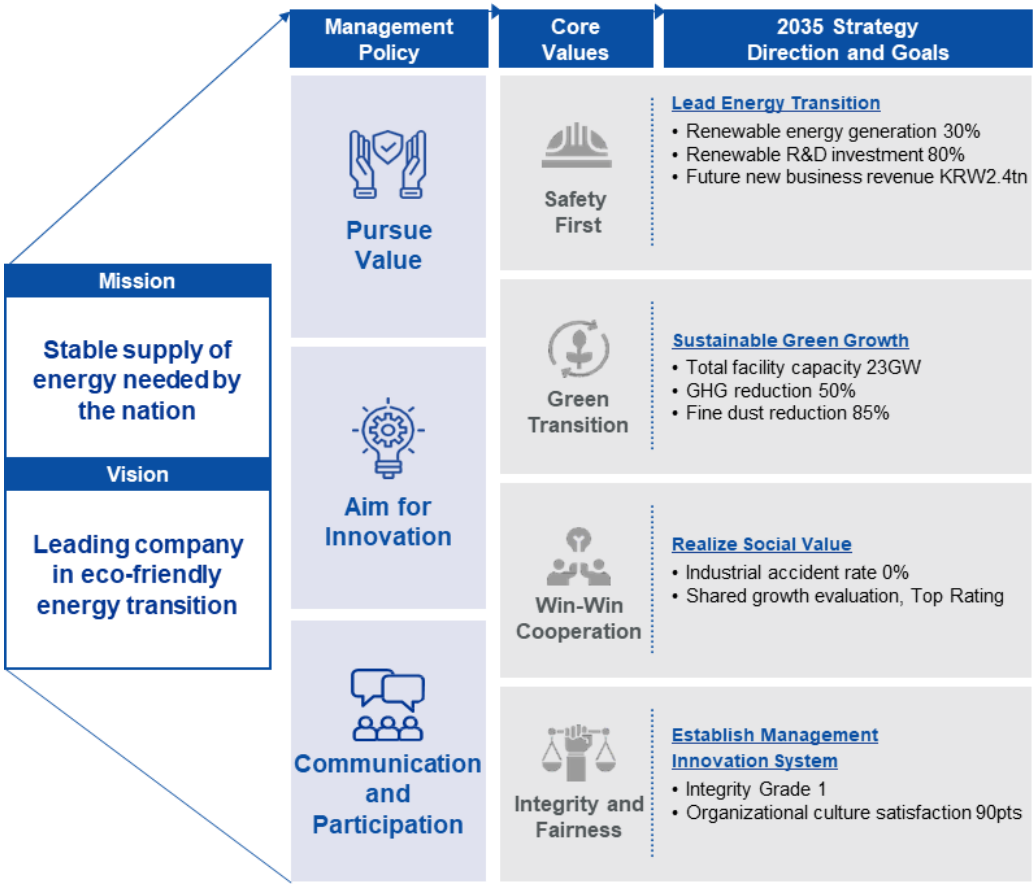
1.1 Business Overview

Korea East-West Power Co., Ltd. (the "Company" or "EWP") is one of the 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, EWP's generation capacity is 8.4% of the entire domestic generation capacity, with 11,276MW (except for the invested assets) of installed capacity (as of end of 2021).

In order to achieve the Company's vision of "leading company in eco-friendly energy transition", EWP intends to reinforce its sustainable management to become such company that preemptively responds to climate changes risks while fulfilling its social responsibilities.

1.2 EWP's 2035 Mid- to Long-term ESG Management Strategy

EWP re-established the ESG management strategy in 2021 in order to cope with external environmental changes (such as net zero ambition) and to be on the forefront of energy transition. The Company aims at contributing to the sustainable development of the international community while managing the mid- to long-term goals and achievements in connection with the ESG management focal projects and the UN SDGs. The 4 mains goals by 2035 include 1) Leading Energy Transition, 2) Sustainable Green Growth, 3) Realize Social Value and 4) Establish Innovative Management System



1.3 Response to Climate Change

Supervision of the BOD on Climate Change

EWP has newly organized the **ESG Committee in June 2021 to create a company-wide decision-making system at the level of the BOD**. The ESG Committee is composed of three non-executive directors, and its purpose is to establish ESG management strategies including climate change response activities while inspecting ESG achievements, risks, etc. In principle, the ESG Committee is held quarterly; special committee meetings can be held if necessary.

Climate change response activities and major related achievements discussed by the ESG Committee are reported to the BOD. As the department overseeing ESG management, the Planning Department under the Planning Division is in charge of establishing company-wide ESG pursuance plans, identifying management tasks, conducting outcome monitoring, etc. The Climate Change & Environment Division in the working group E identifies and implements climate change response activities and relevant tasks while reporting the pursuance plans and activity outcomes to the ESG Committee under the BOD.

Carbon Neutrality Roadmap / Committee and GHG Reduction Goals

In 2021, EWP established the **"EWP 2050 Carbon Neutrality Roadmap"** in connection with national policies and the power plant business characteristics according to the strengthened 2030 NDC (Nationally Determined Contributions) and 2050 Carbon Neutral Scenario.

"EWP 2050 Carbon Neutrality Roadmap" was announced when the Company held its first **"EWP Carbon Neutrality Committee"**, a review board to successfully fulfill carbon neutrality by 2050. The Committee's Chairman is EWP's CEO, and members consists of key personal from the Company, as well as external advisory panel which is comprised of experts in the relevant fields. Key targets of the "EWP 2050 Carbon Neutrality Roadmap" is as following:

Target Year	Emission Reduction vs 2018 (Scope 1 & 2)	Energy Mix (Renewable Energy %)	Energy Capacity (Renewable Energy %)
2030	44.4%	41.9%	26.0%
2050	100.0%	78.3%	71.0%

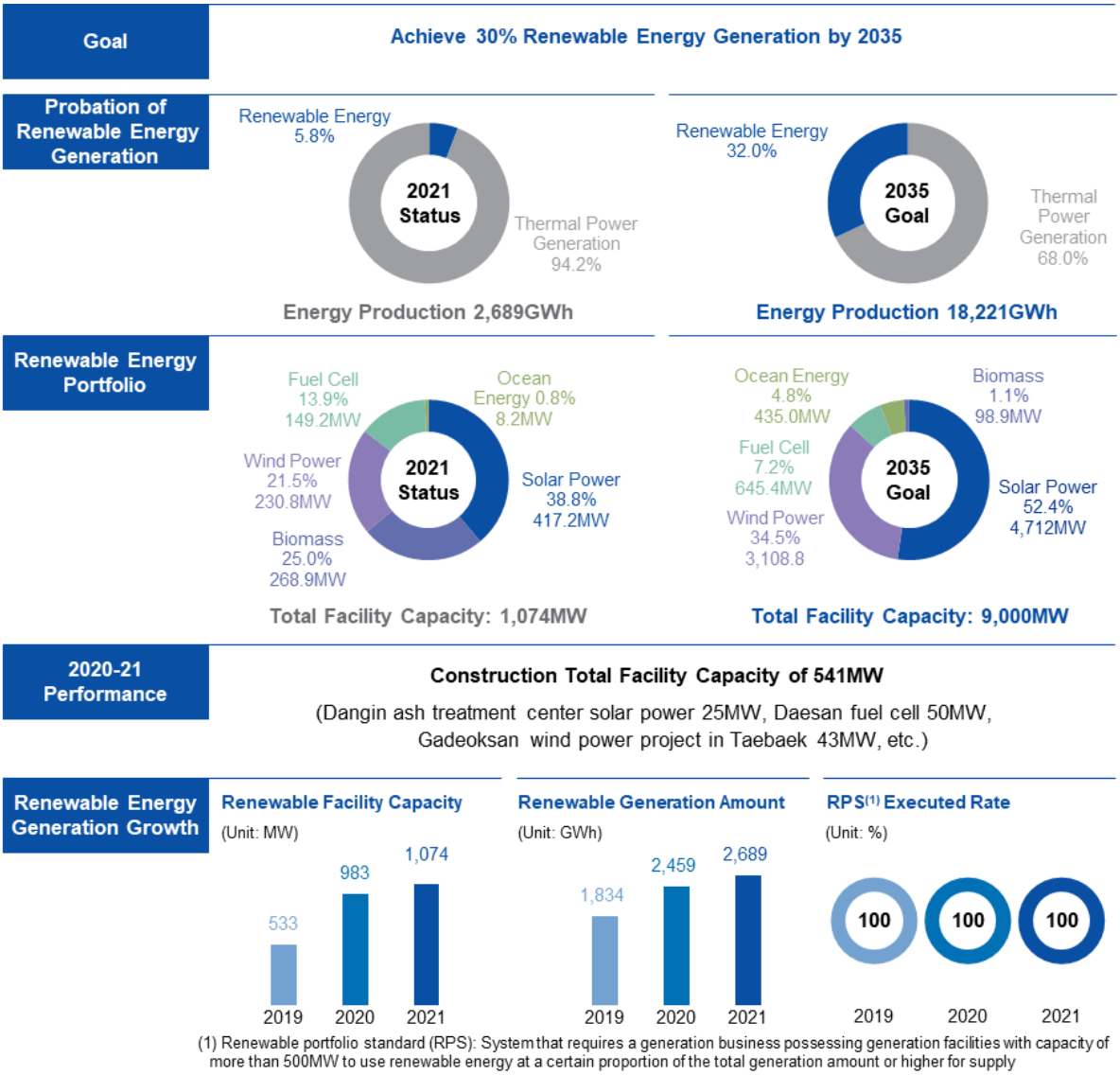
In addition, EWP has set a target to reduce scope 1 & 2 GHG emissions by 50% by 2035 (compared to 2018) when re-establishing mid-to long-term management strategy. Key means to reduce GHG emissions include:

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

1.4 Transition into Renewable Energy

EWP will pursue prompt energy transition by increasing renewable energy, strengthening new energy businesses, and expanding the hydrogen fuel cell generation business. Furthermore, the Company will continue to procure eco-friendly technologies by focusing investments on the carbon capture, utilization, and storage (CCUS) business and technological development, procurement of new renewable energy technologies, production of hydrogen, and development of mixed fuel technologies.

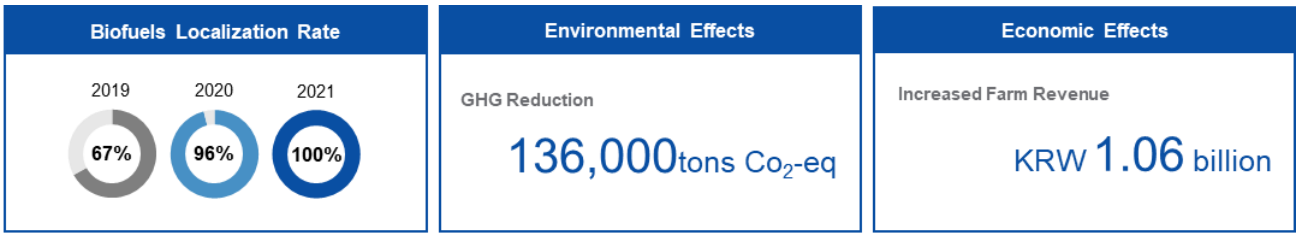
In order to respond preemptively to the energy paradigm shift, EWP is adjusting its generation portfolio with the goal of **achieving 30% renewable energy generation with facility capacities of 9,000MW by 2035**. Furthermore, we plan to close coal-fired power plants 1 to 4 at the Dangjin Power Complex and switch to LNG generation by 2029~2030, securing its generation portfolio by comprehensively considering business feasibility in terms of environment, economics, and technologies as well as stability of power supply.



note: renewable energy generation & portfolio includes total generation and capacity of invested domestic assets

Development of Biofuel

EWP converts organic waste resources into biofuel to produce electricity as part of its efforts to circulate resources. As most wood pellets (biofuel), major types of fuel for bioenergy generation, are imported, EWP reduces the number of imports by converting organic wastes generated in Korea into biofuel while producing eco-friendly energy. The Company developed wood pellets and organic solid fuels, and they are actively being used. EWP developed unused biomass (mushroom medium[1]), fruit tree trimming, etc.) as fuel with the goal of achieving 100% localization of biofuels. Through this, EWP expects that producing eco-friendly energy will be possible while increasing revenue for the farms as well in Korea.



Development of Eco-Friendly Technology

EWP strives to procure next-generation future core technologies by developing new eco-friendly technologies. The Institute of Future Conversion Technologies, which consists of Renewable Energy R&D Department and New Energy Business R&D Department, oversees research and development and engages in R&D by cooperating with industry, university and research institutes. EWP is securing technological competitiveness by localizing core generation facilities and are establishing a stable facility operation platform.

Development of Hydrogen

EWP pursues the Hydrogen Star project, developing life-cycle platform technologies encompassing hydrogen production, distribution, storage and consumption. For the project, EWP has selected 5 areas based on each regional characteristic, and plans to diversify business for each region going forward.

For example, EWP plans to establish and operate solar-hydrogen convergence complexes in Gangwon-do area of Korea to procure and produce green hydrogen platform technologies. This Power-to-Gas project, involving 16 institutions including KEPCO Research Institute and EWP, is expected to be finalized by 2024. Currently solar panel and grids are established, and through these facility green hydrogen will be produced, ultimately resulting in Korea's first renewable energy source-linked green hydrogen production facility.

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

1.5 EWP's New Energy Business

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

New Energy Business includes the following:

- Supply project for roof-top photovoltaic power facilities in industrial complex
- Small-scale power brokerage: managing small-scale under 1MW renewable energy resources such as private solar panels and small hydropower nationwide, while brokering small-scale power market trading and providing real-time facility monitoring
- Energy efficiency business: analyzing the electric usage patterns to provide optimal efficiency solutions for public institutions and campuses
- Virtual Power Plant (VPP) project with locals: receiving rooftop sites from locals and cooperatives to distribute solar panels while using information and communication technologies for integrated management as a single power plant.
- ESS Management Service Provider (MSP): energy cost reduction business model developed for the first time in Korea by EWP

2. Korea East-West Power Co. Green and Sustainability Bond Framework

The aim of this Green and Sustainability Bond Framework is to facilitate transparency, disclosure, integrity and quality in EWP's Green and Sustainability Bonds for interested investors and stakeholders.

This Green and Sustainability Bond Framework has been updated based on EWP's Sustainability Bond Framework dated June 2018, reflecting EWP's latest climate change and energy transition strategy and aligning with the latest international standards and practices in the Green and Sustainability bond market. In addition to Sustainability Bond, the updated Framework also allows EWP to issue Green Bond where the proceeds would be exclusively used for Eligible Green Projects. This Framework will be applicable to the EWP's Green and Sustainability Bond issuances launched on or after the date of this Framework.

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

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

Korea East-West Power Co. Green and Sustainability Bond Framework ("Framework") has been developed to address the four key pillars of the Green Bond Principles ("GBP") and the Sustainability Bond Guidelines ("SBG"):

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

2.1 Use of Proceeds

The net proceeds of EWP Green and Sustainability Bonds will be used to finance and/or refinance, in whole or in part, new or existing projects ("Eligible Projects") as defined below.

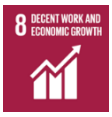
Eligible Green Projects

Eligible Project Categories	Use of Proceeds	UNSDG[2] Mapping
Renewable Energy	• Research, development, acquisition, construction, installation, maintenance and upgrade of renewable energy generation facilities, equipment or infrastructure from ○ Solar ○ Wind ○ Tidal and wave power ○ Biomass (life-cycle GHG emission intensity below 100g CO2e/kWh and using sustainable feedstock[3]) ○ Geothermal (life-cycle GHG emission intensity below 100g CO2e/kWh) ○ Run-of-river hydropower (do not have an artificial reservoir) or hydropower (life-cycle GHG emission intensity below 100gCO2e/kWh or power density of the electricity generation facility above 5 W/m2)	 UNSDG 7.2
Energy Efficiency	• Acquisition, installation, maintenance and upgrade of the energy efficient equipment or facilities in the office building/ university campus or renewable energy generation facilities. Such project shall achieve at least 20% improvement in the energy efficiency • Research, development, acquisition, construction, maintenance and upgrade of facilities, equipment or system dedicated for energy storage	 UNSDG 7.3

Eligible Social Projects

Eligible Project Categories	Use of Proceeds	UNSDG Mapping
Small-Medium Enterprise (SME) Support	• Projects supporting SME[4] s to promote employment and energy efficiency. Examples include: ○ Energy consulting and R&D support including customized technology and energy management education support ○ Support for high-efficiency equipment such as solar power	 UNSDG 8.3

[2] United Nations Sustainable Development Goals
[3] 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.
[4] SME defined as: Per Article 2 of the Enforcement Decree of the Framework Act on Small and Medium Enterprises (http://law.go.kr/LSW/eng/engMain.do)

Socio Economic Advancement and Empowerment	• Projects support the development of communities and people living under poverty, and rural communities (agriculture and fishery)[5] as defined under Korean Government's 'Agricultural-Fishery Win-Win Cooperative Fund'. Example including to support the development of solar panel facility in Ulju-gun	 UNSDG 8.2
Access to Essential Services	• "Happy Energy Voucher" program, which resolves energy poverty in the community by supporting lower-income classes[6], families in need of emergency aid and disabled people in Ulsan	 UNSDG 1.4

Net proceeds from EWP Green or Sustainability Bonds will not be allocated to the following projects and/or activities:

- Nuclear energy
- Fossil-fuel based electricity production
- SME with main business fall into IFC Exclusion List[7]

2.2 Project Evaluation and Selection Process

The Process for Project Evaluation and Selection ensures that the net proceeds of the Green and Sustainability Bond 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 EWP's criteria indicated above. Only projects that meet one of the eligibility criteria may benefit from the Green and Sustainability Bond financing.

To ensure that allocations are made to Eligible Projects as specified above, EWP has established a Sustainable Finance Working Group ("SFWG") to oversee the selection of Eligible Projects and their compliance with the eligibility criteria described in the Framework. The SFWG will meet on an annual basis and when required.

The SFWG is comprised by representatives from the following departments:

- Planning Division (incl. Planning Department, Financial Management Department and Risk Management Department)
- Energy Transition Division
- Renewable Energy Division
- Global Business Division
- Carbon Neutral Division
- Other relevant departments or teams

[5] Pursuant to the Korean Government's project 'Agricultural-Fishery Win-Win Cooperative Fund', EWP has been contributing KRW 2.5bn annually to vitalize agricultural and fishery economy in South Korea.
[6] Lower-income classes defined as: individuals/ persons who belong to 1) second-lowest income bracket, defined by National Basic Living Security Act Article 7 (3), 2) families in need of emergency aid and 3) disabled people
[7] https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/company-resources/ifcexclusionlist

The role of the SFWG will be:

- Reviewing and validating the existing pool of Eligible Projects
- 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
- Verifying and validating annual reporting for Green and Sustainability Bond

The SFWG, which includes experts possessing ESG experience and knowledge, will also have veto power to the final decision on the final Eligible Project selection. The assets vetoed by the Working Group shall be excluded from the Eligible Project List.

2.3 Management of Proceeds

The net proceeds of each Green and Sustainability Bond will be deposited in EWP's Treasury Portfolio. An amount equivalent to the net proceeds shall be allocated for the financing and / or refinancing of existing or new Eligible Projects. EWP's treasury team will track internally, with the use of a register in Excel Spreadsheet format to make sure that proceeds raised from the Green and Sustainability Bonds 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 Green and Sustainability Bonds to Eligible Projects
- The balance of unallocated proceeds
- Information of temporary investment for unallocated proceeds (if applicable)
- Other relevant information

For refinancing, the Green and Sustainability Bond could be used for Eligible Projects completed in the three full years prior to the Green and Sustainability Bond issuance year.

Any balance of the net proceeds from Green and Sustainability Bonds that have not been allocated to Eligible Projects will be held in accordance with EWP's normal liquidity management policy. The unallocated net proceeds may be used for the payment of all or a portion of outstanding indebtedness, and/ or may be temporarily invested in cash, cash equivalents, and short-term money market instruments.

2.4 Reporting

The reporting will include allocation reporting and impact reporting and will be publicly available on EWP website.

Allocation report

The allocation reporting will be available to investors within approximately one year from the date of the bond issuance and yearly thereafter until the bond proceeds have been fully allocated. It will be available on EWP website.

- Allocation per Eligible Asset Category
- Example of projects financed by the proceeds, including their description (date, location, category, progress) and the corresponding allocated amount (in US$)
- Allocated amount vs. total amount (in %)

- Portion of financing and refinancing

Impact report

On an annual basis, until full allocation, EWP will provide an impact reporting, whereby, for each category of Eligible Projects, and where feasible, EWP will report on relevant impact calculation methodology and assumption.

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

Eligible Green Projects

Eligible Project Categories	Potential Reporting Indicators
Renewable Energy	• Installed capacity in MW • Annual GHG emissions avoided in tons of CO2 equivalent • Annual renewable energy production in MWh
Energy Efficiency	• % of energy efficiency improved post-project • Annual energy consumption reduced in MWh • Energy storage capacity in MW

Eligible Social Projects

Eligible Project Categories	Potential Reporting Indicators
Small-Medium Enterprise (SME) Support	• Number of SMEs financed / supported • Number of jobs created / maintained • Number of beneficiaries
Socio Economic Advancement and Empowerment	• Number of beneficiaries supported • Number and types of essential facilities constructed
Access to Essential Services	• Number of beneficiaries supported • Type of programs supported

2.5 External Review

DNV was appointed as an independent third party to provide a second party opinion (the "SPO") on EWP's Green and Sustainability Bond Framework and its alignment with the Green Bond Principles and Sustainability Bond Guidelines. The SPO will be made available on EWP website.