



**KAZAKHSTAN ELECTRICITY GRID
OPERATING COMPANY**

**KEGOC JSC
Green Bonds Annual Report**

Astana
2024

Introduction

KEGOC issued green bonds (ISIN KZ2C00007797) totalling KZT 32.1 billion on the Kazakhstan Stock Exchange (KASE) to finance two key projects: (1) Rehabilitation of 220-500 kV overhead transmission lines (OHTLs) at its Aktyubinskiye, Sarbaiskiye, and Zapadnye branches and (2) West Kazakhstan Electricity Transmission Reinforcement Project: Construction of new grid facilities. The bond issuances occurred on December 21, 2022 (KZT 16.1 billion) and March 30, 2023 (KZT 16 billion). The bid-to-cover ratio for KEGOC's green bonds was more than 80%, demonstrating significant investor interest. The main investors were banks and institutional investors.

The projects comply with the core categories of the International Capital Market Association's (ICMA) Green Bond Principles for improving energy efficiency in energy generation, transmission and distribution systems and constructing transmission lines and supporting infrastructure for renewable energy systems.

In preparation for the issuance, KEGOC commissioned AIFC Green Finance Centre Ltd. to conduct an external verification report in the form of a second-party opinion on the compliance of its Green Finance Policy with the Green Bond Principles of the International Capital Market Association (ICMA) (hereinafter referred to as the Report).

Bond issue parameters

Bond programme	Second
Total value of the bond programme at par value	KZT 80,000,000,000 (eighty billion tenge)
Issue within the bond programme	Second
Number of bonds issued	KZT 35,000,000 (thirty-five million pieces)
Total value of the bond issue at par value	KZT 35,000,000,000 (thirty-five billion tenge)
Type of bonds	Unsecured coupon bonds
Number of placed bonds	32,141,100 (thirty-two million one hundred forty-one thousand one hundred) pieces
Total value of the placed bonds at par value	KZT 32,141,100,000 (thirty-two billion one hundred forty-one million one hundred thousand tenge)
Number of unplaced bonds	2,858,900 (two million eight hundred fifty-eight thousand nine hundred) pieces
Total value of the unplaced bonds at par value	2,858,900,000 (two billion eight hundred fifty-eight million nine hundred thousand) tenge
Nominal value of one bond	KZT 1,000 (one thousand tenge)
Bond currency	Kazakhstani tenge (KZT)
Maturity	15 years from the bond listing date, which is the date of the first successful trade on the Kazakhstan Stock Exchange JSC in accordance with their rules.
Circulation period	21 December 2022 - 21 December 2037
Frequency of coupon payments	2 (two) times a year, every 6 (six) months, starting from the bond listing date annually until the maturity date
Interest rate (coupon rate)	The interest rate on bonds is floating for the entire period the bonds listing. The annual coupon rate is the sum of TONIA (Tenge OverNight Index Average) Compounded indicator and a fixed margin. The size of the fixed margin was set at the first trades for the placement of bonds at the level of 3% (three percent) per annum
Historical interest rates (coupon rates)	1 coupon period: 21 December 2022 - 20 June 2023: 20.06% 2 coupon period: 21 June 2023 - 20 December 2023: 20.20% the rate for the 3rd coupon period will be determined fourteen calendar days preceding the interest payment date for this coupon period
Intended use	Proceeds from the placement of the bond issue were used to finance “green projects” of KEGOC: 1) Rehabilitation of 220-500 kV OHTLs in KEGOC branches; 2) West Kazakhstan Electricity Transmission Reinforcement Project: Construction of Power Grid Facilities

Project objective:

1) The first stage of the project for "**Rehabilitation of 220-500 kV overhead transmission lines (OHTLs) in KEGOC branches: Aktyubinskiye MES, Sarbaiskiye MES, and Zapadnye MES branch of KEGOC** (the first project).

Project goal: ensure the dependability of the operation of Kazakhstan's national power grid (hereafter referred to as the NPG) by rehabilitating the existing power lines some elements of Smart Grid technologies, which will improve energy efficiency and reliability of networks and promote the development of renewable energy sources. It is planned to restore the technical characteristics of power transmission lines in order to extend their service life, maintain/improve transmission conditions by at least 30 years, increase the max transmission capacity of the overhead lines, and reduce losses. The total length of the rehabilitated 220-500 kV OHTLs for stage one is 2029 km. At this stage of the project, it is planned to install a composite ground wire cable with optical fibres (OPGW) for rehabilitation of the lines with a total length of 242.8 km (62.3 km on 220 kV L-2106 "Sokol - Lissakovskaya" overhead line and 180.5 km on 500 kV L-5726 "Zhitikara - Sokol" overhead line). It will increase the percentage of KEGOC's overhead lines equipped with OPGW from current 20% to 21%. OPGW plays a critical role as a communication infrastructure backbone for current and future Smart Grid technologies.

Expanding the reach of fiber optic communication lines (FOC) boosts the data-carrying capacity of existing channels, paving the way for KEGOC's planned SCADA modernization. This crucial upgrade will enhance KEGOC's ability to monitor electricity market participants, especially considering the growing penetration of renewable energy sources (RES). RES installations require continuous monitoring due to their inherent variability in generation. Additionally, the SCADA modernization will support the introduction of the capacity market and the upcoming launch of the balancing market.

The construction and installation works at 24 OHTLs selected for rehabilitation have been completed. Since the beginning of the project, all 2,023 km of overhead lines have been rehabilitated.

The project implementation period is 2018-2023.

Energy efficiency impact: a 10% reduction in the average energy loss rate achieved through project implementation, compared to the average actual electricity loss rate for the period 2000-2019.

2) **West Kazakhstan Electricity Transmission Reinforcement Project: Construction of electrical grid facilities"** (the second project).

Project goal: construction of the second circuit of the existing 220 kV Uralskaya - Pravoberezhnaya - Inder - Karabatan - Kulsary - Tengiz electricity transmission and connecting it to the existing 220 kV substations and the new

Karabatan distribution centre. This will double the capacity of the 220 kV network and significantly improve the reliability of the power supply to consumers. This project is an integral part of large-scale NPG modernization projects and will be synchronized with the commissioning of new generating capacities, providing the necessary interregional and interstate power flows.

According to 2023-2029 Kazakhstan Electric Power Industry Development Concept, further reinforcement of Zone West and Zone South and their subsequent interconnection create conditions for the integration of Zone West of the power system with UPS of Kazakhstan, enabling it to operate also in isolation, if necessary, and supporting the large-scale penetration of renewable energy sources into the energy mix. According to the approved 2035 Energy Balance, Zone West is expected to see the increase the commissioning of RES capacity in 2035: **9.3 times** compared to 2022 (up to 1.102 GW), and 9 times (up to 1.068 GW) by 2025.

RES commissioning in Zone West (MW) (cumulative):

years	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Wind	116	116	766	766	766	766	766	766	800	800	800	800	800
Solar	2	302	302	302	302	302	302	302	302	302	302	302	302

According to the Preliminary NPG Future Development Vision (Draft 2035 National Power Grid Development Vision Concept), the area of the subject project for construction of the second circuit of the existing 220 kV transmission line (Uralskaya - Pravoberezhnaya - Inder - Karabatan - Kulsary - Tengiz) is expected to see about 600 MW of wind RES capacity, which is 56% of the generation capacity planned for commissioning in the subject area. The percentage of RES in Zone West's total installed capacity (3620 MW) as of January 1, 2022 was 3.3%. By 2035, in accordance with the NPG future development vision, the percentage of RES in Zone West's total installed capacity shall grow to 16.3% (1,102 MW of the total installed capacity of 6,746 MW). This means that 31% of the newly installed generating capacity in Zone West until 2035 will come from newly installed RES capacities.

The auction held in November 2022 as part of the implementation of the Law "On Supporting the Use of Renewable Energy Sources", awarded a winner (Sarkylmas Kuat LLP) a wind farm capacity for 50 MW in Zone West (Mangistau region). In November 2023, a solar power plant capacity for 20 MW in the West Kazakhstan region was awarded to Stellar Energy LLP.

The installation of conductor has been completed over the entire length of the overhead line (779.7 km), including 481.9 km installed in 2023. All planned 4,203 transmission line towers have been installed, including 1,305 towers installed in 2023. On November 28, 2023, the 220 kV Uralskaya - Pravoberezhnaya - Inder - Karabatan - Kulsary - Tengiz overhead line, spanning a total of 779.7 kilometers, was officially commissioned with the participation of Alikhan Smailov, the Prime Minister of the Republic of Kazakhstan, via teleconference.

Project environmental impact: facilitation of RES scaling up by increasing access of the commissioned RES to power transmission lines (by 2035, RES connected to the network in the subject area will make at least 50% of the generation planned for commissioning).

The project implementation period is 2018-2023.

Management of proceeds

According to the Green Financing Policy of KEGOC, approved by the decision of the Management Board of KEGOC Minutes No. 26 dated October 11, 2022 (hereinafter referred to as the Policy) the Green Finance Working Group (hereinafter referred to as the Working group):

- shall monitor the disbursement of funds received from the issuance of green bonds or from green loans once a quarter. Any undisbursed borrowed funds shall be used in accordance with the Corporate Standard for Treasury Operations by placing funds in liquid instruments (and not in non-green investment projects) until they are fully utilized.

- every six months, shall oversee the intended use of borrowed funds for the projects financed and/or refinanced using green financing instruments that are part of the portfolio (register) of green projects. If the borrowed funds are not used for its the intended purpose, the Working Group shall remove the corresponding project from the portfolio (register) of green projects and replace it with a different project (that complies with the Policy's requirements). If such replacement is not possible, the measures outlined in the issue (loan) documentation shall be implemented.

The members of the Green Finance Working Group were appointed by Chairman of KEGOC's Management Board, order No. 210, dated October 12, 2022.

According to the quarterly reports of the Working Group, in the period from December 21, 2022 to December 31, 2023, borrowed funds were disbursed as follows:

Date of raising	Raised at nominal value	Disbursed				KZT thousand Balance of unallocated funds	
		Disbursed	Percentage	Rehabilitation of 220-500 kV OHTLs in Aktyubinskiy e MES branch, Sarbaiskiye MES branch and Zapadnye MES branch of KEGOC;	West Kazakhstan Electricity Transmission Reinforcement Project. Construction of Power Grid Facilities	In monetary terms	Percentage
21 December 2022	16141100	16141100		5102908	11038192	0	
30 March 2023	16000000	11560589		1349722	10210867	4439411	
Total	32141100	27701689	86.19 %	6452630	21249059	4439411	13.81%

Thus, during the reporting period from the moment the bonds were issued, 86.19% of the funds raised were allocated. The balance to be allocated in future periods is 13.81% of funds raised from the issuance of the green bonds. The projects have been completed, the remaining funds will be used for final payments on the projects.

Undisbursed borrowed funds, in accordance with the Corporate Standard for Treasury Operations, were placed in short-term notes of the National Bank of the Republic of Kazakhstan and deposits of second-tier banks of the Republic of Kazakhstan.

Note: According to the report of KEGOC, before the issuance of green bonds, it planned to use the option of allocating part of the issue to reimburse the costs of green projects incurred from December 1, 2022 to the date of the bond issue (i.e., incurred within 2-3 weeks before the bond placement) in order to avoid cash gaps. However, this option has not been used by KEGOC: funds from the green bonds issue have been used by KEGOC exclusively for new expenses on green projects incurred after the placement of the bond under the contracts with suppliers, and have not been used for reimbursement of previously incurred costs.

According to the semi-annual reports of the Working Group the borrowed funds have been used for 'Rehabilitation of 220-500 kV OHTLs at KEGOC's Aktyubinskiye MES branch, Sarbaiskiye MES branch and Zapadnye MES branch' project, and 'West Kazakhstan Electricity Transmission Reinforcement Project: Construction of Power Grid Facilities'.

The report specifies a list of contracts with suppliers and contractors for allocation of funds from the placement of green bonds (hereinafter referred to as the List).

Following the verification of the work performed on the projects and the updated plan of expenditures for them, the Working Group made the following decisions:

For the purpose of implementation of 'West Kazakhstan Electricity Transmission Reinforcement Project: Construction of Power Grid Facilities':

- 1) reduce the amount of one contract with a contractor previously included in the List;
- 2) include in the List four contracts with suppliers for an amount equivalent to the amount of the above reduction.

**Managing Director for
Finance and Accounting**



Aigul Akimbayeva