Korea Water Resources Corporation

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Introduction

In April 2022, Korea Water Resources Corporation ("K-water" or the "Company") issued a green bond (the "2022 Green Bond"), based on the K-water Green Financing Framework (the "Framework") [1], to finance and refinance projects related to Renewable Energy, Sustainable Wastewater Management and Sustainable Water Management in South Korea. In 2023, K-water engaged Sustainalytics to review the projects financed with proceeds from the 2022 Green Bond and provide an assessment as to whether the projects met the use of proceeds criteria and the reporting commitments outlined in the Framework. Sustainalytics provided a second-party opinion on the Framework in March 2022.[2]

Evaluation Criteria

Sustainalytics evaluated the projects funded with proceeds from the 2022 Green Bond based on whether they:

1. Met the use of proceeds and eligibility criteria outlined in the Framework; and
2. Reported on at least one key performance indicator (KPI) for each use of proceeds category of the Framework.

Table 1: Use of Proceeds Categories, Eligibility Criteria and Associated KPIs[3]

Use of Proceeds Category	Eligibility Criteria	Key Performance Indicators
Renewable Energy	• Acquisition, construction, development, deployment, operation, maintenance and upgrade of infrastructure related to renewable energy including: – Solar energy (e.g. Floating photovoltaic power facilities) – Tidal energy (e.g. Tidal power generation facilities or dedicated transmission infrastructure and support facilities) – Hydropower (e.g. Small hydro plants and facilities such as dams, with a power density > 10 W/m^2 or life cycle GHG emissions threshold < 100gCO_2e/kWh) – Hydrothermal energy (e.g. Hydrothermal energy convergence cluster)	• Installed capacity in MW • Annual GHG emissions avoided in tons of CO_2e • Annual renewable energy production in MWh

[1] Korea Water Resources Corporation, "K-water Green Financing Framework", (2022), at: https://www.kwater.or.kr/web/eng/bond/K-water%20Green%20Financing%20Framework%2028Mar22_vf.pdf
[2] Korea Water Resources Corporation, "K-water Green Financing Framework Second Party Opinion", (2022), at: https://www.kwater.or.kr/web/eng/bond/K-water%20SPO_Sustainalytics%2031Mar22_vf.pdf
[3] The Framework defines four categories of green use of proceeds and the Company has allocated proceeds from the current issuance to three green categories.

	– Green Hydrogen	
Sustainable Wastewater Management	• Construction, development, operation, maintenance and upgrade of wastewater treatment facilities or pumping stations, subject to the relevant net energy consumption levels[4] for new plants • Renovation or upgrade work for wastewater treatment facilities achieving an expected 20% reduction in energy consumption	• Amount of wastewater treated in m^3 • Number of people and cities served • Improvement of wastewater quality
Sustainable Water Management	• Construction, development, operation, maintenance, renovation and upgrade of water supply infrastructure to increase efficiency, accessibility and management of water delivery systems subject to the following criteria: – Net average energy consumption for abstraction and treatment ≤ 0.5 kWh per cubic meter produced water supply; or Leakage level: Infrastructure Leakage Index (ILI) ≤ 1.5 Examples: ▪ Construction of water purification plant and pumping station to adjust or redistribute water supply; ▪ Renewal or replacement of old water facilities such as water transmission pipelines to reduce leakage; ▪ Upgrade of water infrastructure to improve water flow rate by replacing dysfunctional measuring apparatus, or establishing automation systems	• Avoided water leakage in m^3 • Number of people and cities served

Issuer's Responsibility

K-water is responsible for providing accurate information and documentation relating to the details of the funded projects, including description of projects, amounts allocated and project impact.

Independence and Quality Control

Sustainalytics, a leading provider of ESG research and ratings, conducted the verification of the use of proceeds from K-Water's 2022 Green Bond. The work undertaken as part of this engagement included collection of documentation from K-water and review of said documentation to assess conformance with the K-water Green Financing Framework.

Sustainalytics relied on the information and the facts presented by K-water. Sustainalytics is not responsible nor shall it be held liable for any inaccuracies in the opinions, findings or conclusions herein due to incorrect or incomplete data provided by K-water.

Sustainalytics made all efforts to ensure the highest quality and rigor during its assessment process and enlisted its Sustainability Bonds Review Committee to provide oversight of the review.

[4] ≤ 35 kWh per population equivalent (p.e.) per annum for treatment plant capacity below 10 000 p.e.
≤ 25 kWh per p.e. per annum for treatment plant capacity between 10 000 and 100 000 p.e.
≤ 20 kWh per p.e. per annum for treatment plant capacity above 100 000 p.e.

Conclusion

Based on the limited assurance procedures conducted,[5] nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the reviewed projects do not conform with the use of proceeds criteria and reporting commitments in the K-water Green Financing Framework. K-water has disclosed to Sustainalytics that the proceeds of the 2022 Green Bond were fully allocated as at June 2023.

Detailed Findings

Table 2: Detailed Findings

Framework Requirements	Procedure Performed	Factual Findings	Error or Exceptions Identified
Use of Proceeds Criteria	Verification of the projects funded with proceeds from the 2022 Green Bond to determine if projects aligned with the use of proceeds criteria outlined in the Framework.	All projects reviewed complied with the use of proceeds criteria.	None
Reporting Criteria	Verification of the projects funded with proceeds from the 2022 Green Bond to determine if impact of projects was reported in line with the KPIs outlined in the Framework.	All projects reviewed reported on at least one KPI per use of proceeds category.	None

[5] Sustainalytics limited assurance process includes reviewing the documentation relating to the details of the funded projects, including description of projects, their estimated and realized costs and impact, as provided by the issuing entity, which is responsible for providing accurate information. Sustainalytics has not conducted on-site visits to projects.

Appendices

Appendix 1: Allocation Reporting by Use of Proceeds Category

In April 2022, K-water raised a total of USD 350 million through the issuance of 2022 Green Bond, of which 48.4% of the proceeds were allocated towards financing eligible projects while the remaining 51.6% of the proceeds were used towards refinancing.

Use of Proceeds Category	Project Description	Net Proceeds Allocation (USD million)[6]
Renewable Energy	Development of Gunwi Dam Floating Solar Power Plant	3.43
	Development of Soyang River Hydropower Plant	1.17
	Improvement and Maintenance of Sihwa Tidal Power Plant	4.28
	Development of Onshore Solar Power Plant	6.27
	Development of Chungju Dam Floating Solar Power Plant	3.06
	Construction of Chungju Jojungji Hydropower Plant	2.11
Sustainable Water Management	Establishment of Water Supply Ecosystem at Han River Downstream Areas IV	14.34
	Establishment of Water Supply Ecosystem at Geumgang River	3.18
	Maintenance of Wide-area Waterworks to Secure Water Supply	289.45
Sustainable Wastewater Management	Construction and Maintenance of Wastewater Treatment Facilities	22.71
Total Proceeds Allocated		350
Total Proceeds Raised		350
Total Unallocated Amount		0

[6] Currency exchange rate used : USD = 1312.8 KRW as of 30 Jun 2023

Appendix 2: Impact Reporting by Use of Proceeds Category

Eligible Green Project Categories	Sub-Category	Impact Indicators
Renewable Energy	Solar	• Installed capacity: 20MW • Annual power generation: 26,280 MWh/ year • Reduction of GHG emission: 12,430 tons of CO_2e/ year
	Hydro	• Installed capacity: 5.68MW • Annual power generation: 15,610 MWh/ year • Reduction of GHG emission: 7,384 tons of CO_2e/ year
	Tidal	• Annual power generation: 3,961 MWh/ year • Reduction of GHG emission: 1,874 tons of CO_2e/ year
Sustainable Water Management	Water Supply System	• Avoided water leakage: 564,130m^3 per day • Number of people and cities served: 1,867,980 people
Sustainable Wastewater Management	Wastewater System	• Amount of wastewater treated: 1,470 m^3 per day • Number of people and cities served: 9,655 people

Disclaimer

About Sustainalytics, a Morningstar Company

Sustainalytics, a Morningstar Company, is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. For more than 30 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Sustainalytics works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. Sustainalytics also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices and capital projects. With 17 offices globally, Sustainalytics has more than 1500 staff members, including more than 500 analysts with varied multidisciplinary expertise across more than 40 industry groups.

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