

# Korea Electric Power Corporation

**Type of Engagement:** Annual Review

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## Introduction

In 2019, 2020, 2021, June 2022 and September 2022, Korea Electric Power Corporation (KEPCO) issued green bonds (the “Green Bonds”) aimed at financing and refinancing solar photovoltaic and wind power renewable energy projects, new transmission infrastructure connecting renewable energy to grids and clean transportation. In October 2023, KEPCO engaged Sustainalytics to review the projects financed with the proceeds from the Green Bonds and provide an assessment as to whether the projects met the use of proceeds criteria and the reporting commitments outlined in the KEPCO Green Bond Framework 2019<sup>1</sup> and an update to it in September 2021.<sup>2</sup>

Sustainalytics has previously provided a Second-Party Opinion on the Framework in 2019<sup>3</sup> and an update to it in September 2021.<sup>4</sup> This is Sustainalytics’ second annual review of allocation and reporting of the instruments issued under the Framework, following a previous review in January 2023.

## Evaluation Criteria

Sustainalytics evaluated the projects and assets funded from the Green Bonds based on whether the projects and programmes:

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

**Table 1: Use of Proceeds Categories, Eligibility Criteria and Associated KPIs**

Use of Proceeds Category	Eligibility Criteria	Key Performance Indicators
Renewable Energy	<p>Financing or refinancing solar photovoltaic power and wind power projects and research and development expenses related to such projects</p> <p>Investment on expansion of existing renewable-related facilities or construction of new assets</p> <p>Investments on development /installation of new transmission infrastructure or improvement of the existing infrastructure to improve stability issues that arise from abrupt increase in renewable energy generation volume</p>	<ul style="list-style-type: none"> <li>• Renewable MWh generated or purchased</li> <li>• % of electricity consumption from renewable sources</li> <li>• Estimated avoided GHG emissions (tCO<sub>2</sub>eq)</li> <li>• Number of power outages avoided</li> <li>• Number of power outages in this year as opposed to previous year</li> </ul>

<sup>1</sup> KEPCO Sustainable Finance Framework, (2019), at:

[https://home.kepco.co.kr/kepco/cmmn/documentViewer.po?fn=BBS\\_202005201125196690&rs=/kepco/synap/doc](https://home.kepco.co.kr/kepco/cmmn/documentViewer.po?fn=BBS_202005201125196690&rs=/kepco/synap/doc)

<sup>2</sup> KEPCO Sustainable Bond Framework, (2021), at:

[https://home.kepco.co.kr/kepco/cmmn/documentViewer.po?fn=BBS\\_202109090500428990&rs=/kepco/synap/doc](https://home.kepco.co.kr/kepco/cmmn/documentViewer.po?fn=BBS_202109090500428990&rs=/kepco/synap/doc)

<sup>3</sup> KEPCO Sustainable Finance Framework Second Party Opinion, (2019), at:

[https://home.kepco.co.kr/kepco/cmmn/documentViewer.po?fn=BBS\\_202005201123366230&rs=/kepco/synap/doc](https://home.kepco.co.kr/kepco/cmmn/documentViewer.po?fn=BBS_202005201123366230&rs=/kepco/synap/doc)

<sup>4</sup> KEPCO Sustainable Finance Framework Second Party Opinion, (2021), at:

[https://home.kepco.co.kr/kepco/cmmn/documentViewer.po?fn=BBS\\_202109090501075990&rs=/kepco/synap/doc](https://home.kepco.co.kr/kepco/cmmn/documentViewer.po?fn=BBS_202109090501075990&rs=/kepco/synap/doc)

<b>Clean Transportation</b>	Finance or refinance purchase of electric vehicles (“EV”) and the investment associated with construction and installation of EV charging infrastructure.	<ul style="list-style-type: none"> <li>• Number of EV purchases, and</li> <li>• Estimated % replacement of old diesel or petrol fleet</li> <li>• Number of EV infrastructure constructed and location</li> <li>• Estimated GHG emissions reduced (tCO<sub>2</sub>eq)</li> </ul>
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## Issuer’s Responsibility

KEPCO 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 KEPCO’s green bonds. The work undertaken as part of this engagement included collection of documentation from KEPCO and review of said documentation to assess conformance with the KEPCO Green Bond Framework.

Sustainalytics relied on the information and the facts presented by KEPCO. 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 KEPCO.

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.

## Conclusion

Based on the limited assurance procedures conducted,<sup>5</sup> 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 KEPCO Green Bond Frameworks. KEPCO has disclosed to Sustainalytics that the 2019, 2020 and 2021 green bonds were fully allocated as of December 2021, July 2021 and April 2022 respectively. Also, KEPCO has disclosed to Sustainalytics that a total of USD 1.6 billion in proceeds were raised through the June and September 2022 green bonds, of which 51% of proceeds were allocated<sup>6</sup> and the remaining 49% of the proceeds will be temporarily invested in accordance with the KEPCO Green Bond Framework.

<sup>5</sup> 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.

<sup>6</sup> KEPCO intends to reach full allocation by 2024.

## Detailed Findings

Table 2: Detailed Findings

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

## Appendix

### Appendix 1: Allocation Reporting by Eligibility Criteria

Table 3: June 2022 Green Bond Allocation Reporting

Use of Proceeds Category	Sub-category	Allocation (USD) in millions
Renewable Energy	Overseas Solar PV Projects	84.8
	Domestic Wind Power Projects	13.1
Renewable Energy: Increasing stability in power supply	Connection Facility (Operation System) <sup>7</sup>	3.5
	Connection Facility (Transmission & Substation Facilities) <sup>8</sup>	91
	Connection Facility (Distribution) <sup>9</sup>	236.2
<b>Total</b>		<b>428.6</b>

Table 4: September 2022 Green Bond Allocation Reporting

Use of Proceeds Category	Sub-category	Allocation (USD) in millions
Renewable Energy	Empirical study and technology development for renewable energy	36.3
Clean Transportation	Empirical study and technology development for clean transportation	8.8
	Purchase of EVs	4.7
	Construction of EV charging infrastructure	7.7
Renewable Energy: Increasing stability in power supply	Connection facility (operation system) <sup>10</sup>	3.4
	Connection facility (transmission & substation facilities) <sup>11</sup>	91
	Connection facility (distribution) <sup>12</sup>	236.2
<b>Total</b>		<b>388.1</b>

<sup>7</sup> Establishment cost of operation system

<sup>8</sup> Construction costs of new transmission and substation facilities for renewable energy and expanding transmission and substation network capacity

<sup>9</sup> Construction costs of new distribution facilities for renewable energy and expanding distribution network capacity

<sup>10</sup> Establishment cost of operation system

<sup>11</sup> Construction costs of new transmission and substation facilities for renewable energy and expanding transmission and substation network capacity

<sup>12</sup> Construction costs of new distribution facilities for renewable energy and expanding distribution network capacity

## Appendix 2: Impact Reporting by Category

**Table 5: Renewable Energy Category – Solar PV and Wind only**

Projects	2022 Green Bond- Since project inception (until 2022)
Solar M&A (Colorado, US)	-
Solar (California, US)	-
Solar (Chitose, Japan)	-
Solar (Mexico) <sup>13</sup>	24,298.4
Solar (Guam) <sup>14</sup>	27,275.0
Wind Power (Fujeij, Jordan)	-
Offshore Wind Frame (SW Coast, Korea)	-
<b>Total</b>	<b>51,573.4</b>

**Table 6: Clean Transportation Category – Purchase of EV**

Year	Total Number of EV Purchase	GHG Emissions Avoided Annually (tCO <sub>2</sub> e)
2022	100	260

**Table 7: Clean Transportation Category – Construction of EV Charging Infrastructure**

Year	Total Number of Charging Infrastructure constructed	GHG Emissions Avoided Annually (tCO <sub>2</sub> e)
2022	817	4,996

**Table 8: Renewable Energy Category – Increasing Stability in Power Supply**

Year	Renewable Energy Connection (MW)	GHG Emissions Avoided Annually (tCO <sub>2</sub> e)
2021 <sup>15</sup>	2,550	735,384.8
2022	4,556	4,086,532

<sup>13</sup> As communicated by KEPCO, the solar power plant in Mexico halted operation in 2022 due to a lack of government approval but is set to resume operation in 2023.

<sup>14</sup> Project inception in 2022.

<sup>15</sup> As communicated by KEPCO, this renewable energy grid connection project was financed with proceeds from the 2022 Green Bonds' proceeds.

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