



# KOREA WESTERN POWER (KOWEPO) GREEN BOND REPORT PERIODIC REVIEW



**Document title:** Periodic Review on KOWEPO Green Bond Report

**Prepared by:** DNV Business Assurance Korea Ltd.

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This statement is valid until the KOWEPO Green Bond Report provided in December 2023 remains unchanged.

## Table of Contents

Table of Contents .....	2
DNV PERIODIC REVIEW OPINION .....	3
Scope and Objectives .....	3
Responsibilities of the Management of KOWEPO and DNV .....	3
Basis of DNV's opinion.....	4
Work Undertaken .....	4
Findings and DNV's Opinion .....	4
Schedule 1. Nominaed assets financed or refinanced through Green Bond .....	6
Schedule 2. Impact Reporting .....	8
Schedule 3. KOWEPO -specific Eligibility Assessment Protocol .....	9
1. Use of Proceeds .....	9
2. Process for Project Selection and Evaluation .....	12
3. Management of Proceeds .....	13
4. Reporting .....	14

### Disclaimer

Our assessment relies on the premise that the data and information provided by the client to us as part of our review procedures have been provided in good faith. Because of the selected nature (sampling) and other inherent limitation of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied as per scope of work. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Statement.

### Statement of Competence and Independence

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2015 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV Code of Conduct<sup>1</sup> during the assessment and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV was not involved in the preparation of statements or data included in the Framework except for this Statement. DNV maintains complete impartiality toward stakeholders interviewed during the assessment process.

<sup>1</sup> DNV Code of Conduct is available from DNV website ([www.dnv.com](http://www.dnv.com))

## DNV PERIODIC REVIEW OPINION

### Scope and Objectives

Korea Western Power (“KOWEPO” or the “Issuer”) issued a green bond (“BOND”) under the Green and Sustainability Financing Framework (the “Framework”) which was made by KOWEPO in 2022 with DNV’s Second Party Opinion. The total amount of the proceeds of the BOND is USD 300 million. Details of the BOND are as follows;

Issuer	Korea Western Power Co., Ltd
Issuer rating	Aa2 (Moody’s) / AA (S&P) / --
Instrument	Senior Unsecured Green Bond
Use of Proceeds	Under KOWEPO’s Green, Social and Sustainability Financing Framework
ISIN	XS2489897343
Pricing date	21 June 2022
Size	USD 300 million
Format	Public Offering, RegS Only
Maturity	28 June 2025

DNV has been commissioned by KOWEPO to provide a periodic review on the BOND, by assessing whether the projects funded by the net proceeds of the BOND and the associated Reporting are in alignment with the criteria set forth in the Framework. Our methodology to achieve this is described under ‘Work Undertaken’ below.

In this report, no assurance is provided regarding the financial performance of the BOND, the value of any investments in the BOND, or the long-term environmental benefits of the transaction. Our main objective has been to provide an assessment that the BOND have met the criteria established on the basis set out below.

### Responsibilities of the Management of KOWEPO and DNV

The management of KOWEPO has provided the information and data used by DNV during the delivery of this review. Our statement represents an independent opinion and is intended to inform KOWEPO management and other interested stakeholders in the BOND as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by KOWEPO. DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by KOWEPO used as a basis for this assessment were not correct or complete.

### Basis of DNV’s opinion

- **Principle One: Use of Proceeds.** The Use of Proceeds criteria are guided by the requirement that an issuer of the BOND must use the funds raised to finance (or refinance) eligible activities. The eligible activities should produce clear environmental benefits.
- **Principle Two: Process for Project Evaluation and Selection.** The Project Evaluation and Selection criteria are guided by the requirements that an issuer of the BOND should outline the process it follows when

determining eligibility of an investment using the BOND proceeds, and outline any impact objectives it will consider.

- **Principle Three: Management of Proceeds.** The Management of Proceeds criteria are guided by the requirements that the BOND should be tracked within the issuing organization, that separate portfolios should be created when necessary and that a declaration of how unallocated funds will be handled should be made.
- **Principle Four: Reporting.** The Reporting criteria are guided by the recommendation that at least Sustainability Reporting to the bond investors should be made of the use of the BOND proceeds and that quantitative and/or qualitative performance indicators should be used, where feasible.

## Work Undertaken

Our work constituted a high-level review of the available information, based on the understanding that this information was provided to us by KOWEPO in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion include:

- Creation of a KOWEPO-specific Eligibility Assessment Protocol, adapted to the purpose of the BOND, as described above and in Schedule 3 to this assessment;
- Assessment of documentary evidence provided by KOWEPO on the BOND and supplemented by a high-level desktop research. These checks refer to current assessment best practices and standards methodology;
- Assessment of KOWEPO Sustainable Finance Allocation & Impact Report 2023 with a review on the nature, appropriateness, and where required, accuracy of the data used for Allocation and Impact Reporting;
- Review of relevant information disclosed on KOWEPO website, and other documentations and evidence related to the criteria of the Protocol; and
- Documentation of findings against each element of the criteria. Our opinion as detailed below is a summary of these findings.

## Findings and DNV's Opinion

DNV's findings are listed below:

1. **Principle One: Use of Proceeds.** KOWEPO has reported use of the proceeds of the BOND to finance and refinance projects and assets including:
  - *Renewable Energy*
  - *Energy Efficiency*DNV reviewed the criteria for the project categories above to determine the eligibility of the nominated projects and assets.
2. **Principle Two: Process for Project Evaluation and Selection.** The proceeds of the BOND have been allocated to finance and refinance the assets as defined in Schedule 1. DNV has reviewed evidence that demonstrates that KOWEPO follows the project evaluation and selection described in the Framework, regularly assesses opportunities for improvement, and devises action plans and initiatives to mitigate negative environmental and social impacts from its operations.
3. **Principle Three: Management of Proceeds.** DNV has reviewed evidence showing how KOWEPO traced the proceeds from the Bonds, from the time of issuance to the time of disbursement. The proceeds were deposited

in KOWEPO's general account and an amount equal to the net proceeds was earmarked for allocation to the Eligible Projects as selected by Sustainability Working Group (SWG). The Budget and Financing Office also tracked internally, with the use of a register to make sure that proceeds raised from the Sustainable Financing Instruments were allocated to Eligible Projects.

- 4. Principle Four: Reporting.** KOWEPO has confirmed that it will include and maintain a dedicated section on the BOND in its website. This includes a description of the project and value of the proceeds invested, as well as the associated qualitative and quantitative environmental impacts.

On the basis of the information provided by KOWEPO and the work undertaken, it is DNV's opinion that the BOND meets the criteria established in the Protocol and the Framework, and that the BOND is aligned with the stated definition of green bonds within the Green Bond Principles which is to "enable capital-raising and investment for new and existing projects with environmental benefits"

for DNV Business Assurance Korea Ltd.

Seoul, Republic of Korea / 12 December 2023



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**Chang Rok Yun**

Senior Auditor

**Project Team**

DNV Business Assurance Korea



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**Sang Rye Chang**

Senior Auditor

**Technical Reviewer**

DNV Business Assurance Korea

## SCHEDULE 1: NOMINATED ASSETS FINANCED OR REFINANCED THROUGH GREEN BOND

**Total Allocation:** The amount of USD 230,521.1 k was allocated (77% out of total proceeds of USD 300 million)<sup>2</sup>

(unit: USD k<sup>3</sup>)

Category	Projects	Jul 2019 ~ Jun 2022 (Refinancing)	Jun 2022 ~ 23 YTD	Total	% out of USD 300 million of proceeds
Renewable Energy	Solar Power	81,750.8	21,686.6	103,437.4	35%
	Wind Power	115,455.3	8,735.0	124,190.4	41%
	Sum	197,206.1	30,421.6	227,627.8	76%
Energy Efficiency	ESS	2,893.3	N/A	2,893.3	1%
	Sum	2,893.3	N/A	2,893.3	1%
Total		200,099.4	30,421.7	230,521.1	77%

<sup>2</sup> Refinancing share: 86.8% (1Jul 2019 - 20 June 2022 / 21 June 2022 - 2023 YTD)

<sup>3</sup> USD 1 is equal to KRW 1,293.65 (as of 21st June 2022, Bloomberg)

## SCHEDULE 2: IMPACT REPORTING

### Renewable Energy (Solar and Wind Power)

- Total Exp. Energy Produced (Renewable Energy): 741,245.8 MWh/year
- Total Exp. CO2 Avoided (Renewable Energy): 310,563.1 tCO2/year

Project Description	Installed Capacity (MW)	Exp. Energy Produced (MWh/year)	Exp. CO2 Avoided (tCO2/year)
Solar Power	468.9	610,505.7	289,230.8
Wind Power	130.2	130,740.1	21,332.3
<b>Total</b>	<b>599.1</b>	<b>741,245.8</b>	<b>310,563.1</b>

### Energy Storage System (ESS)<sup>4</sup>

- Total Installed ESS Capacity : 28.5 MWh
- % of Energy Efficiency Improved: (7.6% and 3.5% - respectively)

Project Description	Capacity (MW)	Energy Efficiency Improved (%) <sup>5</sup>
ESS 1	19.5	7.6%
ESS 2	9.0	3.5%
<b>Energy Efficiency Impact (Total)</b>	<b>28.5</b>	<b>--</b>

<sup>4</sup> ESS is incorporated into solar photovoltaic system.

<sup>5</sup> Energy efficiency = additionally generation capacity by ESS / PV applied generation capacity

## SCHEDULE 3: GREEN BOND ELIGIBILITY ASSESSMENT PROTOCOL

### 1. Use of Proceeds

Ref.	Criteria	Requirements	Works Undertaken	DNV Findings								
1a	Type of bond / loan	<p>The Bond and Loan must fall in one of the following categories, as defined by the Green/Social Bond Principles:</p> <ul style="list-style-type: none"><li>Green/Social Use of Proceeds Bond</li><li>Green/Social Use of Proceeds Revenue Bond</li><li>Green/Social Project Bond</li><li>Green/Social Securitized Bond</li><li>Loan instrument made available for Green and Social project (Green and Social use of loan proceeds)</li></ul>	<p>Review of:</p> <ul style="list-style-type: none"><li>KOWEPO Green and Sustainability Financing Framework (2022)</li><li>KOWEPO Green Bond Report(2023)</li></ul> <p>Discussion with KOWEPO management (or a KOWEPO-delegated entity)</p>	<p>The reviewed evidence confirms that the BOND falls in the category of the Green Use of Proceeds.</p> <ul style="list-style-type: none"><li>On 21 June 2022, KOWEPO issued USD 300 million green bond with a tenor of 3 years.</li></ul>								
1b	Sustainable Project Categories	<p>The cornerstones of Sustainability Bond and Loan are the utilization of the proceeds of the bond and the loan which should be appropriately described in the legal documentation for the security.</p>	<p>Review of:</p> <ul style="list-style-type: none"><li>KOWEPO Green and Sustainability Financing Framework (2022)</li><li>KOWEPO Green Bond Report(2023)</li><li>Documentation of project details including location, size, allocated amount and environmental impacts.</li></ul> <p>Discussion with KOWEPO management (or a KOWEPO-delegated entity)</p>	<p>According to KOWEPO’s Framework, KOWEPO aims to use the proceeds for promoting the use of renewable energy and increasing energy efficiency. The reviewed evidence shows that the proceeds were used for the following projects:</p> <table><tr><th>Type</th><th>Location</th></tr><tr><td>Solar Power</td><td>Korea, Australia, Oman, Laos, &amp; UAE (29 in total)</td></tr><tr><td>Wind Power</td><td>Korea, Finland, &amp;Sweden (9 places in total)</td></tr><tr><td>Energy Efficiency</td><td>Korea (2 in total - Energy Storage System)</td></tr></table>	Type	Location	Solar Power	Korea, Australia, Oman, Laos, & UAE (29 in total)	Wind Power	Korea, Finland, &Sweden (9 places in total)	Energy Efficiency	Korea (2 in total - Energy Storage System)
Type	Location											
Solar Power	Korea, Australia, Oman, Laos, & UAE (29 in total)											
Wind Power	Korea, Finland, &Sweden (9 places in total)											
Energy Efficiency	Korea (2 in total - Energy Storage System)											



Ref.	Criteria	Requirements	Works Undertaken	DNV Findings
1c	Environmental benefits	All designated Green Project categories should provide clear environmentally sustainable benefits, which, where feasible, will be quantified or assessed by the Issuer.	<p>Review of:</p> <ul style="list-style-type: none"> <li>KOWEPO Green and Sustainability Financing Framework (2022)</li> <li>KOWEPO Green Bond Report(2023)</li> <li>Documentation of project details including location, size, allocated amount of proceeds and environmental impacts.</li> </ul> <p>Discussion with KOWEPO management (or a KOWEPO-delegated entity)</p>	<p>DNV reviewed raw data provided by KOWEPO to verify environmental impact of the invested projects and its accuracy of calculation.</p> <ul style="list-style-type: none"> <li><b>Renewable Energy:</b> KOWEPO invested renewable energy such as solar and wind power. In accordance with the European Investment Bank (EIB) guidelines,<sup>6</sup> the GHG emissions avoided have been calculated as the product of the energy production in MWh by the country specific baseline for the carbon intensity of the national grid for intermittent electricity generation. The raw data and calculation methodology were checked by DNV and nothing incorrect was found in it.</li> <li><b>Energy Efficiency:</b> KOWEPO invested Energy Storage System. Improved energy efficiency was calculated, dividing additional power generation with ESS by power generation without ESS (PV only). The raw data and calculation methodology were checked by DNV and nothing incorrect was found on it.</li> </ul> <p>Considering the above-mentioned effects, DNV views that KOWEPO's projects have brought positive environmental impacts.</p>
1d	Refinancing Share	In the event that a proportion of the proceeds may be used for refinancing, it is recommended that issuers provide an estimate of the share of financing vs. re-financing, and where appropriate, also clarify which investments or project portfolios may be refinanced.	<p>Review of:</p> <ul style="list-style-type: none"> <li>KOWEPO Green Bond Report(2023)</li> <li>KOWEPO Green and Sustainability Financing Framework (2022)</li> </ul> <p>Discussion with KOWEPO management (or a KOWEPO-delegated entity)</p>	<p>3-year of look back period which was described in the Framework was appropriately observed in the proceeds allocation. Refinancing share is 86.8%.</p>

<sup>6</sup> [https://www.eib.org/attachments/lucalli/eib\\_project\\_carbon\\_footprint\\_methodologies\\_2023\\_en.pdf](https://www.eib.org/attachments/lucalli/eib_project_carbon_footprint_methodologies_2023_en.pdf)

## 2. Process for Project Selection and Evaluation

Ref.	Criteria	Requirements	Works Undertaken	DNV Findings
2a	Investment-decision process	<p>The Issuer of a Sustainability Bond and Loan should outline the decision-making process it follows to determine the eligibility of projects using Sustainability Bond and Loan proceeds. This includes, without limitation:</p> <ul style="list-style-type: none"> <li>A process to determine how the projects fit within the eligible Green and Social Projects categories identified in the Green/Social Bond Principles and Green/Social Loan Principles;</li> <li>The criteria making the projects eligible for using the Sustainability Bond proceeds; and</li> <li>The environmental sustainability objectives, and the social objectives</li> </ul>	<p>Review of:</p> <ul style="list-style-type: none"> <li>KOWEPO Green Bond Report(2023)</li> <li>KOWEPO Green and Sustainability Financing Framework (2022)</li> </ul> <p>Discussion with KOWEPO management (or a KOWEPO-delegated entity)</p>	<p>KOWEPO has confirmed to DNV that the project evaluation and selection process has been conducted in accordance with the Framework.</p> <p>KOWEPO has established a Sustainable Working Group ("SWG") to ensure that Eligible Projects or Assets are reviewed and selected in accordance with the Framework.</p>
2b	Issuer/borrower's environmental and social and governance framework	<p>In addition to information disclosed by an issuer on its Sustainability Bond process, criteria and assurances, Sustainability Bond and Loan investors may also take into consideration <b><u>the quality of the issuer's overall framework and performance regarding environmental sustainability.</u></b></p>	<p>Review of:</p> <ul style="list-style-type: none"> <li>KOWEPO Website</li> <li>KOWEPO Sustainability Report (2023)</li> <li>KOWEPO Green Bond Report(2023)</li> <li>KOWEPO Green and Sustainability Financing Framework (2022)</li> </ul> <p>Discussions with delegated staff at KOWEPO.</p>	<p>KOWEPO's website describes its sustainability efforts in the field of environment, society, and governance, particularly through the website in Korean.</p> <p>Korean: <a href="https://www.iwest.co.kr/sites/iwest/index.do">https://www.iwest.co.kr/sites/iwest/index.do</a></p> <p>English: <a href="https://www.iwest.co.kr/eng/841/subview.do">https://www.iwest.co.kr/eng/841/subview.do</a></p> <p>Its annually published Sustainability Report also includes various performance indicators in relation to environmental and social impacts which have been monitored and tracked periodically.</p> <p>Furthermore, the Framework underscores its effort for sustainable development by describing its ISO 14001 based environmental management and ISO 45001 based occupational safety and health management.</p>

### 3. Management of Proceeds

Ref.	Criteria	Requirements	Works Undertaken	DNV Findings
<b>3a</b>	Tracking procedure	The net proceeds of Sustainability Bonds should be credited to a sub-account, moved to a sub- portfolio or otherwise tracked by the Issuer in an appropriate manner and attested to by a formal internal process that will be linked to the Issuer's lending and investment operations for Green/Social Projects.	Review of: <ul style="list-style-type: none"> <li>KOWEPO Green Bond Report(2023)</li> <li>KOWEPO Green and Sustainability Financing Framework (2022)</li> <li>Sub Project Performance and Financial Documentation</li> <li>ERP system snapshot</li> </ul> Discussions with delegated staff at KOWEPO.	<p>The evidence reviewed shows how KOWEPO has tracked the BOND's proceeds appropriately, from the time of issuance to the time of disbursement. The proceeds were deposited in KOWEPO's general account and an amount equal to the net proceeds was earmarked for allocation to the Eligible Projects as selected by Sustainability Working Group (SWG). The Budget and Financing Office also tracked internally, with the use of a register to make sure that proceeds raised from the Sustainable Financing Instruments were allocated to Eligible Projects.</p> <p>DNV can confirm that KOWEPO's internal process managed and tracked the outstanding balance of the BOND proceeds.</p>
<b>3b</b>	Tracking procedure	So long as the Sustainability Bonds and Loans are outstanding, the balance of the tracked proceeds should be periodically reduced by amounts matching eligible green investments or loan disbursements made during that period.	Review of: <ul style="list-style-type: none"> <li>KOWEPO Green Bond Report(2023)</li> <li>KOWEPO Green and Sustainability Financing Framework (2022)</li> <li>Sub Project Performance and Financial Documentation</li> <li>ERP system snapshot</li> </ul> Discussions with delegated staff at KOWEPO.	<p>KOWEPO has confirmed to DNV that the proceeds of the BOND have been traced, from the time of issuance to the time of disbursement, and the net balance has been reduced in line with its financing schedule.</p> <p>DNV can confirm that the outstanding balance of the BOND is reviewed at the end of each financial year,.</p>
<b>3c</b>	Temporary holdings	Pending such investments or disbursements to eligible Green and Social Projects, the Issuer should make known to investors the intended types of temporary investment instruments for the balance of unallocated proceeds.	Review of: <ul style="list-style-type: none"> <li>KOWEPO Green and Sustainability Financing Framework (2022)</li> </ul> Discussions with delegated staff at KOWEPO.	<p>KOWEPO has confirmed to DNV that the unused proceeds are invested temporarily in cash, cash equivalents, and short-term money market instruments, as per KOWEPO's liquidity management policy.</p>

#### 4. Reporting

Ref.	Criteria	Requirements	Works Undertaken	DNV Findings
4a	Periodical reporting	<p>In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, Issuers should provide at least annually a list of projects to which Sustainability Bond proceeds have been allocated including</p> <ul style="list-style-type: none"> <li>when possible with regards to confidentiality and/or competitive considerations</li> <li>a brief description of the projects and the amounts disbursed, as well as the expected environmentally sustainable impact.</li> </ul>	<p>Review of:</p> <ul style="list-style-type: none"> <li>KOWEPO Website</li> <li>KOWEPO Green and Sustainability Financing Framework (2022)</li> </ul> <p>Discussions with delegated staff at KOWEPO.</p>	<p>KOWEPO has confirmed that it will include and maintain a dedicated section on the BOND in its website. This includes a description of the project and value of the proceeds invested, as well as the associated qualitative and quantitative environmental impacts.</p> <p><a href="https://www.iwest.co.kr/eng/850/subview.do">https://www.iwest.co.kr/eng/850/subview.do</a></p>



WHEN TRUST MATTERS

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