

Second-Party Opinion

PKO Group Green Bond Framework



Evaluation Summary

Sustainalytics is of the opinion that the PKO Group Green Bond Framework is aligned with the four core components of the Green Bond Principles 2021. This assessment is based on the following:



USE OF PROCEEDS The eligible categories for the use of proceeds – Financing Buildings, Clean Transportation, Renewable Energy, Sustainable Water Supply Management, Sustainable Wastewater Management, Sustainable Waste Management – are aligned with those recognized by the Green Bond Principles. Sustainalytics considers that investments in the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDGs 6, 7, 9, 11 and 12.



PROJECT EVALUATION AND SELECTION PKO Group's Sustainable Development Committee and PKO Bank Hipoteczny's Green Covered Bond Committee will evaluate, select and monitor eligible projects. PKO Group's Sustainable Development Committee comprises two management board members and representatives from different departments, including Administration, Finance, Retail Clients and ESG Sustainable Development. PKO Bank Hipoteczny's Green Covered Bond Committee comprises one member of the management Board and representatives of the Treasury Office, Residential Mortgage Loans Office, Risk Office, Compliance Office, Controlling Office and Cover Pool Register Responsible Office. PKO Group has internal processes to address environmental and social risks associated with the eligible assets. Sustainalytics considers the project selection process in line with market practice.



MANAGEMENT OF PROCEEDS PKO Group's Sustainable Development Committee and PKO Bank Hipoteczny's Green Covered Bond Committee will be responsible for management and allocation of proceeds on a portfolio basis using an internal tracking system. PKO Group intends to allocate net proceeds within 24 months of issuance. Pending full allocation, PKO Group may temporarily hold unallocated proceeds in cash, cash equivalents or short-term liquid instruments. This is in line with market practice.



REPORTING PKO Group commits to report on the allocation of proceeds on its website on an annual basis until maturity of the bonds. Allocation reporting may include the notional amount and maturities of the outstanding green bond issues, total amount of proceeds allocated to eligible loans, number of eligible loans, balance of unallocated proceeds, and amount or percentage of the eligible assets' portfolio allocated. In addition, PKO Group intends to report on relevant impact metrics. Sustainalytics views PKO Group's allocation and impact reporting as aligned with market practice.

Evaluation date August 23, 2024

Issuer Location Warsaw, Poland

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Introduction

PKO Bank Polski SA (“PKO BP”) is a universal deposit and credit bank which services both Polish and foreign individuals, and legal and other entities. Established in 1919, PKO BP is headquartered in Warsaw, Poland. PKO BP is the parent bank of PKO Bank Polski S.A. Group (“PKO Group” or the “Bank”). PKO Group has subsidiaries in Ireland, Sweden and Ukraine, which includes PKO Bank Hipoteczny. As of June 2024, PKO Group had 945 branches and 277 agencies in Poland, Germany, Czechia, Slovakia and Romania.

PKO Group has developed the PKO Group Green Bond Framework dated August 2024 (the “Framework”) under which it intends to issue senior preferred, senior non-preferred, subordinated bonds, unsecured bonds and covered bonds,¹ and use the proceeds to finance or refinance, in whole or in part, existing or future loans that are expected to contribute to decarbonizing the building stock and to reducing GHG emissions in Poland and other countries in Europe. The Framework defines eligibility criteria in six areas:

1. Financing Buildings
2. Clean Transportation
3. Renewable Energy
4. Sustainable Water Supply Management
5. Sustainable Wastewater Management
6. Sustainable Waste Management

PKO Group engaged Sustainalytics to review the Framework and provide a Second-Party Opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2021 (GBP).² The Framework will be published in a separate document.³

Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent⁴ opinion on the alignment of the reviewed Framework with current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Green Bond Principles 2021, as administered by ICMA;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.17, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of PKO Group’s management team to understand the sustainability impact of its business processes and planned use of proceeds, as well as the management of proceeds and reporting aspects of the Framework. PKO Group representatives have confirmed that: (1) they understand it is the sole responsibility of PKO Group to ensure that the information provided is complete, accurate and up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

¹ PKO Group has confirmed to Sustainalytics that: i) covered bonds may include covered green standard bonds and covered green collateral bonds as defined in the June 2022 Appendix of the Green Bond Principles 2021; ii) the net proceeds from covered bonds will be directed to eligible green assets under the Framework; iii) in the case of covered green collateral bonds, the underlying collateral will meet the Framework criteria; and iv) there will be no double counting of eligible projects under covered bonds or any other outstanding green financing instrument.

² The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.

³ The PKO Group Green Bond Framework will be made publicly available on the Bank’s website.

⁴ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and PKO Group.

Sustainalytics' Second-Party Opinion assesses alignment of the Framework with market standards but provides no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics' Second-Party Opinion addresses the anticipated impacts of eligible projects but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the issuer.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee their realized allocation towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that PKO Group has made available to Sustainalytics for the purpose of this Second-Party Opinion.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the PKO Group Green Bond Framework

Sustainalytics is of the opinion that the PKO Group Green Bond Framework is aligned with the four core components of the GBP. Sustainalytics highlights the following elements of the Framework:

- Use of Proceeds:
 - The eligible categories – Financing Buildings, Clean Transportation, Renewable Energy, Sustainable Water Supply Management, Sustainable Wastewater Management, Sustainable Waste Management – are aligned with those recognized by the GBP.
 - Sustainalytics notes the Bank will limit refinancing under the Framework to capital expenditures and, therefore, no look-back period has been established. This is in line with market practice.
 - Under the Financing Buildings category, PKO Group may finance or refinance loans for the construction, renovation, acquisition and ownership of:
 - New or existing residential or commercial buildings built before 31 December 2020 in the top 15% most energy-efficient buildings in Poland based on primary energy demand (PED).
 - New or existing residential or commercial buildings built after 1 January 2021 with PED at least 10% lower than the PED resulting from the nearly zero-energy building (NZEB) requirements in Poland.
 - Renovation of existing buildings that comply with the following criteria:
 - Applicable requirements for major renovations implementing the EU Energy Performance of Buildings Directive (Directive 2010/31/EU, the "EPBD").⁵ Sustainalytics notes that the EU Taxonomy also requires renovations to meet the cost-optimal minimum energy performance requirements implementing the EPBD, which vary among EU member states. Sustainalytics, therefore, encourages PKO Group to report on the actual PED or energy savings achieved in each region.
 - A minimum 30% improvement in primary energy demand over pre-renovation levels.
 - PKO Group has confirmed to Sustainalytics that only retrofits will be financed, and not the asset value of the building.
 - New or existing commercial buildings that are certified to BREEAM Excellent or above, LEED Gold or above, HQE Excellent or above,⁶ and DGNB Gold or above.⁷

⁵ EUR-Lex, "Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings", (2010), at: <https://eur-lex.europa.eu/eli/dir/2010/31/oj>

⁶ HQE: <https://www.hqegbc.org/en/qui-sommes-nous-alliance-hqe-gbc/la-certification-hqe/>

⁷ DGNB: <https://www.dgnb.de/en>

- New or existing residential buildings that comply with TC 2017⁸ or later eligibility criteria for low-carbon buildings under the Climate Bonds Standard and its established residential market proxy for Poland.⁹
- Equipment to improve energy efficiency, including energy-efficient windows, doors, light sources, HVAC and water heating systems.
- Installation of on-site renewable energy technologies, such as solar photovoltaic (PV) systems, solar hot water panels and heat pumps.
 - The Bank has confirmed to Sustainalytics that it will finance electric heat pumps or absorption heat pumps powered by solar or geothermal energy, and that it will exclude absorption heat pumps driven by fossil fuels from financing under the Framework.
 - Sustainalytics notes that heat pumps offer an energy-efficient heat transfer alternative to conventional systems. Nevertheless, Sustainalytics encourages PKO Group to exclude financing of heat pumps with high-GWP refrigerants, and to promote robust refrigerant leak control, detection and monitoring, while ensuring recovery, reclamation, recycling or destruction of refrigerants at end of life.
- PKO Group has confirmed to Sustainalytics the exclusion of: i) buildings designed for the purpose of extraction, storage, transportation or manufacture of fossil fuels; and ii) technologies designed or intended for processes that are inherently carbon intensive, primarily driven or powered by fossil fuels.
- Sustainalytics considers the expenditures under this category to be aligned with market practice.
- Under the Clean Transportation category, PKO Group may finance or refinance loans for the acquisition, manufacturing or development of:
 - Zero direct emissions passenger and commercial vehicles, and public transport buses.
 - Hybrid passenger and light commercial vehicles, and public transport buses with an emissions intensity up to 50 gCO₂/pkm until 2025.¹⁰
 - Zero direct emissions passenger rail transport assets, including metro, tram and trains.
 - Zero direct emissions rail transport assets, including bi-mode transportation. Sustainalytics notes that the Framework excludes the financing of transport dedicated to fossil fuels.
 - Road and rail low-carbon transport infrastructure, including electric vehicle charging stations, hydrogen fuelling stations, public cycling infrastructure, and train and bus stations for vehicles listed under the criteria above. PKO Group may also finance overhead electric connections for metro and tram lines and has confirmed to Sustainalytics that expenditures related to roads, bridges or tunnels will be excluded from financing under the Framework.
 - [Placeholder for opinion].
- Under the Renewable Energy category, PKO Group may finance or refinance loans for the acquisition, development, manufacturing, construction, distribution and maintenance of renewable energy generation from:
 - Solar power, including onshore and offshore photovoltaics, concentrated solar power (CSP) and solar thermal facilities. PKO Group has confirmed to Sustainalytics that more than 85% of the electricity generated from such facilities will be derived from solar energy.
 - Onshore and offshore wind power generation. For offshore wind power, fossil fuel backup will be limited to power monitoring, operating and maintenance equipment, as well as resilience or protection measures and restart capabilities.
 - Sustainalytics considers the expenditures under this category to be aligned with market practice.

⁸ Climate Bonds Initiative, "Eligible Residential Building – Poland", at: <https://www.climatebonds.net/files/files/Residential%20Proxy%20Poland%281%29.pdf>

⁹ Climate Bonds Initiative, "Low Carbon Buildings", at: <https://www.climatebonds.net/standard/buildings>

¹⁰ PKO Group has confirmed to Sustainalytics that the carbon intensity is measured based on the Worldwide Harmonized Light-Duty Vehicles Test Procedure (WLTP).

- Under the Sustainable Water Supply Management category, PKO Group may finance or refinance loans for:
 - The construction, extension and operation of drinking water collection, treatment and supply systems, where: i) the maximum net average energy consumption for abstraction and treatment is 0.5 kWh per cubic meter of produced water supply; or ii) the leakage level is calculated using the Infrastructure Leakage Index (ILI) rating method and the threshold value is at most 1.5 or below the levels given in Directive (EU) 2020/2184.¹¹
 - Renewal of water supply systems, including renewals to water collection, treatment and distribution infrastructure for domestic and industrial needs, where renewal of the water supply system leads to : i) improved energy efficiency either by decreasing the net average energy consumption of the system by at least 20% compared to own baseline performance averaged for three years; or ii) by closing the gap by at least 20% between the current leakage level averaged over three years calculated using the ILI rating method and an ILI of 1.5, or the applicable levels given in relevant EU directives.
 - Sustainalytics notes that these criteria are aligned with those defined in the EU Taxonomy Climate Delegated Act and activity-related technical screening criteria.
 - PKO Group has confirmed to Sustainalytics that the following will not be financed under the Framework: i) equipment dependent on fossil fuels; and ii) systems and measures to provide water for fossil fuel operations and mining.
 - The Bank has confirmed that treatment of wastewater will not be financed under this category.
 - Sustainalytics considers the expenditures under this category to be aligned with market practice.
- Under the Sustainable Wastewater Supply Management category, PKO Group may finance or refinance loans for:
 - The construction, extension and operation of centralized wastewater systems, including collection (sewer network) and treatment fulfilling the EU Taxonomy substantial contribution to climate change mitigation technical screening criteria.
 - The renewal of centralized wastewater systems, including collection (sewer network) and treatment, such that energy efficiency is improved by decreasing the average energy consumption of the system by at least 20% compared to own baseline performance averaged over three years, demonstrated on an annual basis.
 - The construction and operation of facilities for the treatment of sewage sludge by anaerobic digestion including the production of biogas where:
 - A monitoring and contingency plan is in place to minimize methane leakage at the facility; and
 - Sustainalytics notes these criteria are aligned with those defined in the EU Taxonomy Climate Delegated Act and activity-related technical screening criteria.
 - PKO Group has confirmed that it will exclude the following from financing: i) treatment of wastewater from fossil fuel operations, such as sewage sludge; and ii) systems and treatment facilities dedicated to controversial activities that have harmful social or environmental impact, such as industrial scale livestock.
 - Sustainalytics considers the expenditures under this category to be aligned with market practice.
- Under the Sustainable Waste Management category, PKO Group may finance or refinance loans for:
 - The collection and transportation of non-hazardous waste segregated at source and prepared for reuse or recycling. PKO Group has communicated to Sustainalytics that the acquisition of waste collection vehicles is not under the scope of this activity. Sustainalytics views such expenditures to be in line with market practice.
 - The construction and operation of facilities for anaerobic digestion of bio-waste defined as biodegradable garden and park waste, food and kitchen waste to produce biogas, meeting the following criteria:
 - A monitoring and contingency plan is in place to minimize methane leakage at the facility;
 - The bio-waste used for anaerobic digestion is segregated at source and collected separately; and
 - The produced digestate is used as fertilizer or soil improver, either directly or after composting or any other treatment. In the dedicated bio-waste treatment

¹¹ European Parliament, "Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption", (2020), at: <https://eur-lex.europa.eu/eli/dir/2020/2184/oj>

- plants, the annual average share of food and feed crops used as input feedstock, measured in weight, is limited to 10%.
- PKO Group has confirmed that: i) it will track the source of used cooking oil in a credible manner under a certification, such as ISCC;¹² and ii) fish residues will be sourced from certified aquaculture.
 - PKO Group has confirmed to Sustainalytics the exclusion of: i) waste from non-RSPO certified palm oil operations; ii) animal fats, oil and other animal processing by-products; and iii) animal manure from industrial-scale livestock operations.
 - Sustainalytics considers these expenditures to be in line with market practice.
- The construction and operation of facilities for material recovery from separately collected non-hazardous waste where the activity converts at least 50% of the processed waste in terms of weight into secondary raw materials through mechanical reprocessing. The materials are suitable for the substitution of virgin materials in production processes. This is in line with market practice.
 - The installation and operation of landfill gas capture and utilization in permanently closed landfills. Sustainalytics notes that landfill gas capture for energy generation is one of the key waste management strategies for reducing methane emissions from landfills with no gas capture and from open dumps. Sustainalytics encourages the Bank to monitor and report on gas capture efficiency in order to estimate the overall benefits to be achieved over the gas generation lifetime of the facility (approximately 150 years).
- The Framework excludes financing of carbon intensive activities, activities involving violations of human rights and any other activity that PKO Group determines to be ineligible for allocation of proceeds. Additionally, PKO Group has communicated to Sustainalytics that the Bank also excludes tobacco products or weapons and related infrastructure from financing under the Framework.
- Project Evaluation and Selection:
 - PKO Bank Hipoteczny, a subsidiary of the PKO Group, has established a Green Covered Bond Committee, which is responsible for evaluating and selecting eligible loans and projects associated with covered bonds, in accordance with the eligibility criteria of the Framework. The Green Covered Bond Committee comprises one member of the Management Board and representatives of the Treasury Office, Residential Mortgage Loans Office, Risk Office, Compliance Office, Controlling Office and Cover Pool Register Responsible Office.
 - PKO Group has also established a Sustainable Development Committee, which is responsible for evaluating and selecting eligible loans and projects in relation to the other types of bonds, in accordance with the eligibility criteria of the Framework. The Sustainable Development Committee comprises two members of the Management Board and representatives of the following departments: Administration, Finance, Retail Clients, Strategic Corporate Clients Relations and Financing Projects, Corporate and Enterprise Banking Transformation, Accounting and Reporting, Strategy, ESG Sustainable Development, Employee Relations, Banking Risk, and Mortgage Banking.
 - For all lending activities, the PKO Group conducts an ESG assessment evaluating both the impact of the loan on the ESG issues and the impact of the ESG factors on the loan. Sustainalytics considers these environmental and social risk management systems to be adequate and aligned with the requirements of GBP. For additional details, see Section 2.2.
 - Based on the established process for project evaluation and selection and the presence of a risk management system, Sustainalytics considers this process to be in line with market practice.
 - Management of Proceeds:
 - The Green Covered Bond Committee and the Sustainable Development Committee will be responsible for the management of the proceeds in relation to covered bonds and the other types of bonds, respectively. PKO Group will track net proceeds using an internal tracking system and manage the net proceeds on a portfolio level with the intent to ensure a higher balance of eligible green loans than the total outstanding balance of all green bonds.
 - PKO Group intends to fully allocate proceeds within 24 months of each issuance. Pending full allocation, PKO Group will temporarily place proceeds in its treasury liquidity portfolio or hold them in cash or other short-term and liquid instruments, such as green and social bonds.

¹² ISCC, "Certification", at: <https://www.iscc-system.org/certification/>

- Based on the presence of a tracking system and the disclosure of the temporary unallocated use of proceeds, Sustainalytics considers this process to be in line with market practice.
- Reporting:
 - PKO Group will report on allocation of proceeds and corresponding impact on its website on an annual basis until the maturity of the bonds.
 - Allocation reporting may include the: i) notional amount and maturities of the outstanding green bond issues; ii) total amount of proceeds allocated to eligible loans; iii) number of eligible loans; iv) balance of unallocated proceeds, if any; and v) amount or percentage of eligible assets allocated.
 - PKO Group intends to align its impact reporting with the ICMA Harmonised Framework for Impact Reporting.¹³ The impact metrics may include: i) annual primary energy savings (in MWh/GWh); ii) annual GHG emissions avoided (in tCO₂e); iii) annual renewable energy generation (in MWh/GWh); iv) number of km of new train lines and bicycle lanes; and v) number of financed / refinanced sustainable water collection, treatment and supply systems.
 - Based on the commitments to allocation and impact reporting, Sustainalytics considers this process to be in line with market practice.

Alignment with the Green Bond Principles 2021

Sustainalytics has determined that the PKO Group Green Bond Framework aligns with the four core components of the GBP.

Section 2: Sustainability Strategy of PKO Group

Contribution to PKO Group's sustainability strategy

PKO Group integrates sustainability considerations into its lending activities as part of the implementation of its sustainability goals and policies. PKO Group first established sustainably targets in 2021, then updated them in its 2023-2025 strategy^{14,15} to include specific goals for each of its ESG pillars.¹⁶

As part of its environmental pillar, PKO Group has set the following targets for 2025: i) expand the product offerings supporting sustainable development and transformation projects; ii) advance ESG financing in each business segment, supporting customers with energy transformation expertise; iii) identify priority sectors and customers to support decarbonization; iv) achieve climate neutrality in scope 1 and 2 emissions by 2030, through reduction in energy consumption; v) obtain more than 90% of purchased energy certified as green-sourced; and vi) issue PKO Group's first green bond.^{17,18}

In 2023, PKO BP's volume of new financing for sustainable development amounted to PLN 2.2 billion (EUR 512 million),¹⁹ while as since December 2023, PKO Bank Hipoteczny had outstanding green covered bonds worth PLN 2.7 billion (EUR 615 million).²⁰ To further support a gradual change in the structure of PKO Group's loan portfolio, the Bank developed a lending policy in 2019 to limit financing of carbon-intensive sectors, particularly coal.^{21,22} In 2020, PKO Group also adopted a Renewable Energy Sources policy to increase the share of financing for renewable energy sources by PKO Group's entities.²³ Furthermore, PKO Group is working on determining the emissions intensity of its asset portfolio to include scope 3 emissions in its reporting and

¹³ ICMA, "Handbook: Harmonised Framework for Impact Reporting", (2023), at: <https://www.icmagroup.org/assets/documents/Sustainable-finance/2023-updates/Handbook-Harmonised-framework-for-impact-reporting-June-2023-220623.pdf>

¹⁴ PKO Bank Polski, "PKO Bank Polski took into account ESG ratios in non-financial purposes", (2021), at: <https://en.media.pkobp.pl/149050-pko-bank-polski-took-into-account-esg-ratios-in-non-financial-purposes>

¹⁵ PKO Bank Polski, "Strategy of PKO Bank Polski S.A. 2023-2025", (2022), at: <https://www.pkobp.pl/investor-relations/strategy-of-pko-bank-polski-s-a-20232025/>

¹⁶ PKO Bank Polski, "Outlook 2023, Ambitious ESG goals 2023-2025", at: https://www.pkobp.pl/media_files/02c6ac0d-6dec-4f59-a8af-98f2362bbe06.pdf

¹⁷ PKO Bank Polski, "The PKO Bank Polski S.A. Group Directors' Report for 2023", at: https://www.pkobp.pl/media_files/51b99b67-738e-47e2-84d9-0ed046ebc2d0.pdf

¹⁸ PKO Bank Polski, "Sprawozdanie Zarządu z działalności Grupy Kapitałowej PKO Banku Polskiego S.A. za 2023 rok", at: https://www.pkobp.pl/media_files/1b4f0dce-e25c-4c40-8804-20526814749e.xhtml

¹⁹ Ibid.

²⁰ PKO Bank Hipoteczny, "PKO Bank Hipoteczny Green Bond Allocation Report", (2023) https://www.pkobh.pl/media_files/e0aed54a-7b8a-4e0b-bc1b-fd9dc0c0c645.pdf

²¹ PKO Bank Polski, "The PKO Bank Polski S.A. Group Directors' Report for 2023", at: https://www.pkobp.pl/media_files/51b99b67-738e-47e2-84d9-0ed046ebc2d0.pdf

²² PKO BP, "Environmental Responsibility", at: <https://www.pkobp.pl/investor-relations/esg-at-pko-bank-polski-group/environmental-responsibility/>

²³ Ibid.

subsequently set a path for a science-based decarbonization trajectory.²⁴ To endorse this initiative, in 2023, PKO BP joined the Partnership for Carbon Accounting Financials (PCAF),²⁵ which has developed a global standard for calculating and reporting greenhouse gas emissions for the financial sector. The Bank has set decarbonization targets for its scope 3 GHG emissions related to financing carbon intensive industries, including energy, fossil fuel combustion, automotive, iron and steel, metal ore production and chemicals, and publicly disclosed them in 2024.²⁶

Sustainalytics is of the opinion that the PKO Group Green Bond Framework is aligned with the Bank's overall sustainability strategy and initiatives and will further the Bank's action on its key environmental priorities. Sustainalytics notes PKO Group's intention to publicly disclose the targets for its scope 3 GHG emissions and encourages the Bank to publicly report on its progress.

Approach to managing environmental and social risks associated with the projects

Sustainalytics recognizes that the proceeds from the instruments issued under the Framework will be directed towards eligible projects that are expected to have positive environmental or social impacts. However, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Sustainalytics acknowledges that PKO Group plays a limited role in the development of the specific projects that it finances, however, by offering lending and financial services, it is exposed to risks associated with the customers or projects that it may finance. Some key environmental and social risks possibly associated with the eligible projects may include issues involving: i) land use and biodiversity loss associated with large-scale infrastructure development; ii) emissions, effluents and waste generated in construction; iii) occupational health and safety (OHS); iv) community relations; and v) business ethics and predatory lending. Sustainalytics acknowledges that PKO Group plays a limited role in the development of the specific projects that it finances, however, by offering lending and financial services, it is exposed to risks associated with the customers or projects that it may finance.

Sustainalytics is of the opinion that PKO Group is able to manage and mitigate potential risks through implementation of the following:

- To address overall environmental and social risks in financed projects, PKO Group incorporates an environmental and social assessment in its lending process, in line with the guidelines on loan origination and monitoring issued by the European Banking Authority.^{27,28} Additionally, PKO Group conducts an ESG assessment for each loan transaction, evaluating both the impact of the loan on the ESG issues and the effect of the ESG factors on the loan. This includes considerations on climate change risk, human capital, health and safety, and governance factors.²⁹ Through this process, PKO Group estimates and manages the ESG risk of each transaction, which is classified with a four-tier rating system ranging from positive to negative.³⁰
- Regarding risks related to land use and biodiversity loss, Sustainalytics notes that projects financed under the Framework are expected to comply with Directive 2014/52/EU, which requires projects that are likely to have significant environmental effects to be adequately assessed before approval.³¹ The directive also mandates measures to avoid, prevent, reduce and offset adverse effects on the environment, particularly on species and habitats. For projects requiring significant land use, the directive requires land use-related impacts to be identified, described and assessed through an environmental impact assessment. Large-scale projects must also limit impacts on land and soil, including organic matter, erosion, compaction and sealing.

²⁴ PKO Bank Polski, "Sprawozdanie Zarządu z działalności Grupy Kapitałowej PKO Banku Polskiego S.A. za 2023 rok", at: https://www.pkobp.pl/media_files/1b4f0dce-e25c-4c40-8804-20526814749e.xhtml

²⁵ Partnership for Carbon Accounting Financials, "About PCAF", at: <https://carbonaccountingfinancials.com/about>

²⁶ PKO Bank Polski, "Adekwatność kapitałowa oraz inne informacje Grupy Kapitałowej Powszechnej Kasy Oszczędności Banku Polskiego Spółki Akcyjnej podlegające ogłoszeniu według stanu na 30 czerwca 2024 roku", at: https://www.pkobp.pl/media_files/683cb776-f3dd-416e-b766-2eedc51ff90b.pdf

²⁷ EBA, "Guidelines on loan origination and monitoring", at: <https://www.eba.europa.eu/activities/single-rulebook/regulatory-activities/credit-risk/guidelines-loan-origination-and-monitoring>

²⁸ PKO Bank Polski, "The PKO Bank Polski S.A. Group Directors' Report for 2023", at: https://www.pkobp.pl/media_files/51b99b67-738e-47e2-84d9-0ed046ebc2d0.pdf

²⁹ Ibid.

³⁰ Ibid.

³¹ European Parliament, "Directive 2014/52/EU of the European Parliament and of the Council", (2014), at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0052>

- With regard to emissions, effluents and waste generated in construction, the EU regulation on construction and demolition waste requires companies in the EU to manage waste without endangering human health or causing harm to the environment.³²
- To manage occupational health and safety risk, PKO Group has confirmed that all projects financed under the Framework will comply with the Polish Construction Law 1994, requiring a safety and health plan to be in place and the presence of a responsible construction manager for health and safety measures on site.³³ Entities of PKO Group located outside of Poland will comply with country-specific OHS regulations.
- With respect to community relations, PKO Group has confirmed to Sustainalytics that all projects financed under the Framework will comply with the 'Act on Providing Information on the Environment and Environmental Protection, Public Participation in Environmental Protection and on Environmental Impact Assessment', and the Polish Spatial Planning and Development Act. The acts mandate public involvement in the environmental decision-making processes and spatial planning processes, allowing for consideration of stakeholders' views.^{34,35}
- Regarding risks related to business ethics, the Bank established internal rules on corruption, in alignment with the Code of Banking Ethics from the Polish Bank association.³⁶ The Bank's internal processes are regulated by its Code of Ethics and the Compliance Risk Management principles.^{37,38} These principles guide PKO Group's actions in relation to information security, prevention of conflicts of interest, and bribery.³⁹ Additionally, the Bank has in place a whistleblowing system for employees to report misconduct anonymously and also conducts training on counteracting corrupt practices and reporting breaches.⁴⁰ Furthermore, the Bank established an Anti-Money Laundering and Countering the Financing of Terrorism Policy, under which it applies financial security measures before establishing a business relationship with a customer.⁴¹ Regarding predatory lending risk, the Bank has communicated to Sustainalytics that it follows the following regulations: i) the EU Credit Directive (2008/48/EC) on consumer protection and transparency of transactions;⁴² and the ii) Polish Banking Act (1997),⁴³ which require that banks understand the borrowers' ability to repay.

Additionally, Sustainalytics' research has identified that PKO BP is exposed to legal risks stemming from the ongoing court proceedings related to CHF mortgage loans in retail business.⁴⁴ Sustainalytics acknowledges that the controversy pertains to legacy issues which will not directly impact eligible projects that may be financed. Sustainalytics further notes that the bank has engaged in mitigation activities by seeking amicable out-of-court settlements with clients affected by CHF mortgages, writing off affected mortgages and booking legal provisions for the costs of handling the issue.⁴⁵

Based on these policies, standards and assessments, Sustainalytics is of the opinion that PKO Group has implemented adequate measures and is well positioned to manage and mitigate environmental and social risks commonly associated with the eligible categories.

³² European Commission, "Directive 2008/98/EC on waste", (2008), at: <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32008L0098&from=EN>

³³ Global-Regulation, "The Act Of 7 July 1994, Construction Law", at: <https://www.global-regulation.com/translation/poland/2986349/the-act-of-7-july-1994%252c-construction-law.html>

³⁴ UNEP-LEAP, "Act on providing information on the environment and environmental protection, public participation in environmental protection and on environmental impact assessment.". (2008), at: <https://leap.unep.org/en/countries/pl/national-legislation/act-providing-information-environment-and-environmental-0>

³⁵ ISAP, "Dz.U. 2003 nr 80 poz. 717", at: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20030800717>

³⁶ Polish Bank association, "Kodeksy etyki bankowej (zasady dobrej praktyki bankowej)", (2013), at: https://zbp.pl/getmedia/c54fc557-0e78-48e2-a92b-1a601685dbc7/KEB_final_WZ

³⁷ PKO Bank Polski, "Obszar społeczny", at: <https://www.pkobp.pl/relacje-inwestorskie/esg-w-grupie-pko-banku-polskiego/obszar-spoeczny/>

³⁸ PKO Bank Polski, "Polityki i zasady", at: <https://www.pkobp.pl/relacje-inwestorskie/esg-w-grupie-pko-banku-polskiego/polityki-i-zasady/>

³⁹ Ibid.

⁴⁰ PKO Bank Polski, "Obszar społeczny", at: <https://www.pkobp.pl/relacje-inwestorskie/esg-w-grupie-pko-banku-polskiego/obszar-spoeczny/>

⁴¹ PKO Bank Polski, "Polityki i zasady", at: <https://www.pkobp.pl/relacje-inwestorskie/esg-w-grupie-pko-banku-polskiego/polityki-i-zasady/>

⁴² European Commission, "A bit more time would help me, as the other projects required capacity today", at: <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0347>

⁴³ Government of Poland, "The Act Of 29 August 1997 Bank Law", at: <https://www.global-regulation.com/translation/poland/3353756/the-act-of-29-august-1997-bank-law.html>

⁴⁴ In the 2000s, Polish borrowers took out Swiss franc denominated mortgages to take advantage of low-interest rates in Switzerland. However, the rise in value of Swiss franc in 2015 resulted in higher repayments due to questioned indexation clauses in contracts which in turn led to legal disputes with Polish banks, including PKO BP.

⁴⁵ PKO Bank Polski S.A. Group Directors' Report for 2023", at: https://www.pkobp.pl/media_files/51b99b67-738e-47e2-84d9-0ed046ebc2d0.pdf

Section 3: Impact of Use of Proceeds

The use of proceeds categories are aligned with those recognized by the GBP and GLP. Sustainalytics has focused below on where the impact is specifically relevant in the local context.

Importance of financing green buildings in Poland

The buildings sector is the largest energy-consuming sector in the EU, responsible for approximately 40% of the total energy consumption and one-third of total GHG emissions in the 27-country union.⁴⁶ These emissions primarily result from the direct use of fossil fuels for heating and colling and the generation of electricity for building operations.⁴⁷ To achieve its goal of reducing overall GHG emissions by 55% by 2030 compared to 1990 levels,⁴⁸ the EU must decrease emissions from its building stock by 60%.⁴⁹

In Poland, the fourth-largest emitter of GHG emissions in the EU,⁵⁰ the buildings sector accounts for 13.8% of the country's total energy-related CO₂ emissions.⁵¹ The residential sector in Poland is particularly reliant on solid fuels, especially coal, which is used extensively for electricity generation and space heating, more so than in any other EU country.⁵² Poland is committed to achieving a 30% reduction in GHG emissions by 2030 compared to 1990 levels.⁵³ To meet this goal, the country recognizes the importance of the buildings sector in decarbonization and is implementing the following measures: i) increasing the adoption of renewable energy sources;⁵⁴ ii) reducing primary energy consumption;⁵⁵ iii) improving energy efficiency;⁵⁶ and iv) accelerating residential renovations.⁵⁷ In support of these efforts, Poland earmarked EUR 3.5 billion to energy efficiency renovation measures in buildings as part of its National Resilience and Recovery Plan.⁵⁸

Based on the above, Sustainalytics is of the opinion that PKO Group's financing of green buildings is expected to contribute to reducing GHG emissions and the energy consumption of buildings in Poland.

Contribution to SDGs

The Sustainable Development Goals were adopted in September 2015 by the United Nations General Assembly and form part of an agenda for achieving sustainable development by 2030. The instruments issued under the PKO Group Green Bond Framework are expected to help advance the following SDGs and targets:

Use of Proceeds Category	SDG	SDG target
Financing Buildings	7. Affordable and clean energy	7.3 By 2030, double the global rate of improvement in energy efficiency
	9. Industry, Innovation and Infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all

⁴⁶ European Commission, "In focus: Energy efficient buildings", (2024), at: https://energy.ec.europa.eu/news/focus-energy-efficient-buildings-2024-04-16_en

⁴⁷ European Environment Agency, "Greenhouse gas emissions from energy use in buildings in Europe", (2023), at: <https://www.eea.europa.eu/en/analysis/indicators/greenhouse-gas-emissions-from-energy?activeAccordion=546a7c35-9188-4d23-94ee-005d97c26f2b>

⁴⁸ European Environment Agency, "2030 Climate Target Plan", at: <https://www.eea.europa.eu/policy-documents/2030-climate-target-plan>

⁴⁹ European Commission, "A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives", (2020), at: https://eur-lex.europa.eu/resource.html?uri=cellar:0638aa1d-0f02-11eb-bc07-01aa75ed71a1.0003.02/DOC_1&format=PDF

⁵⁰ European Parliament, "Climate change in Europe: facts and figures", (2023), at: <https://www.europarl.europa.eu/topics/en/article/20180703STO07123/climate-change-in-europe-facts-and-figures>

⁵¹ IEA, "Poland 2022 Energy Policy Review", (2022), at: <https://iea.blob.core.windows.net/assets/b9ea5a7d-3e41-4318-a69e-f7d456ebb118/Poland2022.pdf>

⁵² Attia, S. et al (2022), "Energy efficiency in the polish residential building stock: A literature review", Journal of Building Engineering, at: <https://orbi.uliege.be/bitstream/2268/264395/1/Energy%20efficiency%20in%20the%20polish%20residential%20building%20stock.pdf>

⁵³ Ibid.

⁵⁴ IEA, "Poland 2022 Energy Policy Review", (2022), at: <https://iea.blob.core.windows.net/assets/b9ea5a7d-3e41-4318-a69e-f7d456ebb118/Poland2022.pdf>

⁵⁵ Ministry of Climate and Environment Republic of Poland, "Energy Policy of Poland until 2040 (EPP2040)", at: <https://www.gov.pl/web/climate/energy-policy-of-poland-until-2040-epp2040>

⁵⁶ European Commission, "Poland's recovery and resilience plan", at: https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility/country-pages/polands-recovery-and-resilience-plan_en

⁵⁷ Ibid.

⁵⁸ Ibid.

		countries taking action in accordance with their respective capabilities
Clean Transportation	11. Sustainable Cities and Communities	11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Sustainable Water Supply Management	6. Clean Water and Sanitation	6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
Sustainable Wastewater Management	6. Clean Water and Sanitation	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
Sustainable Waste Management	12. Responsible consumption and production	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

Conclusion

PKO Group has developed the PKO Group Green Bond Framework under which it may issue green bonds and use the proceeds to finance existing or future loans that are expected to contribute to decarbonizing the building stock and to reducing GHG emissions in Poland and other countries in Europe. Sustainalytics considers that the eligible projects are expected to provide positive environmental impacts.

The PKO Group Green Bond Framework outlines a process for tracking, allocation and management of proceeds, and makes commitments for reporting on allocation and impact. Sustainalytics considers that the PKO Group Green Bond Framework is aligned with the overall sustainability strategy of PKO Group and that the use of proceeds will contribute to the advancement of the UN Sustainable Development Goals 6, 7, 9, 11 and 12. Additionally, Sustainalytics is of the opinion that PKO Group has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects.

Based on the above, Sustainalytics is confident that PKO Bank Polski Group is well positioned to issue green bonds and that the PKO Group Green Bond Framework is robust, transparent and in alignment with the four core components of the Green Bond Principles 2021.

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