



KAZAKHSTAN ELECTRICITY GRID
OPERATING COMPANY

KEGOC JSC
Second Green Bonds Annual Report

Astana
2025

Introduction

KEGOC issued green bonds (ISIN KZ2C00007797) totalling KZT 32.1 billion on the Kazakhstan Stock Exchange (KASE) to finance two key projects: Rehabilitation of 220-500 kV overhead transmission lines (OHTLs) at its Aktyubinskiye, Sarbaiskiye, and Zapadnye branches and 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.

As part of the issuance, KEGOC JSC received a pre-issuance external review report from AIFC Green Finance Centre Ltd. on November 18, 2022, in the form of a Second-Party Opinion confirming the compliance of KEGOC JSC's Green Finance Policy with the Green Bond Principles established by the International Capital Market Association (ICMA). Additionally, on January 30, 2024, the company received a post-issuance verification report on its first Green Bond Annual 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	KZT 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
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 date of bonds circulation start annually until the maturity date
Interest rate (coupon rate)	The interest rate on bonds is floating for the entire period of circulation of the bonds. 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% 3 coupon period: 21 December 2023 - 20 June 2024: 17.71% 4 coupon period: 21 June 2024 - 20 December 2024: 17.00% the rate for the 5th 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 (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 with components 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

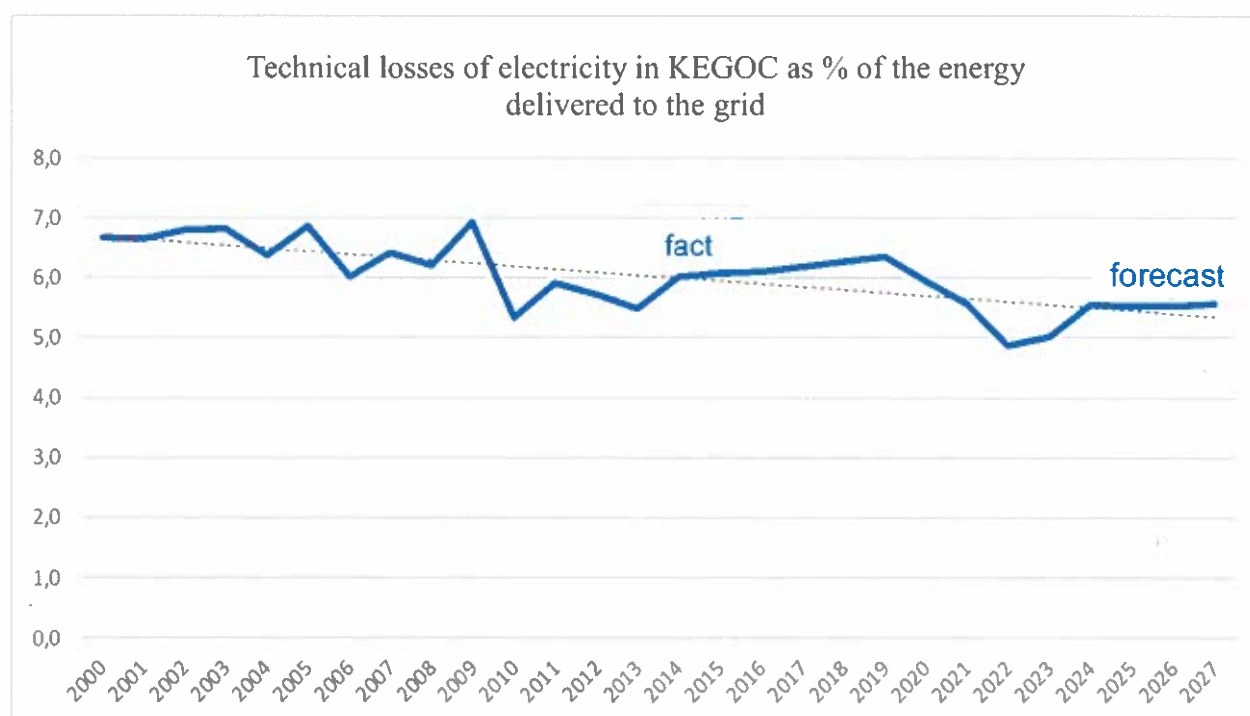
of the overhead lines, and reduce losses. The length of the rehabilitated 220-500 kV OHTLs for stage one is 2029 km. Stage one will use a composite ground wire cable with optical fibres (OPGW) for rehabilitation with a total length of 242.8 km (62.3 km on 220 kV overhead line L-2106 "Sokol - Lissakovskaya" and 180.5 km on the overhead line 500 kV L-5726 "Zhitikara - Sokol"). 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 fibre 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 work at 24 OHTLs selected for rehabilitation have been completed. Since the beginning of the project, all 2029 km of overhead lines have been rehabilitated.

The project implementation period is 2018-2023.

Energy efficiency performance indicator: Taking into account the actual technical energy loss indicators in the grid for 2020-2023 (i.e., since the start of the actual implementation of Phase I of the project in 2019), the project has resulted in a 14% reduction in the average energy loss compared to the average actual energy losses recorded from 2000 to 2019—from 6.3% to 5.4%.



2) West Kazakhstan Electricity Transmission Reinforcement Project: Construction of electrical grid facilities" (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 in isolation, if necessary, and supporting the large-scale penetration of renewable energy sources into the energy mix. According to the approved "Energy Balance until 2035," the installed capacity of renewable energy sources (RES) in the Western zone is expected to increase 9.3 times by 2035 compared to 2022, reaching 1.102 GW.

Installed capacity in the western zone (MW):

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 (PV)	2	302	302	302	302	302	302	302	302	302	302	302	302

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

years	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Wind		650	650	650	650	650	650	684	684	684	684	684
Solar (PV)	300	300	300	300	300	300	300	300	300	300	300	300

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 specified area. According to the approved "Energy Balance until 2035," in the Western zone, the share of newly commissioned renewable energy generation capacity is expected to account for 37.4% of the total planned capacity additions by 2035. 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).

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 conductor has been installed over the entire length of the overhead line (779.7 km), including 481.9 km installed in 2023. All planned 4,203 transmission line tower 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 kilometres, was officially commissioned with the participation of the Prime Minister of the Republic of Kazakhstan, Alikhan Smailov, via teleconference.

Project environmental impact indicator: facilitation of the scaling up of renewable energy utilization by enhancing access for newly commissioned renewable energy capacities to transmission lines. In the Western zone, the share of newly commissioned renewable energy generation capacities connected to the grid is expected to reach 37.4% of the total planned capacity additions by 2035. Thanks to the commissioning of new renewable energy capacities, the average emission factor of the grid, based on electricity generation sources in the Western zone of Kazakhstan, is expected to decrease by 43% from 2022 to 2035—from 0.5253 tCO₂/MWh to 0.2982 tCO₂/MWh.

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):

- monitors the disbursement of funds received from the issuance of green bonds or attraction of green loans once a quarter. If there are undisbursed borrowed funds, they are used in accordance with the Corporate Standard for Treasury Operations, covering the issues of placing funds in liquid instruments (and not in non-green investment projects) until they are fully utilized.

- every six months, oversees the intended use of borrowed money 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 removes the corresponding project from the portfolio (register) of green projects and replaces 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 are 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, during the period from January 1, 2024, to December 31, 2024, the loan funds were utilized as follows:

KZT thousand

Raised at nominal value	Balance as of 31 Dec. 2023	Utilized during the period 01 Jan. 2024 – 31 Dec. 2024			Remainder	
		total, incl.:	Rehabilitation of 220-500 kV OHTLs in Aktyubinskiye 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	in %
32,141,100	4,439,411	1,479,496	984,889	494,607	2,959,914	9%

Thus, during the reporting period from the moment the bonds were issued, 91% of the funds raised were allocated. The balance to be allocated in future periods is 9% 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.

Unutilized loan funds were placed in deposits with second-tier banks in the Republic of Kazakhstan, in accordance with the Corporate Treasury Operations Standard.

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'.

**Managing director
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Alga Akimbayeva