Raiffeisen Bank

Raiffeisenbank Impact and Allocation Report 2023

Green Bond

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Introduction

Introduction

In 2021, Raiffeisenbank Czech Republic (RBCZ) launched a groundbreaking green bond issuance program aimed at amplifying the impact of sustainable lending in the Czech Republic. The initiative, with a total nominal volume of € 350 million, marked the debut of a green bond issuance program introduced by a financial institution within the Czech Republic.

Our Green Bond Framework has been strategically crafted as an integral part of our broader group sustainability strategy with the aim of increasing the funding of projects with a positive environmental impact. The assets pertaining to this framework are aligned with the Green Bond Principles[1] as set forth by the International Capital Market Association (ICMA). The scope of eligible green categories encompasses green buildings, renewable energy sources, initiatives improving energy efficiency, clean transportation solutions & infrastructure, along with sustainable agriculture & forestry.

Important facts at a glance:

As at 31 December 2023

- **€ 350 million** Green Bonds outstanding[2]
- **€ 374.5 million** Green Loan Portfolio[3]
- **€ 252.37 million** Green Buildings
- **€ 54.28 million** Clean Transportation
- **€ 56.02 million** Renewable Energy
- **€ 11.42 million** Sustainable Forestry and Agriculture
- **€ 0.41 million** Energy Efficiency

160 510 metric tons of CO_2 saved per annum

- equals to **428 metric tons of CO_2** avoided per annum per € 1 million investment

[1] Green-Bond-Principles-June-2021-140621.pdf (icmagroup.org)
[2] Gross amount
[3] Currently, the bond is over-allocated due to a reserve created in case of unexpected repayment and regular repayment of Eligible Green Loans.

Foreword by Board Member

In the past year, we further incorporated the topic of sustainability into our daily business and long-term strategy. At the same time, we are increasing our efforts to raise awareness of the importance of sustainability among our corporate and retail clients.

In January, RBCZ issued its second bond, one of the largest sustainable bond issues by a financial institution in Central and Eastern Europe with a volume of € 500 million.

To us, sustainability goes beyond general declarations, as the topic is directly reflected in practical steps. Last May, the Raiffeisenbank Czech Republic Board of Directors approved the Sustainability Strategy, which summarizes the bank's approach to responsible banking and defines the goals (KPIs) that we strive to achieve. These goals are based on three pillars: ESG advisory and sustainable finance, Environmental and social responsibility and Responsible governance and management.

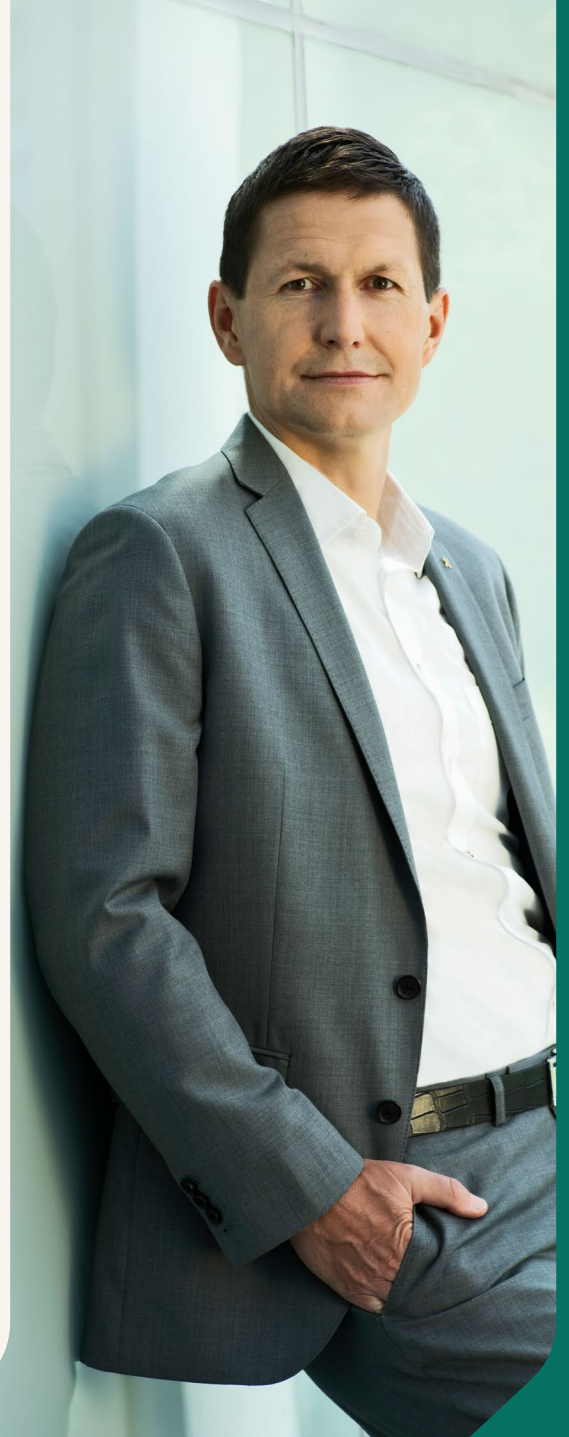
As a result, in August, we passed the international ISO 14001 Environmental Management certification. This certificate confirms compliance with strict environmental rules in terms of our own operations and management.

We do not only address sustainability within our institution, but we actively approach the education and cultivation of our business environment. This includes participation in expert working groups of the Czech Banking Association and the introduction of a common ESG banking questionnaire for corporate clients.

The questionnaire simplifies reporting for companies, where they complete just one form instead of having to draft multiple versions for different financial institutions.

We maintain our cooperation and support of the Climate & Sustainable Leaders platform, which aims to motivate key companies in the Czech Republic to reduce CO_2 production and provides a unique Carbon tracker tool.

We stand fully focused on the topic of sustainability, yet we are aware that we are still rather at the beginning of a long journey towards a sustainable society. We deem it very important to accompany our clients, employees and ultimately the society on this path with reasonable advice, high quality products and services and we want to give a lead by maintaining and improving our own environmental management certification. The transition towards a sustainable society is a pressing agenda; at the same time, we see a need for gradual changes to give people and companies a chance to learn, adjust and buy in line with our joint responsibility to preserve our planet for the next generations.



František Ježek
Member of the Board / April 2024

Raiffeisenbank's Green Journey in 2023

1 In May, the Board of Directors of the bank approved its **first Sustainability Strategy**, which summarizes the bank's approach to responsible banking and defines our goals & KPIs.

2 We won the prestigious award for **Responsible Bank of the Year 2023** at the Mastercard Bank of the Year ceremony.

3 We received the prestigious **TOP Responsible Company award in the Diversity category** for our project "Flexibility at work, even at branches? Certainly.".

4 We are the issuer of one of the **largest sustainable bond programs** in Central and Eastern Europe.

5 In cooperation with other major Czech banks, we launched a platform for a joint **banking questionnaire** under the auspices of CBA. The platform is now in full operation.

6 We actively participate in **sustainability events**, such as conferences and workshops, either as event partners or as speakers in lectures and panel discussions. This helps us stay up to date with the latest sustainability trends and communicate the progress we have made.

7 In August, we passed the **ISO 14001:2015 Environmental Management** certification, an esteemed endorsement of adherence to stringent environmental norms within our operations and management.

Green Bond Portfolio Case Study

Otročín Farm, a beacon of environmental consciousness and sustainable practices, constitutes approximately 25% of the Czech organic milk industry. Situated within the protected landscapes of Slavkov Forest in Western Bohemia, this 1700-hectare farm aims to achieve resource independence by 2025.

The farm operates with a profound commitment to ethical animal husbandry and environmental safeguarding. Its animal production – encompassing cattle farming of ČESTR and Charollais breeds – is intricately tied to crop production, with a focus on cultivating cereals, legumes, and essential animal feed. A strict no-herbicides, no-pesticides, and no-artificial fertilizers policy governs the care given to soil and plants. The cattle enjoy the luxury of constant pasture access and free-range movement.

In addition to its sustainable farming and organic crop cultivation, the farm also applies corporate social responsibility in practice. It invests a part of its profits back into the landscape by restoring old ponds, damming ponds, preserving sacred structures, planting tree-lined avenues, and caring for the quality of the region's abundant underground mineral waters.

Otročín Farm perceives social responsibility as a long-term sustainable competitive edge, aligned with its strategic goal – to become a European leader in organic milk production.

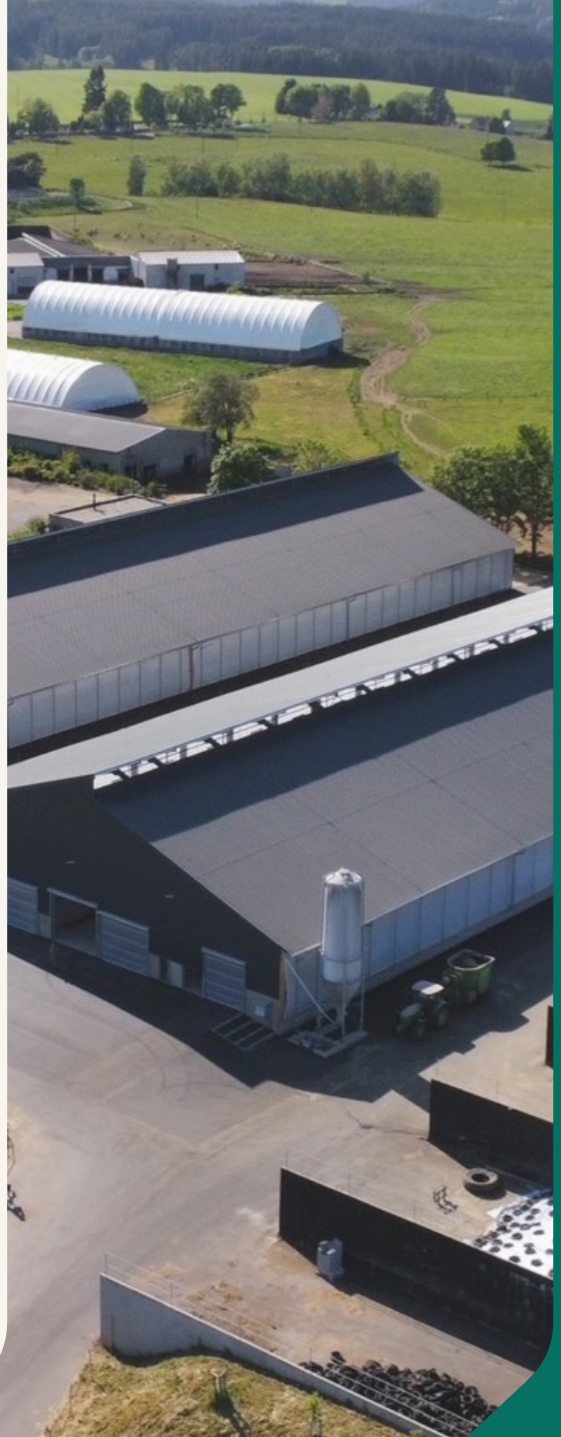
This ambitious objective transcends mere sustainable values. Leadership, in this context, signifies the ability to adopt smart innovations, modern technologies, and forward-thinking practices that complement organic farming methods. To illustrate, this means:

- Utilizing sensors to monitor the health, condition, and reproduction of dairy cows, thus reducing the need for preventive medicinal or hormonal treatments
- Equipping tractors with navigation systems and a work-performed database
- Deploying field laboratories and smart applications for accurate and efficient fertilization
- Upholding organic farming principles, such as soil fertilization using green manure mixtures, catch crops, or forage crops with multi-year soil rest periods
- Implementing feed machines for calves using exclusively native cow milk

Raiffeisenbank is a staunch supporter of Otročín Farm's mission to emerge as a leading organic milk producer in Europe, especially in its technological advancement. Hence, RB has provided the company with an investment financing of 81 million CZK for the purchase of milking robot technology and the construction of a modern barn. The barn, enabling free cow movement and unrestricted access to pastures, marks a revolutionary transformation at Otročín Farm. The cows set their daily rhythm, enjoy absolute freedom, and unlock their maximum potential, resulting in healthy, content animals.

Climate change is a pressing reality – in 2020, the EU agricultural sector contributed 383 million tons of carbon dioxide equivalent (Mt CO_2 eq.) of greenhouse gases, representing 11% of the total greenhouse gas emissions in the European Union, surpassing the OECD average of 10%.

Sustainable agriculture is an ecological methodology that curtails reliance on finite natural resources. Its considerate farming practices, such as crop rotation, intercropping, and companion planting, help preserve soil health, maintain water quality, and eliminate the need for detrimental practices.



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Independent Limited Assurance

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Independent limited assurance report (ISAE 3000 (Revised))

We have been requested to conduct a limited assurance engagement on the Allocation report forming part of the Impact and Allocation Report on the use of proceeds from issuance of of the Green Bond ISIN XS2348241048 (the "Green Bond Report") (the Allocation report forming part of the Green Bond Report hereinafter as the "Allocation Report") prepared by Raiffeisenbank a.s. ("Client") for the period from 1 January 2023 to 31 December 2023 in accordance with provisions of the Green Bond Framework issued by the Client in May 2021 (the "Framework").

Responsibilities of the client

The Client is responsible for the preparation and presentation of the Allocation Report in accordance with the Framework.

In preparing the Allocation Report, the board of directors of the Client used Client's self-developed Framework.

This responsibility of the board of directors of the Client includes the selection and application of appropriate methods for preparing the Allocation Report as well as making assumptions and estimates related to individual disclosures, which are reasonable in the circumstances. In addition, the board of directors is responsible for such internal control they have determined necessary to enable the preparation of the Allocation Report that is free from material misstatements, whether intentional or unintentional.

Responsibilities of the practitioner

Our engagement has been conducted in accordance with the International Standard on Assurance Engagements 3000 (Revised) applicable to Assurance Engagements Other Than Audits or Reviews of Historical Financial Information (ISAE 3000 (Revised)) established by the International Auditing and Assurance Standards Board ("IAASB"). In accordance with this standard, we have planned and performed our engagement to obtain a limited assurance regarding the subject matter of the engagement.

We applied International Standard on Quality Management 1, Quality management for firms that perform audits and review of historical financial information, and other assurance and related services engagements ("ISQM1"), and accordingly maintain a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We complied with the applicable independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (the "Code"). The Code is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

The scope of our work

The scope of our work covered, among other, the following:

- Inspection of the respective sections of the Framework and respective Green Bond Prospectus, particularly the sections related to total Green Bond proceeds and its use.
- Conducting interviews with relevant Client's employees that participated in the preparation of the Allocation Report about the process of preparation, the measures on hand and precautionary measures (system) for the preparation of the Allocation Report.
- Understanding of the process for evaluation and selection of the eligible projects, which might be financed by the Green Bond proceeds, and verify whether this process includes the eligibility criteria set out in the Framework. The eligible project, which might be financed by the Green Bond proceeds, must be in line with the Framework.
- Inspection of the description of the projects financed and check project-related materials to determine eligibility in comparison with the Framework to assess whether the Green Bond proceeds have been allocated in accordance with the Framework on sample basis.
- Evaluation, on sample basis, that the Green Bond proceeds have been used in line with the rules to (re)finance relevant project expenditures and are monitored in line with the rules specified in the Framework.
- Verification that the initial balance of Green Bond proceeds corresponds to the proceeds as per the Green Bond Prospectus net of costs for issuance of the Green Bond.
- Reconciliation of the disbursements from the Green Bond proceeds to the reported allocated proceeds.

In a limited assurance engagement, the procedures performed vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

The procedures performed do not constitute an audit according to the International Standards on Auditing, nor an examination of the effectiveness of the Company's internal control systems, or an examination of compliance with laws, regulations, or other matters. Accordingly, our performance of the procedures does not result in the expression of an opinion, or any other form of assurance on the Company's internal control systems or its compliance with laws, regulations, or other matters.

The assurance provided by our procedures should therefore be considered at the light of these limitations on the nature and extent of evidence-gathering procedures performed.

We believe that our evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Inherent limitations

There are no globally recognized mandatory practices for evaluating and measuring the information disclosed in the Allocation Report. The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, evaluation and measurement techniques that can affect comparability between entities and over time. The basis for reported allocation of Bond proceeds may differ between different reporting frameworks, including whether proceeds may be allocated to existing projects or only to new projects, and the basis on which eligibility of projects is determined. Therefore, Client´s reported allocation of Bond proceeds and our assurance thereon must be read and understood in conjunction with the Reporting Criteria defined in the Framework.

In addition, our limited assurance procedures did not address, among other, the following issues related to Impact report as of 31 December 2023:

- Assessing the impact indicators of the green assets:
  - CO_2 savings per year in metric tons
  - CO_2 savings in %
- Assessment of underlying assumptions in the models used for calculations by the Client
- Reconciliation of disclosures within Client's Green bond Impact report to underlying accounting and management data

Conclusion

Based on the procedures performed and the evidence obtained, nothing came to our attention that causes us to believe that the Allocation Report for the period from 1 January 2023 to 31 December 2023 has not been prepared and presented, in all material respects, according to section(s) 2.1-2.4 of the Green Bond Framework issued by the Client in May 2021.

Purpose of the report and liability

We issue this report on the basis of the engagement agreed with the Client. The limited assurance engagement has been performed for purposes of the Client. and the report is solely intended to inform the Client on the results of this limited assurance engagement.

This report is therefore not intended to provide third parties with support in making any investment or financial decisions. Our responsibility with respect to our Client, is governed by the Engagement Letter dated 22 March 2022 as amended by Amendment No.1 to the Engagement Letter dated 5 March 2024. We do not assume any responsibility to any third party.

In Prague on 14 June 2024

Audit firm:

Deloitte Audit s.r.o.

Deloitte

Responsible practitioner:

Petr Pruner
on the basis of a power of attorney

Foreword by Sustainability Officer

Sustainability has invariably remained a fundamental pillar of Raiffeisenbank Group´s ethos, contributing to our success. For the past 130 years, we have consistently harmonized financial prosperity with achievements in social and environmental stewardship.

Our aim as an institution is to simplify life for our customers, particularly in the realm of ESG (Environmental, Social, Governance), helping to facilitate their journey towards sustainability. To be a trustworthy and transparent partner on this journey, the bank must exemplify this commitment itself. As such, all three facets of sustainability – environmental accountability, social responsibility and equitable governance – are seamlessly integrated into our daily operations at Raiffeisenbank.

In May 2023, the bank's Board of Directors ratified its Sustainability Strategy. The Strategy outlines the bank's methodological approach to the subject of ESG. The vision driving this Strategy is to **alleviate our clients' pathway to sustainability** with an emphasis put on the three main pillars:

1) ESG Advisory and Sustainable Finance – sustainability pillar with a client-centric focus

2) Environmental and Social Responsibility – sustainability pillar focused on environment and society

3) Responsible Governance and Management – pillar geared towards the bank employees

We are proud to share a selection of our notable ESG achievements, which culminated in us being named the Top Responsible Bank 2023 in the Mastercard contest:

- The bank achieved the ISO 14001 certification representing excellence in environmental management
- We successfully curtailed our paper consumption by 23%, water usage by 10% and waste production by 14% compared to the baseline year 2020
- Our newly introduced 2023 benefit – Volunteer Day – was utilized by a total of 381 employees, cumulating in 2 579 hours dedicated to volunteer activities
- Bank was honoured with 9 esteemed awards including Best Bank, Most Customer Friendly Bank, Top Responsible Bank, Diversity Award, Award for supporting education and digital solutions, among others

Michal Putna
Sustainability Officer / April 2024

Key Data

RBCZ's Green Bond program

ISIN	Currency	Issuance date	Maturity date	Nominal as at 31. 12. 2022
XS2348241048	EUR	9. 6. 2021	9. 6. 2028	350 mn
Total RBCZ issuances (mn)				350 mn

In 2021, RBCZ issued its first Green Bond sold to both institutional and private investors.
This report relates to the Green Bond outstanding as at the end of December 2023.

Our current Green Loan Portfolio contributes to the following SDGs:

Eligible category*	7 AFFORDABLE AND CLEAN ENERGY	15 LIFE ON LAND	11 SUSTAINABLE CITIES AND COMMUNITIES	13 CLIMATE ACTION	2 ZERO HUNGER
Green Buildings	€ 252.37 mn		€ 252.37 mn		
Energy Efficiency	€ 0.41 mn				
Renewable Energy	€ 56.02 mn			€ 56.02 mn	
Sustainable Forestry and Agriculture		€ 7.56 mn			€ 3.86 mn
Clean Transportation			€ 54.28 mn		
Total	**€ 308.8 mn**	**€ 7.56 mn**	**€ 306.65 mn**	**€ 56.02 mn**	**€ 3.86 mn**

* Partial eligibility not accepted

RBCZ's green bond framework supports the achievement of the UN Sustainable Development Goals (SDGs), with a particular focus on the following SDGs:

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Allocation Report

Allocation Report as at 31. 12. 2023

The assessment and selection procedure for Eligible Green Loans is a vital mechanism in ensuring that the amount equivalent to net proceeds from Green Bonds is dedicated to assets and activities compliant with the Framework criteria. In the category of green buildings, a lookback period of 3 years is taken into consideration. However, no such lookback assessment is currently implemented for the other categories.

All prospective Eligible Green Loans are subject to Raiffeisenbank's standard credit process, consistent with regular business operations. Only those loans which have successfully navigated this process qualify for consideration in terms of Green Bond eligibility. The responsibility for ensuring that allocations are directed towards Eligible Green Loans as detailed in the use of proceeds section above, as well as for overseeing the entire issuance process, falls within the purview of the RBCZ Green Bond Committee ("GBC"), which was replaced by the Social and Green Bond Committee ("SGBC").

By the end of 2023, the entire Green Loan portfolio reached a sum total of € 375 million*. All projects received the GBC seal of approval and were incorporated into the Green Bond Portfolio in 2023.

*Currently, the bond is over-allocated due to a reserve created in case of unexpected repayment and regular repayment of Eligible Green Loans.

Green Buildings

€ 252.37 million (67.39%)
- 58 projects built, one of them is still under construction
- 26 commercial buildings
- 29 retail buildings
- 3 residential buildings
- 57 projects are located in the Czech Republic
- 1 project is located in Slovakia

Sustainable Agriculture and Forestry

€ 11.41 million (3.05%)
- 3 sustainable forestry projects focused on production of tree seedlings
- 2 farms with sustainable agriculture practices
- All projects are located in the Czech Republic

Clean Transportation

€ 54.28 million (14.49%)
- 5 public electric railway transport projects
- Electric cars portfolio
- Electric forklifts portfolio
- 8 bike sharing projects
- All projects are located in the Czech Republic

Renewable Energy

€ 56.02 million (14.96%)
- 44 photovoltaic projects
- 2 biomass energy projects
- 2 hydropower projects
- 47 projects are located in the Czech Republic
- 1 project is located in Romania

Energy Efficiency

€ 0.41 million (0.11%)
- 5 energy saving projects
- All projects are located in the Czech Republic

Green bond portfolio allocation

Raiffeisenbank Czech Republic is committed to allocate the full amount of proceeds from the Green Bond issuance by 1 June 2024.
Currently, the bond is over-allocated due to a reserve created in case of unexpected repayment and regular repayment of Eligible Green Loans.

Asset category		Allocated amount in EUR	Projects ***	% of Allocated amount in EUR	New financing/ Refinancing**
Green Building	Commercial Buildings	220 028 669.80	26	58.75%	89%/11%
	Retail Buildings	3 277 154.41	29	0.88%	89%/11%
	Residential Buildings	29 067 674.41	3	7.76%	94%/6%
	Total	252 373 498.62	58	67.39%	90%/10%
Sustainable Agriculture and Forestry	Sustainable Agriculture	3 860 572.86	2	1.03%	100%/0%
	Sustainable Forestry	7 554 523.68	3	2.02%	4%/96%
	Total	11 415 096.54	5	3.05%	37%/63%
Clean Transportation	Bike Sharing	2 797 844.18	8	0.75%	74%/26%
	Electric Forklifts*	21 968 106.30	1 047	5.87%	100%/0%
	Electric Vehicles*	10 439 574.65	291	2.79%	100%/0%
	Public Rail Transport	19 074 580.68	5	5.09%	67%/33%
	Total	54 280 105.80	1 351	14.49%	87%/13%
Renewable Energy	Photovoltaics	45 087 041.47	44	12.04%	34%/66%
	Energy from Biomass	4 910 967.82	2	1.31%	33%/67%
	Hydropower	6 017 584.22	2	1.61%	0%/100%
	Total	56 015 593.51	48	14.96%	30%/70%
Energy Efficiency	Energy Efficiency	409 664.42	5	0.11%	100%/0%
Total allocated		**374 493 958.89**	**1 467**	100.00%	

* The number represents pieces of equipment, not number of projects. Electric vehicles and electric forklifts are perceived as one portfolio, therefore accounted as one project.
** The ratio is defined based on the financed volume, new financing means loans originated after the emission of the bond.
*** The number represents green eligible loans.

Portfolio maturity profile

The volumes represent the outstanding balance as at 31 December 2023 with a maturity profile representing the final maturity of the proceeds:

2024–2025: **€ 67 million**

2026–2028: **€ 246.9 million**

After 2028: **€ 60.6 million**

Impact Report as at 31. 12. 2023

The creation of an impact report in conformity with the Green Bond Framework necessitates the bank's management to exercise judgment and engage in estimations and assumptions that will ultimately shape the reported amounts of CO_2 emissions avoided (saved) over the course of the reporting period.

The bedrock for these estimates is the most reliable information available to the management at the time of reporting. However, these estimates embody a degree of inherent uncertainty due to a multitude of factors such as limited data availability, lags in data retrieval (e.g. the emission factor for the Czech electricity network issued by the Ministry of Industry and Trade is typically a year behind), as well as the enormity of highly specific external conditions, such as the amount of CO_2 offset by a tree, which is subject to a host of site-specific aspects including tree species, geographical location, growth conditions, water and sunlight availability, local climate, soil nutrients and more.

The management undertakes a careful review and assessment of various available data sets comparing a range of estimates to select the most appropriate one for calculating the reported amounts of CO_2 emissions. In cases where multiple estimates are available, the management opts for the conservative approach, choosing the lower end of the estimate range. The impact assessment of stated projects, which originated within the reporting year, is calculated based on time proportionality. For more in-depth information, please refer to the "Carbon Impact Methodology" sections.

Projects are eligible for inclusion in the impact report once they have been approved and qualified as eligible, or once the green bond proceeds have been designated for eligible disbursements.

In 2023, we were instrumental in mitigating approximately **160 510*** tons of CO_2 emissions through our Green Loan portfolio funded by the Green Bonds. The largest contribution to this CO_2 avoidance can be attributed to the financing of Sustainable Forestry projects.

Asset category	CO_2 savings per year in metric tons	CO_2 savings in %	Allocated amount in %
Green Buildings	30 556	19.04%	67.39%
Clean Transportation	11 762	7.33%	14.49%
Sustainable Forestry and Agriculture	97 421	60.69%	3.05%
Renewable Energy	20 641	12.86%	14.96%
Energy Efficiency	127	0.08%	0.11%
Total RBCZ Green Portfolio	**160 510**	**100.00%**	

160 510 metric tons of CO_2 annually saved with the green portfolio of € 375 million

*The impact is calculated on an over-allocated amount, the real impact is lower.

CO_2 Savings – RBCZ Green Portfolio

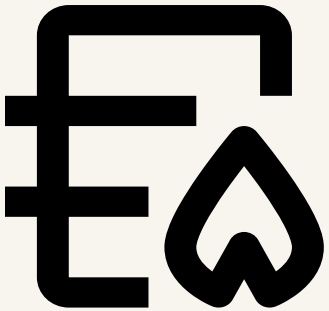
Annual CO_2 reduction per € 1 million invested: 428 metric tons, equivalent to annual greenhouse gas emissions from[4]

35,687
passenger vehicles driven for one year

or

20,212
private homes

or



370,918
barrels of oil consumed

[4] Greenhouse Gas Equivalencies Calculator | US EPA

Green Buildings

The real estate properties included in our eligible green portfolio demonstrate substantially lower energy consumption compared to the national average level for properties in the Czech Republic. This results in an annual reduction in greenhouse gas emissions by 30 556 metric tons. Only finalized projects are considered when calculating CO_2 emissions avoidance.

Weighted average energy consumption of baseline portfolio	260 kWh/m²*year
Weighted average energy consumption of RBCZ green portfolio	82.4 kWh/m²*year
Weighted average energy savings per m² per year	19.54%
Total CO_2 savings	30 556 tons

Renewable Energy

RBCZ's portfolio of renewable energy predominantly comprises photovoltaic projects.

Given the Czech Republic´s considerable dependence on fossil fuels for its electricity mix, substantial investments are essential to bolster renewable energy initiatives. Our portfolio is designed to align with the official Czech government´s objective of elevating the prominence of renewable energy, thereby making it a more substantial contributor to the nation´s energy sources.

Installed capacity	49.98 MW
Czech Republic electricity emission factor	0.413 t CO_2/MWh
CO_2 savings per year	20 641 tons

Clean Transportation

RBCZ's clean transportation portfolio encompasses an array of funded initiatives. These projects principally aim to supplant transport models dependent on fossil fuels with vehicles that produce zero tailpipe emissions.

Public railway transport

Passengers transported	8 950 000
Average distance travelled per passenger in Czechia (km)	55
CO_2 savings per year	4 415 tons

Electric vehicles

Number of financed vehicles	291
Average distance per year (km)	20 000
CO_2 savings per year	960 tons

Electric forklifts

Number of financed forklifts	1047
Average hours in operation during year	800
CO_2 savings per year	6 312 tons

Bike sharing

Number of financed bikes	11 600
Average yearly distance per user (km)	82
CO_2 savings per year	74 tons

Sustainable Forestry and Agriculture

In this category, our portfolio contributes to CO_2 offsetting via the production of PEFC certified tree seedlings. Moreover, our investments in agricultural projects employing more efficient production methodologies than traditional ones aid in averting further CO_2 emissions.

Forestry

Seedlings produced	28 750 000
CO_2 offsets per tree	25 kg
CO_2 savings per year	97 031 tons*

Agriculture

Our portfolio inlcudes sustainable farms committed to cattle rearing and the sale of certified plant and animal products.

Area covered	3 500 ha
CO_2 offsets per ha	111.5 kg
CO_2 savings per year	390 tons

* The impact is recalculated proportionally because the firm is included in two bonds.

Carbon Impact Methodology

Sources used for the calculation

The data employed in our CO_2 calculation methodology is derived from a robust spectrum of sources. Consequently, we apply a uniform approach to each area, premised on the following methodology. If pertinent data fitting the given hierarchy's criteria is not found, we proceed to the next level.

The data used for the calculation undergoes a thorough review at each reporting interval to validate its accuracy and to determine the existence of more comprehensive and up-to-date information.

Our preference leans towards data that is up-to-date, specifically not exceeding 4 years. The location of data collection is also considered with preference towards data originating from the Czech Republic or its proximate countries/regions.

Comprehensive studies backed by verified sources are prioritized in our data sourcing.

Outlined below is the hierarchy used to guide our search for relevant data for our calculations, progressing from primary data and beyond.

1. Primary data from the client – verified by a third party
2. State institutions – Czech Statistical Office, Czech Ministries, DEFRA tables*
3. Scientific institutions - universities and other research entities focused on the Czech Republic
4. Relevant NGOs and multinational organisations – IPCC, EPA
5. Private entities

*DEFRA tables

The most comprehensive publicly available set of greenhouse gas conversion factors for calculating carbon emissions for different activities and processes is published and updated annually by the UK Department for Environment, Food and Rural Affairs (DEFRA). This set of factors is widely used by UK and international organisations when reporting greenhouse gas emissions. In the Czech Republic, this source of high-quality information is widely used by most local consultancies specialising in ESG and decarbonisation when calculating and reporting carbon footprints.

Scoring methodology

	Score 3	Score 2	Score 1
Technological representativeness	exactly known calculation methodology	methodology known, but sources derived	unknown/other
Temporal representativeness	no more than 4 years old	no more than 7 years old	older than 7 years
Geographical representativeness	Czech Republic	Europe (EU & UK)	rest of world
Completeness	direct data	at least 50% direct data	based on proxy
Reliability	measured from the source	well-documented assumption	other

The below table shows the scores awarded to particular data inputs.

To be fully transparent, we score the data used for the CO_2 emission avoidance calculation. The scoring logic is aligned with the GHG protocol corporate standard.

Score calculation example

Source score: Fuel emission factor – diesel			
Area	**Weight**	**Rating***	**Final score**
Technological representativeness	0.2	1	0.2
Temporal representativeness	0.2	2	0.4
Geographical representativeness	0.2	1	0.2
Completeness	0.2	1	0.2
Reliability	0.2	1	0.2
Final score			**1.2**

*Score ranges between 1 and 3, 3 being the best.

No source in the Czech Republic was found for the diesel emission factor. Thus, a US government website was chosen as the source. The relevant data originate from an official study. It was last updated in 2022 and refers to a 2010 study.

List of sources

Index	Category – data	Source name	Value	Reason	Link	Reviewed	Rating
1.	**Transport – Trains** Average emissions of a diesel train	DEFRA	0.00897 kg CO_2/km per passenger	In the Czech Republic, this source of high quality information is widely used by most Czech consultancies specialising in ESG and decarbonisation in the calculation and reporting of carbon footprints.	Greenhouse gas reporting: conversion factors 2023 – GOV.UK (www.gov.uk)	17. 1. 2024	2.6
2.	**Transport – Trains** Average distance traveled by 1 passenger	Sydos	56 km	Official transport statistics used. Data could not be provided by a client.	Quarterly summary of basic indicators (sydos.cz)	17. 1. 2024	2.4
3.	**Transport – Trains** Number of transported passengers in 2022	Client	8 950 000 passengers	Data provided by the client, considered as most relevant.	Credit analysis	10. 2. 2024	3
4.	**Transport – Cars** Fuel emission factor of average car	DEFRA	0.165 kg CO_2/km	In the Czech Republic, this source of high quality information is widely used by most Czech consultancies specialising in ESG and decarbonisation in the calculation and reporting of carbon footprints.	Greenhouse gas reporting: conversion factors 2023 – GOV.UK (www.gov.uk)	17. 1. 2024	2.6

Index	Category – data	Source name	Value	Reason	Link	Reviewed	Rating
5.	**Transport – Forklifts** Emission factor of diesel fuel	DEFRA	2.512063884 kg CO_2/km	In the Czech Republic, this source of high quality information is widely used by most Czech consultancies specialising in ESG and decarbonisation in the calculation and reporting of carbon footprints.	Greenhouse gas reporting: conversion factors 2023 - GOV.UK (www.gov.uk)	10. 3. 2024	2.6
6.	**Transport – Cars** Average mileage of a company car	Raiffeisen Leasing	20 000 km/year	Qualified estimate based on contracts.	rl.cz	28. 1. 2024	2.8
7.	**Transport – Bicycles/e-bikes**	Client	82 km/bike, 11 600 bikes financed	Number of bikes financed and average distance per year. Data from the client, considered as most relevant.	Data from the client	10. 2. 2024	3
8.	**Transport – Bicycles/e-bikes** Emission factor of public transport vehicles	DEFRA	0.10215 kg CO_2/km	In the Czech Republic, this source of high quality information is widely used by most Czech consultancies specialising in ESG and decarbonisation in the calculation and reporting of carbon footprints.	Home – Defra, UK	17. 1. 2024	2.8

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Index	Category – data	Source name	Value	Reason	Link	Reviewed	Rating
9.	**Transport – Forklifts** Average uses per year	Raiffeisen Leasing	800 hours/year	Qualified estimate based on contracts. An operating hour is a quantity measured on machines and engines where the amount of work done or power input cannot be measured otherwise.	rl.cz	10. 2. 2022	1.2
10.	**SFA – Seedlings** CO_2 saved per tree	ecotree. green/en/	One tree saves 25 kg of CO_2	No better estimate has been found. This data is not monitored by the client. Lower limit of CO_2 savings considered.	How much CO_2 does a tree absorb? Let's get carbon curious! (ecotree.green)	20. 1. 2024	2.4
11.	**SFA – Seedlings** Survival rate	nature.com	30% survival rate	This data is not monitored by the client, thus an assumption is used. Lower limit of survival rate is considered.	https://www. nature.com/ articles/s41598-022-25319-7	20. 1. 2024	1.4
12.	**SFA – Seedlings** Number of grown seedlings	Client	28 750 million	Data provided by the client, considered as most relevant.	Credit analysis	20. 1. 2024	3
13	**Renewable Energy** Emission factor in electricity production in the Czech Republic	mpo.cz	0.413 t CO_2/MWh	Data for 2022 were not published at the time of publishing the report, thus data for 2021 were used directly from the Ministry website.	CO_2 emission factor from electricity production in 2010–2021 | MPO	10. 2. 2024	2.4

Index	Category – data	Source name	Value	Reason	Link	Reviewed	Rating
14.	**Renewable Energy** Average annual production	irena.com	1 kWh/kWp	Official statistics for the Czech Republic	irena.org/-/media/Files/IRENA/Agency/Statistics/Statistical_Profiles/Europe/Czechia_Europe_RE_SP.pdf?rev=c-29c-45d4ff654659bd-755c24c7880880	17. 1. 2024	3
15.	**Renewable Energy** PVPP output	ERU	53.89 MW	ERU is the official office responsible for granting the license for production of electricity. ERU stores the actual data in its publicly available database and we consider this data as most relevant.	License Finder | eru.cz	5. 4. 2023	3
16.	**Buildings** Emission factor	europa.eu	280 kWh/m^2 per year for non-residential building/ 168 kWh/m^2 per year for residential building	There is no publicly available data for a benchmark building in the Czech Republic that would be more relevant and more recent.	OVERVIEW | Decarbonising the non-residential building stock | BUILD UP (europa.eu)	17. 1. 2024	2
17.	**Energy Efficiency** Energy savings	Client	127 t CO_2	Data provided by the client, considered as most relevant.	Energy assessment	20. 2. 2024	3

Index	Category – data	Source name	Value	Reason	Link	Reviewed	Rating
18.	**Sustainable Agriculture** Cultivated area	Client	3500 ha	Data provided by the client, considered as most relevant.	Client	5. 3. 2024	3
19.	**Transport – Forklifts** Diesel consumption	mojemt.cz	3 l/h	Average consumption only found on a website focused on forklifts and their sales, as no record of the exact fuel consumption per financed forklift is monitored.	Jakou spotřebu má můj vozík? | Energie a spotřeba VZV | MojeMT.cz	12. 3. 2024	1.2
21.	**Sustainable Agriculture** CO_2 savings	europa.eu	115 kg/CO_2 per ha		LIFE 3.0 – LIFE08 ENV/E/000129 (europa.eu)	12. 3. 2024	2

Impact methodology for asset categories

Score rating in the categories outlined below is derived from the lowest rating of the variables used for the given CO_2 avoidance figure.

Clean Transportation

Trains

CO_2 savings	=	Number of passengers[3]	×	Average distance	×	CO_2/km emissions for a diesel train[1]

Score rating: 2.6

- For a diesel train, we estimate an average CO_2 emission of 0.00897[1] kg per person/km taking into account the average distance[2] travelled by passengers per year.
- We assume an electrically powered train with zero direct emissions for this mode of transportation.

Cars

CO_2 savings	=	Number of cars	×	Average mileage of company car[6]	×	Average emission factor

Score rating: 1

- As an alternative to an electric car we consider the diesel-powered car emission factor[4]: 0.165 kg CO_2/litre.

Bike sharing

CO_2 savings	=	Average km travelled per user[7]	×	Number of users[7]	×	Average CO_2 production per bus passenger

Score rating: 2.9

- We regard the bus as an alternative to an e-bike/bike because both of these modes of transport are commonly used as last-mile commutes.
- Average CO_2 production per passenger on a bus[8]: 0.06 kg/km

Electric forklift

CO_2 savings	=	Average forklift mileage	×	Diesel consumption	×	Diesel emission factor[5]

Score rating: 2.6

- As an alternative to an electric forklift we consider a diesel forklift.
- Diesel truck consumption: 3 l/h[10]
- Average forklift mileage: 800 operating hours/year

Sustainable Forestry and Agriculture

Forestry

CO_2 savings	=	Number of seedlings	×	25 (CO_2 saved)	×	0.3 (survival rate)

Score rating: 2.6

New technologies for planting tree seedlings – calculation procedure.

The number of seedlings grown[13] has been provided by the client. We have factored in a projected survival rate of 30%[12] for the tree seedlings reaching maturity. We estimate that a tree saves 25 kg of CO_2[11].

Agriculture

CO_2 savings	=	Area covered	×	Savings[19]

Savings defined as the amount of CO_2 saved compared to conventional agriculture.

Renewable energy

CO_2 savings	=	Installed capacity	×	CO_2 emission factor for electricity production in the Czech Republic	×	Average annual production per 1kWP of capacity

Score rating: 2.8

The calculation of CO_2 savings for a photovoltaic power plant follows the following procedure:

- We acquire the data on the output of photovoltaic (PV) power plants from the Energy Regulatory Office[16].
- Deeming PV an emission-free technology, we attribute an emission factor of 0 to it.
- We estimate the average emissions from electricity production at 0.39 t CO_2/MWh[14].
- Average production is 1 kWh/kWp[15].

Green buildings

CO_2 savings	=	(Final energy demand – Baseline)	×	Emission factor

Score rating: 2

Energy savings are calculated as savings compared to the average building-wide consumption (Europa.net).

We utilize the EPC label, and put the corresponding value directly against the average national consumption. Energy obtained from non-renewable resources is not considered in our calculcation of CO_2 emission avoidance.

The savings are calculated against the average consumption, as outlined in the data above, factoring the following:

- Residential buildings 168 kWh/m^2 per year[17]
- Non-residential buildings 280 kWh/m^2 per year[17]

The resultant energy savings are subsequently converted, based on the emission factors for each source (namely gas, oil, natural gas and biomass). Where the specific energy mix is not available, we resort to applying the energy mix associated with an average local building.

Energy efficiency

CO_2 savings	=	Savings	×	Emission factor

- We take into account the average emissions from electricity production at 0.39 t CO_2/MWh[14].
- We utilize data pertaining to the amount of CO_2 savings[17], extracted directly from the energy assessment conducted for the particular project.