

Green bond allocation and impact report

as of 31.12.2022

#forblueplanet



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Foreword

The financial sector plays a key role in the economy, with banks having a significant impact. Banks can redirect investments to more sustainable projects and influence the fulfilment of global sustainability goals. This is also why Tatra banka takes a very active approach on this topic, both in terms of internal philosophy and in specific products and solutions. As an institution, Tatra banka believes that innovations push the boundaries of banking, adding the dimension of social responsibility. In this respect, it is important to achieve the triple bottom line: a balance between people, planet, and profit.

Together with affiliated banks in the RBI Group, Tatra banka is actively contributing to the Sustainable Development Goals (SDGs) set in the Agenda 2030, which encompass social and economic development as well as environmental sustainability. Tatra banka has recently implemented the environmental management system according to the ISO 14001 standard, which is in line with the bank's sustainability strategy and environmental policy. This confirms the adoption of environmental protection principles in order to reduce the negative impact on the planet.



The aim of promoting sustainable lending is supported by the ongoing issuance program for green bonds. Since the first green issuance in 2021, Tatra banka has established itself as a reliable issuer of green bonds with the comprehensive Green Bond Framework that enables financing of a wide range of environmentally sustainable projects in compliance with the ICMA Green Bond Principles (2018) and the EU Green Bond Standard. To confirm the transparency and robustness of the bank's Green Bond Framework, it is verified and approved by an external second party opinion provider, Sustainalytics. By the end of 2022, this framework laid foundations to Tatra banka's issuances of Green Senior Unsecured MREL bonds that totaled nearly 520 million EUR. The proceeds are used to finance projects relating to energy-efficient buildings, renewable energies, and clean transportation.



A handwritten signature in black ink, appearing to read 'Johannes Schuster'.

Johannes Schuster
Chief Financial Officer

As a responsible banker, long-term added value is Tatra banka's primary objective. Accordingly, sustainability is an integral part of the business strategy on the local level, as well as globally at RBI Group. The banking group therefore pursues a holistic approach to avoid ESG risks and take advantage of opportunities in order to improve both environmental protection and social standards.

To support this approach, RBI became the first Austrian banking group to sign up to the global Principles for Responsible Banking (PRBs) of the UNEP Finance Initiative at the start of 2021. The Principles for Responsible Banking are a single framework for a sustainable banking industry that was developed through an innovative global partnership between banks and the United Nations Environment Programme Finance Initiative (UNEP FI). By signing the principles, the banking group has undertaken to systematically follow the path, anchoring sustainability topics even more strongly in all business areas. The PRBs constitute the overriding steering framework for RBI.

In 2018, RBI set up its green bond issuance program with the aim of promoting sustainable lending in Austria and Central and Eastern Europe. With a total volume of just under 1.978 billion EUR in Austria, RBI is currently the largest green bond issuer in the country and has now established itself as a regular issuer of green bonds on the international capital markets and in the retail segment in Austria and Central and Eastern Europe. As of December 31, 2022, RBI's network banks in Slovakia, Romania, Czech Republic and Hungary had issued green, social and sustainable bonds with a total volume of 1.796 billion EUR.



A handwritten signature in blue ink, appearing to read 'Christine Würfel'.

Christine Würfel
Head of RBI Group ESG &
Sustainability Management



A handwritten signature in blue ink, appearing to read 'Tomáš Kvašňovský'.

Tomáš Kvašňovský
Sustainability Manager,
Tatra banka

Green bond highlights and information

ISIN	Issue Date	Amount issued	Status	Maturity
SK4000018925	April 2021	EUR 300 000 000	Green Senior Unsecured MREL eligible	April 2028
SK4000022034	October 2022	EUR 200 000 000	Green Senior Unsecured MREL eligible	October 2025
SK4000022174	November 2022	USD 20 000 000	Green Senior Unsecured MREL eligible	November 2029

Tatra banka followed its strategy and focus on ESG in 2022 and successfully issued 2 green bonds in very volatile markets impacted by geopolitical and macroeconomic factors. The first one issued in October 2022 was disbursed mainly to local institutional investors. The deal was supported by EUR 30 million order from EBRD. The initially announced amount of the bond set to EUR 150 million was eventually increased to EUR 200 million due to strong demand.

Tatra banka then followed with the second issuance in November 2022 in the amount of USD 20 million. The bond was placed in a private placement format to an international institutional investor. The requirement of the investor was to issue the bond with a green label.

“The success of both transactions proves the benefit of green label and Tatra banka’s focus on ESG especially in turbulent markets we experienced in 2022.”, highlights Michal Liday, CEO and Chairman of the Board of Directors of Tatra banka.

Allocation report

The total amount of green loans in Tatra banka's portfolio reached **EUR 601 million** at the end of December 2022. Over EUR 347 million was already disbursed by the clients and another EUR 254 million have been signed and are available on clients' credit accounts for further disbursement.

The most relevant amount of green portfolio is allocated in the **construction and real estate category**, EUR 532 million, represented by green buildings with different purpose of use – residential, commercial, shopping malls and hotels.

In total, EUR 55 million was allocated in **renewable energy**, represented mostly by the financing of electricity generation from solar photovoltaic technology, but by financing of electricity from hydropower as well.

The importance of **clean transportation** is constantly growing and it is also represented in Tatra banka's portfolio by the financing of components for electric vehicles, with the allocation of EUR 14 million.

Green buildings:

- **89%** from green loan portfolio
- focus on green residential buildings
- mostly new projects under construction
- small proportion of already built projects

Renewable Energy:

- **9%** from green loan portfolio
- financing of solar panels and solar technologies
- financing of small hydro power plants

Clean Transportation:

- **2%** from green loan portfolio
- financing of components for electric vehicles and components for batteries for electric vehicles

Green loan portfolio breakdown into eligible categories

	OUTSTANDING (EUR million)	OFF-BALANCE (EUR million)	TOTAL ALLOCATED (EUR million)	TOTAL ALLOCATED (%)	NUMBER OF LOANS
GREEN BUILDINGS	278	254	532	89	35
RENEWABLE ENERGY	55	0	55	9	70
CLEAN TRANSPORTATION	14	0	14	2	3
TOTAL	347	254	601	100	108

KPMG Slovensko spol. s r.o. ("KPMG") has conducted agreed-upon procedures, the purpose of which was to assist the Bank in demonstrating whether (i) the assignment of loans to the Green Loan portfolio as included in the Green Loan Register has in each case been approved by the Bank's Green Bond Committee, (ii) the Green Loans are flagged as such in the records and systems of the Bank and whether (iii) the Green Loans were disbursed as at 31 December 2022 in the amounts as stated in the Green Loan Register. There are no exceptions noted in the findings of the report. The full agreed-upon procedures report by KPMG is available at <https://www.tatrabanka.sk/en/about-bank/economic-results/green/>.



Impact report

The green loan portfolio has saved in total 37 497 tons of CO₂ equivalent (tCO₂e) per annum. It can be estimated that 62 tCO₂e was saved per 1 million in investments. The annual emission savings were calculated using the methodology described below in the section entitled Carbon Impact. The parameters for calculation were given by clients and taken from generally available sources.

The CO₂e savings are almost equally distributed between green building and renewable energy projects, although 89% of green loan portfolio was allocated into green buildings, and 9% into the renewable energy projects.

Emission savings data were not calculated for clean transportation because of the inconsistency in available methodologies and lack of data.

Total green loan portfolio impact

	TOTAL ALLOCATED (EUR million)	ANNUAL EMISSION SAVINGS (tCO ₂ e)	EMISSION SAVINGS (tCO ₂ e/EUR 1 million)	ANNUAL EMISSION SAVINGS (%)
GREEN BUILDINGS	532	20 443	38	55
RENEWABLE ENERGY	55	17 054	311	45
CLEAN TRANSPORTATION*	14			

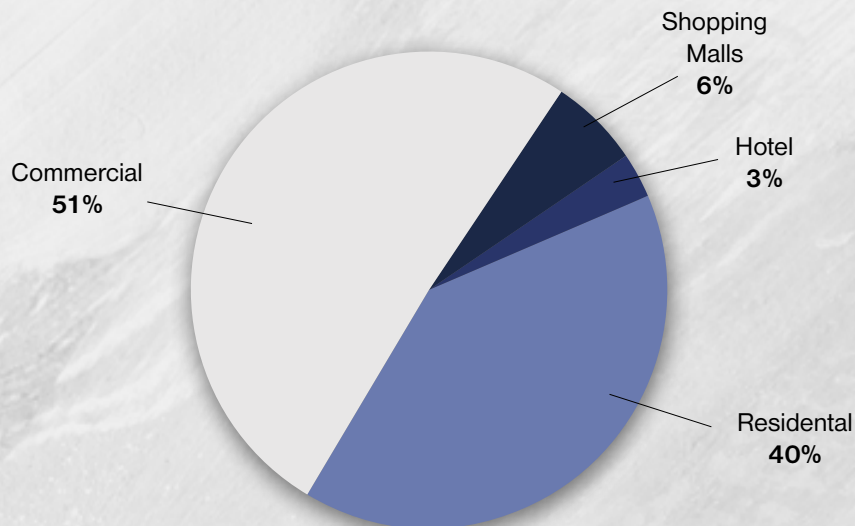
*data not available

Green buildings portfolio impact

Out of the green building portfolio, commercial buildings have the most significant impact in terms of saved tCO₂e per EUR 1 million investment (112). Residential and commercial buildings have saved 40% and 51% of emissions from green building portfolio, respectively.

	TOTAL ALLOCATED (EUR million)	ALLOCATION FROM GREEN BUILDINGS (%)	NUMBER OF LOANS	ANNUAL EMISSION SAVINGS (tCO ₂ e)	EMISSION SAVINGS (tCO ₂ e/EUR 1 million)
RESIDENTIAL	391	73	22	8 053	21
COMMERCIAL	94	18	11	10 516	112
SHOPPING MALLS	37	7	1	1 241	34
HOTELS	10	2	1	633	63
TOTAL	532	100	35	20 443	38

Proportion of emission savings from green building portfolio

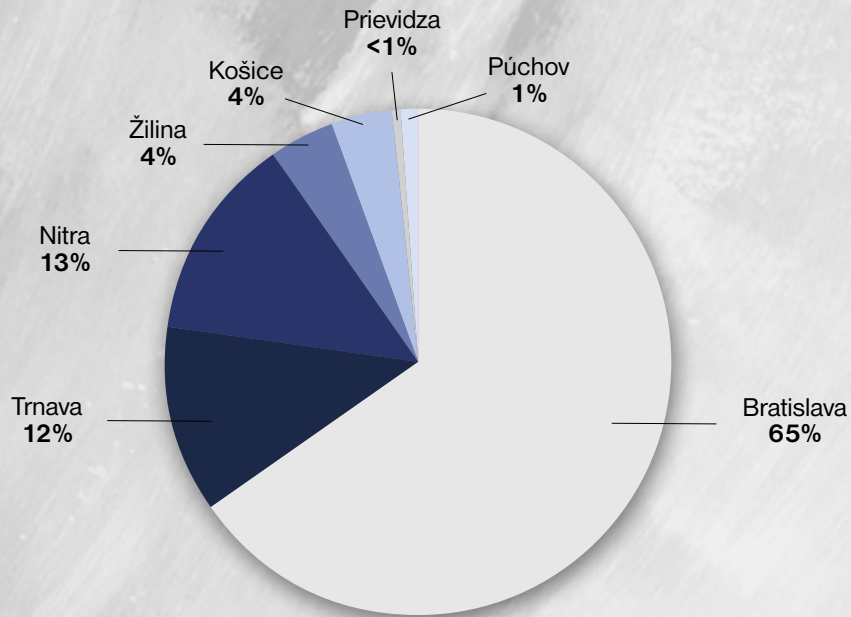


Region of asset allocation – green buildings

The majority of the green building portfolio was allocated in the regions of Bratislava, followed by Nitra and Trnava which have saved approximately 65, 13, and 12% of emissions, respectively.

	TOTAL ALLOCATED (EUR million)	ALLOCATION FROM GREEN BUILDINGS (%)	NUMBER OF LOANS	ANNUAL EMISSION SAVINGS (tCO ₂ e)	EMISSION SAVINGS (tCO ₂ e/EUR 1 million)
BRATISLAVA	431	81	19	13 314	31
TRNAVA	36	7	5	2 392	67
NITRA	7	1	5	2 725	389
ŽILINA	15	3	3	879	57
KOŠICE	27	5	1	772	28
PRIEVIDZA	3	1	1	53	18
PÚCHOV	12	2	1	308	25

Proportion of emission savings from green building portfolio according to the geographic distribution

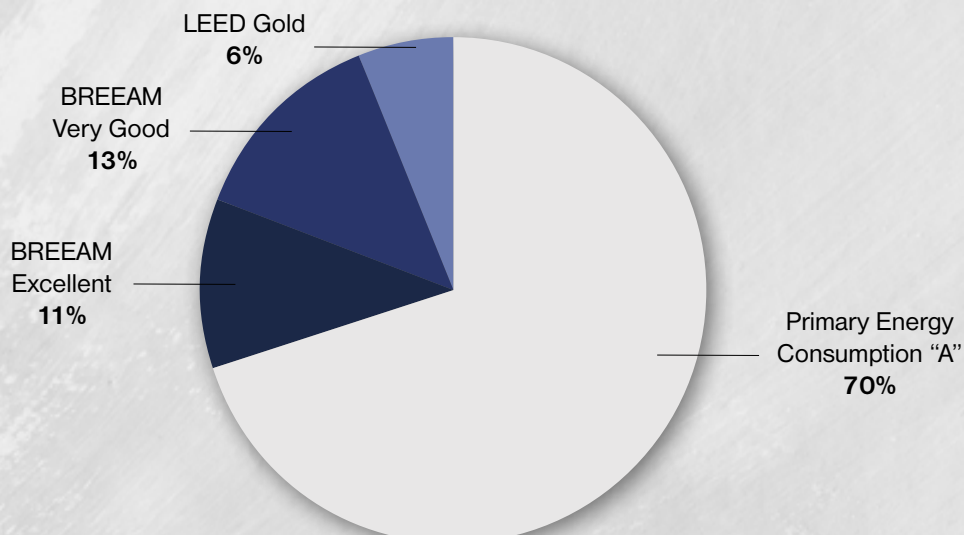


Most of the projects from the green buildings category are under the construction, a smaller portion was allocated into finished (per the table) projects. However, the impact of finished (per the table) green buildings in terms of saved tCO₂e per EUR 1 million of investments was significant (110).

	TOTAL ALLOCATED (EUR million)	ALLOCATION FROM GREEN BUILDINGS (%)	ANNUAL EMISSION SAVINGS (tCO ₂ e)	EMISSION SAVINGS (tCO ₂ e/EUR 1 million)
FINISHED	82	15	9 001	110
UNDER CONSTRUCTION	450	85	11 442	25

Proportion of emission savings according to the green building international certification

A part of the green building portfolio possesses international certificates BREEAM Excellent, BREEAM Very Good and LEED Gold. The green buildings without international certification possess the national energy certificate "A".

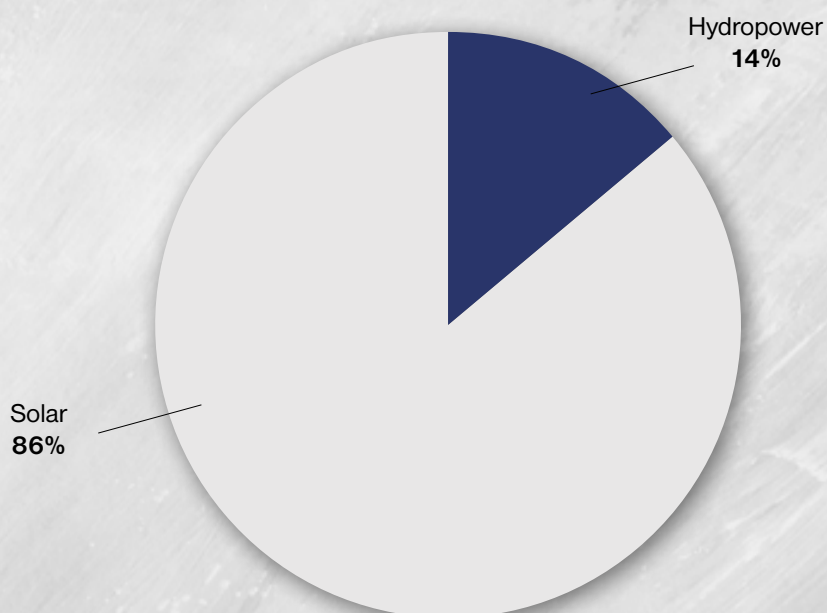


Renewable energy portfolio impact

Solar panels, solar technologies and small hydropower plants were financed within the renewable energy eligible category. In total, renewable energy portfolio has saved 17 051 tCO₂e which represents 311 tCO₂e per EUR 1 million of investment.

	TOTAL ALLOCATED (EUR million)	ALLOCATION FROM RENEWABLE ENERGY (%)	NUMBER OF LOANS	ANNUAL EMISSION SAVINGS (tCO ₂ e)	ANNUAL ENERGY GENERATION (MWh/Y)
HYDROPOWER	5	9	2	2 368	12 828
SOLAR	50	91	68	14 685	79 543

Proportion of emission savings from renewable energy portfolio



Region of asset allocation – renewable energy

	TOTAL ALLOCATED (EUR million)	ALLOCATION FROM RENEWABLE ENERGY (%)	ANNUAL EMISSION SAVINGS (tCO ₂ e)	FINANCED EMISSION SAVINGS (tCO ₂ e/EUR 1 million)
BANSKÁ BYSTRICA	25	45	7 223	294
TRNAVA	6	10	2 109	383
NITRA	5	10	2 809	530
TREŇČÍN	1	3	439	293
PREŠOV	6	11	1 578	263
KOŠICE	9	16	1 810	208
ŽILINA	3	6	1 086	329

Saved CO₂ emissions transformed into real-life examples



155 million kilometers annually driven by an average gasoline-powered passenger vehicle



More than **7 200 homes'** annual electricity use for one year



4 billion of smartphones charged each year



Equivalent to carbon sequestered by **620 013** tree seedlings grown for 10 years

37 497 CO₂e

metric tons annually saved with the green portfolio of

€601 million.

Source: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

The Institute of Circular Economy (INCIEN) confirms the accuracy and timeliness of the calculations. Tatra banka proceeded according to the chosen methodology. The most accurate available sources of emission factors for Slovakia for the year 2022 were used in the calculations.



Case studies – green buildings

Residential project “Zelené Vlčince” in Žilina

The residential project “Zelené Vlčince” of development company Reinoo is situated in Žilina, in the northern part of Slovakia. Project aims to build a new residential district in the city, with regards to environment and the surrounding nature. As the name of the project promises*, the central idea of project is living surrounded by greenery.

Green areas in the new residential district make up more than 16 000 sqm, which represents the equivalent of three football fields. New trees more than 12 meters in height were planted, green roofs preventing overheating of the buildings have been implemented.

Infiltration pits were installed to catch the rain-water in order to keep the water in area and to avoid drainage and drying of the area.

Project is being realized in several phases, permits of use have been released for phase I and phase II.

Project’s primary energy consumption is on level A1 according to the national energy standards.

*“zelené” means “green” in Slovak language



Case studies – green buildings

Retail park “KLOKAN” in Zvolen, Slovakia

The retail park KLOKAN has grown in the central part of Slovakia – in the city of Zvolen – well known for its long-term forestry and wood sciences tradition represented by the Faculty of Forestry originally established in the city in 1952. Some of the green measures used in the project reflect this tradition and strive to reconnect it with the modern sustainable construction methods and approach.

The developer’s focus (KLM Real Estate) on sustainability is very clear in the project costs, since, out of the total investment costs of EUR 23 million, up to EUR 1.5 million was spent on green measures.

Sustainability has been considered in every project phase, beginning from the building foundations and landscaping during which approximately one hundred thousand tons of construction waste was recycled.

The total net leased area of the project is 13 000 sqm with 430 outside parking spots and green roof on the entire area of the shopping center. Its role is to reduce the temperature in the building as well as of the roof itself. It also helps to retain the water in the area, reduces the dust and CO₂ emissions from surrounding traffic. Project offers electric car chargers, retention tanks and rain garden with pond.

But the most visually striking element of the shopping center is probably the oak alley with more than 120 trees from 20 different types of oaks from North America and Europe. Oak alley with its variety of trees should become a kind of “arboretum” and is intended to become the training center for Zvolen’s Faculty of Forestry.

Project’s primary energy consumption is on level A0 according to the national energy standards.

Carbon impact methodology

Tatra banka estimates the carbon impact of its green loan portfolio on a line by line basis based on RBI group and Tatra banka methodology.

Green buildings

$$\text{Final Energy Demand (b)} - \text{Baseline (c)} \times \text{Emission Factor (c)} = \text{Carbon Impact (Building b, Country c)}$$

Tatra banka collects the buildings' real energy consumption data from local energy certificates provided by clients for completed projects and from pre-certification for projects under construction. The energy certificates are mandatory legal documents for new buildings. The energy certificates are mandatory for every newly built or significantly renovated building after January 1, 2008 and for buildings that are sold or rented after this date. Information regarding local certification level is provided by clients in an ESG questionnaire and is also publicly available.

Energy savings are calculated against baselines of national energy demand for commercial and residential real estate based on the data published in 2020 in the Long-term strategy for the renewal of the building stock, Ministry of Transport and Construction (<https://www.mindop.sk/ministerstvo-1/vystavba-5/stavebnictvo/dokumenty-a-materialy>).

Energy savings are then converted into carbon savings as follows:

For solid fuels, liquefied petroleum gas, solid biofuels, gas oil / diesel fuel, biogas, gas and waste (non-renewable), the emission factors are taken from the International Energy Agency (Ministry of Transport and Construction, <https://www.mindop.sk/ministerstvo-1/vystavba-5/stavebnictvo/dokumenty-a-materialy>).

For electricity, the emission factors are based on the residual electricity mix taken from the Association of Issuing Bodies, OKTE a.s., <https://www.okte.sk/sk/zaruky-povodu/statistiky/narodny-energeticky-mix/>.

For district heating, the emission factors are based on the data from the Ministry of Environment of the Slovak Republic, the Institute for Environmental Policy, <https://www.mhth.sk/sluzby/dalsie-sluzby>.

Emission factors for the above energy sources are then combined according to the energy mix consumed by buildings locally, based on data by the Entranze project (<https://www.entranze.eu/>)

Renewable energy



Carbon impact is based on the data provided by the bank's clients.

The carbon impact is calculated by subtracting CO₂e emissions from the renewable electricity production (Annual electricity produced from hydropower × Emission Factor for electricity produced from hydropower) from CO₂e emissions from public electricity production (annual electricity produced from all renewable sources × emission factor from public electricity production (c)).

Note: Electricity production from hydropower is not emission-free.

Emission factor for public electricity production in Slovakia is based on the residual electricity mix taken from OKTE a.s., <https://www.okte.sk/sk/zaruky-povodu/statistiky/narodny-energeticky-mix/>.

Emission factor for electricity production from hydropower in Slovakia is taken from OKTE a.s. (Short-term electricity market operator), <https://www.okte.sk/sk/zaruky-povodu/statistiky/narodny-energeticky-mix/>.

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