



**Banca Popolare  
di Sondrio** FONDATA NEL 1871

# GREEN BOND REPORT 2024

SENIOR PREFERRED GREEN BOND ANNUAL ALLOCATION AND IMPACT REPORT

## **Banca Popolare di Sondrio SpA**

Founded in 1871

Joint-stock company

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Registered with the Sondrio Register of Companies at No. 00053810149

Registered in the Bank Register at No. 842

Parent company of the Banca Popolare di Sondrio Banking

Group, registered in the Banking Group Register under No. 5696.0

Member of the Interbank Deposit Protection Fund Tax code

and VAT number: 00053810149

Share capital: € 1,360,157,331 - Reserves: € 1,385,452,113

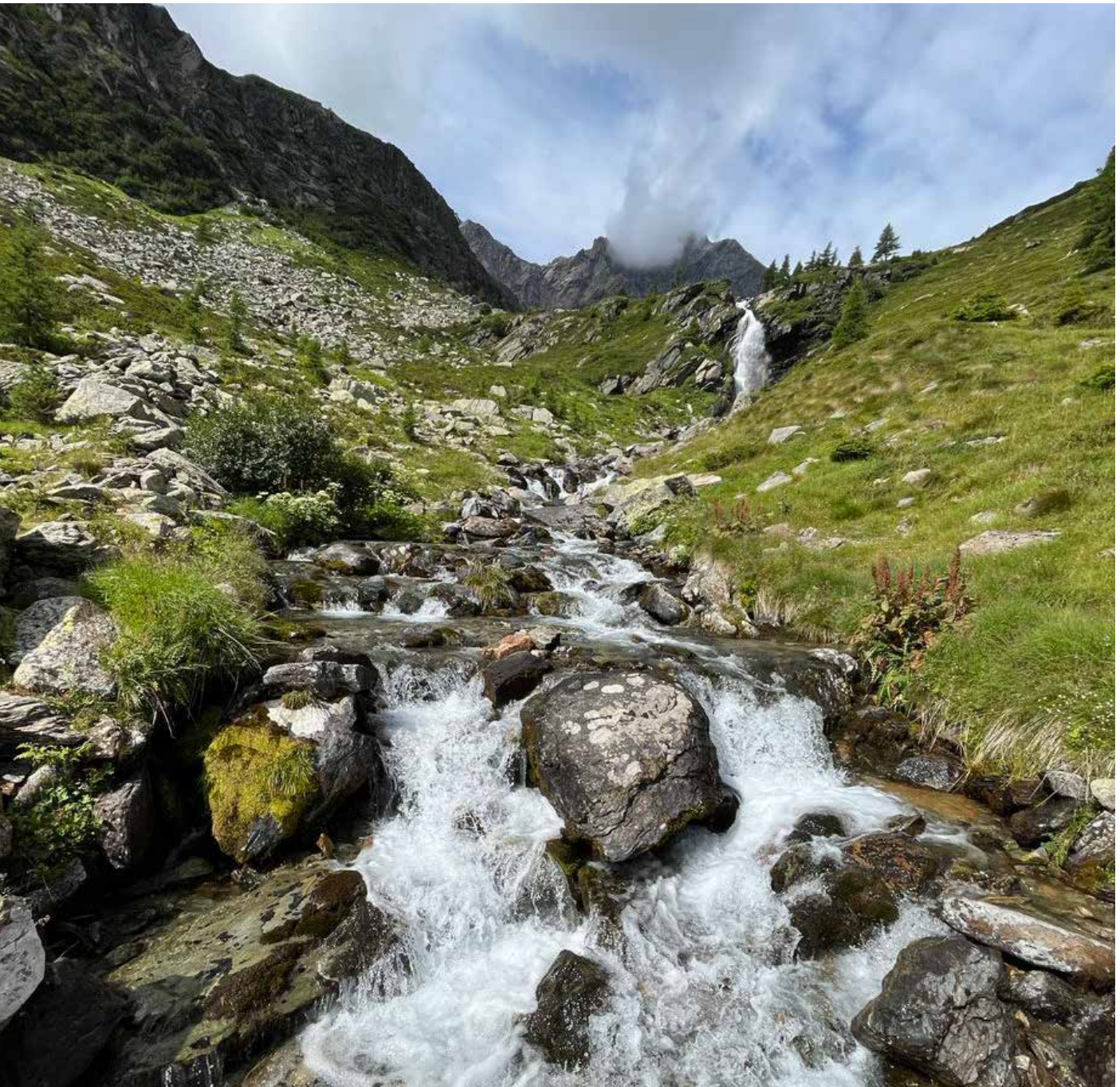
(Figures approved by the shareholders' meeting of April 24, 2024)

Cover photo by: **Alessia Dell'Oca**, Risk Office

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# 01.

## Introduction: our Green Bonds

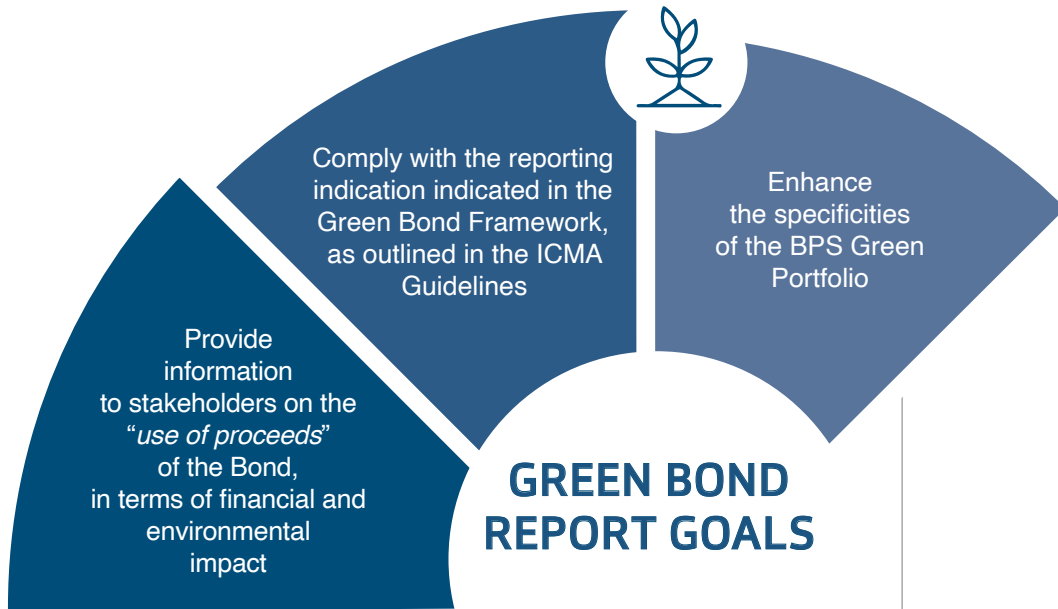
In May 2024, Banca Popolare di Sondrio (BPS or the Bank) issued its third Senior Preferred Green Bond (Green Bond), in the amount of €500 million, under the Euro Medium Term Notes (EMTN) program. This issue follows the first two (2021 and 2023), both with allocations of 500 million, in line with the Bank's goal of promoting ESG bonds, as stated in the 2022-2025 "Next Step" Business Plan.

The Institute's green issues total 1.5 billion euros and framed in a Framework approved by the specialized firm Sustainalytics with a Second Party Opinion issued in October 2023 and aligned with the Green Bond Principles - Voluntary Process Guidelines for Issuing Green Bonds, of the International Capital Market (ICMA Guidelines).

The decision to continue with regularity in the issuance of this type of financial instrument derives not only from the economic - financial opportunity, but also from the awareness of having, within its client portfolio, numerous virtuous realities, attentive to the territory and the welfare of the community. The proceeds from these transactions are then transferred to these positions. This annual report (Report or Green Bond Report), first published in July 2022 and now in its third edition this year, aims to give disclosure about the selection of assets, use of proceeds and impacts generated by the financed activities. More than 7.000 loans to Corporate, SME and Private companies whose investments have contributed to the avoidance of 131,033.74 tons of CO<sub>2</sub> into the atmosphere are part of the Green Bond Portfolio.

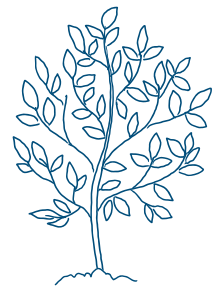






## THE PECULIARITIES OF THE LOAN PORTFOLIO UNDERLYING THE BPS GREEN BOND

- Granularity.**  
 More than 7,000 grants are included.  
 The counterparts are corporate companies, SMEs and individuals.
- Variety.**  
 Loans considered cover all eligible categories outlined in the Framework.
- Inclusion of BPS (SUISSE).**  
 BPS was among the first lending institutions to also include loans provided by a foreign subsidiary.
- Nationwide impact of funding granted.**  
 Despite the absence of physical branches in some regions of Italy, BPS finances projects spread throughout the country.



### JULY 2021

- Approval of the Framework
- Second party opinion
- Issuance of the First Senior Preferred Green Bond

### DECEMBER 2021

- Achieving *full allocation*



### JULY 2022

- Approval and publication of the first Green Bond Report
- Approval and publication of the second Green Bond Report



### SEPTEMBER 2023

- Issuance of the second Senior Preferred Green Bond Report

### OCTOBER 2023

- Green Bond Framework Update

### MAY 2024

- Issuance of the third Senior Preferred Green

### SEPTEMBER 2024

- Approval and publication of the third Green Bond Report

## THE BPS GREEN BONDS PATH



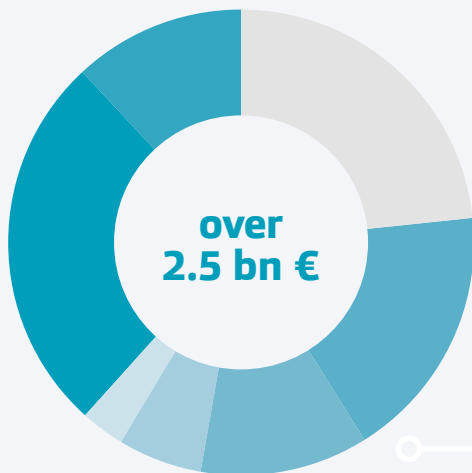
## 02. Highlights: the key numbers of the Green Bond portfolio

**131 thousand**  
tons of CO<sub>2</sub>  
saved

**+ more than 7,000**  
loans  
included

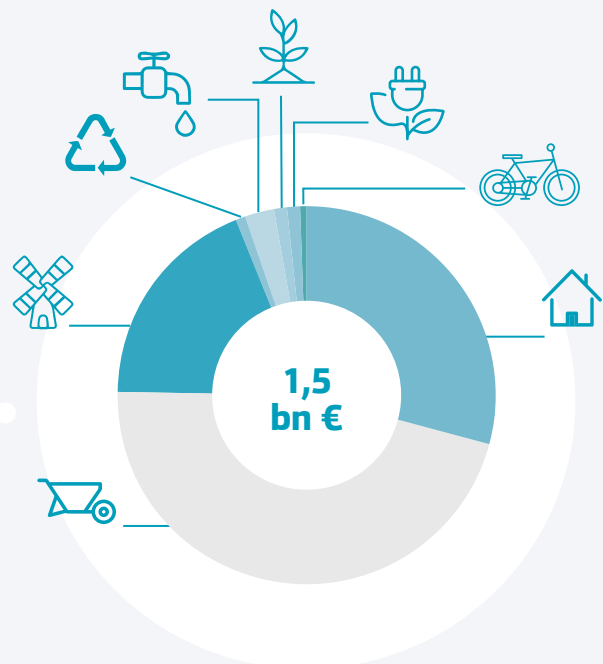
**+ than 5 billion**  
of cubic meters of biomethane produced

### BPS Potential Green Portfolio



Eligible portfolio and potentially (Re)financeable through the proceeds of the Green Bond and under the BPS Green Bond Framework.

### BPS Green Bond Portfolio



## BPS's commitment to sustainability

## 03.






The Group's commitment to sustainability is constantly renewed in a gradual and decisive evolution of its strategy, solid in the integration of ESG factors and with a focus on climate-environmental aspects. This commitment has been made explicit by the joining, in 2023, of the Net-Zero Banking Alliance (NZBA): an alliance of Banks born within the UNEP FI, with the aim to lead the sector towards a transition of the economy to "net-zero emissions" by 2050.

The Business Plan update provided a valuable opportunity to strengthen the Group's ESG strategy: the integration of ESG factors into business and operations is now represented by cross-cutting and measurable objectives, including strengthening governance, implementing sustainability in the Bank's main processes, revisiting the product and service catalog, participating in national and international initiatives on sustainability issues, and continuously updating reporting on ESG issues. In line with these objectives, the Bank has embarked on a path aimed at the consideration of climate-environmental risks (C&E risks) in the strategic mechanisms, *risk management* systems, and neuralgic processes that characterize its business model, including credit granting and monitoring processes. In addition, it has integrated the consideration of sustainability factors into its investment decision-making processes, tailoring its products and services more closely to its strategy and changing market needs.





# Sustainability as an enabling factor of the strategic plan

 <b>GOVERNANCE ESG</b>	 <b>INITIATIVES INTERNATIONAL AND ESG RATING</b>	 <b>POLICIES AND BUSINESS STRATEGY</b>	 <b>PRODUCTS AND SERVICE</b>	 <b>REPORTING AND COMMUNICATION</b>
<ul style="list-style-type: none"> <li>✔ Strengthening <b>ESG Governance</b></li> <li>✔ <b>ESG training</b> all Group personnel</li> <li>✔ <b>ESG compliance programme</b></li> <li>✔ Integration of ESG factors in <b>Remuneration Policies</b></li> <li>✔ <b>Internal behavior guidelines</b> for the reduction of <b>environmental impacts</b></li> <li>✔ Strengthening of <b>Level II and III ESG checks</b></li> </ul>	<ul style="list-style-type: none"> <li>✔ Intensification of dialogue <b>with providers</b></li> <li>✔ Improvement of some <b>ESG ratings</b></li> <li>✔ Support to <b>TCFD</b></li> <li>✔ Joining <b>Valore D</b></li> <li>✔ Joining the <b>UN PRB and Net-Zero Banking Alliance</b></li> </ul>	<ul style="list-style-type: none"> <li>✔ <b>ESG Credit</b></li> <li>✔ <b>Integrated Risk Management</b></li> <li>✔ First set of <b>portfolio CO<sub>2</sub> reduction targets</b></li> <li>✔ Definition of the <b>counterparty ESG score</b></li> <li>✔ <i>Own funds</i>: 10% <b>Bond Fund in ESG tools</b></li> <li>✔ <b>ESG Investment Policy</b> Definition</li> </ul>	<ul style="list-style-type: none"> <li>✔ <b>Expansion of ESG asset management lines</b></li> <li>✔ Integration of ESG topics into <b>MiFID II questionnaire</b></li> <li>✔ New <b>Green Bond issuance</b></li> <li>✔ New <b>ESG Bond Framework</b></li> <li>✔ Development of <b>new Green Loans</b></li> </ul>	<ul style="list-style-type: none"> <li>✔ Improvement of analyses concerning <b>indirect emissions (Scope 3)</b></li> <li>✔ Integration of the NFS with the <b>TCFD recommendations</b></li> <li>🕒 Evolution of the contents of the NFS as regards the <b>Corporate Sustainability Reporting Directive (CSRD) and the new reporting standards</b></li> </ul>
<ul style="list-style-type: none"> <li>🕒 <b>Sustainable mobility</b> operational plan</li> <li>🕒 <b>Diversity and Inclusion</b> operational Plan</li> <li>🕒 Launch of the <b>women leadership</b> program</li> </ul>	<ul style="list-style-type: none"> <li>🕒 <b>ESG rating &amp; scoring</b> improvement</li> </ul>	<ul style="list-style-type: none"> <li>🕒 Increase of the target on the <b>ESG</b> segment of the <b>proprietary portfolio</b></li> <li>🕒 Definition of the <b>giving strategy</b></li> <li>✔ <b>ESG rating</b> for <b>suppliers</b></li> <li>🕒 <b>ISO 14001</b> Environmental Management System</li> <li>🕒 <b>ESG Data Governance</b></li> </ul>	<ul style="list-style-type: none"> <li>🕒 Integration of counterparties' ESG Score with <b>Taxonomy alignment</b></li> <li>🕒 Development of <b>Taxonomy aligned products</b></li> </ul>	<ul style="list-style-type: none"> <li>🕒 Analysis of the environmental performance of <b>real estate assets</b></li> <li>🕒 Strengthening of the <b>ESG communication strategy</b></li> <li>🕒 <b>ESG brand identity</b></li> </ul>

✔ Activity completed in 2022    ✔ Activity completed in 2023    🕒 Activity in progress    🕒 Info in DNF 2023



Considering the centrality that sustainability has acquired over the past few years and a commitment that can no longer be revoked anyone, the Bank also aspires to play its part as a major player in the transition path to a more sustainable economic model, while also seizing the opportunities that come with it both on the business front and in making business processes more robust. To meet these ambitious goals, the Bank believes in international cooperation and in the key role that the financial sector plays.



The NZBA aims to accelerate the sustainable transition of the banking sector through the commitment of member banks to align their lending and investment portfolios to the goal of net zero climate gas emissions by 2050. By joining the NZBA, the Bank commits to:

- align investment and credit portfolios to net-zero scenarios to 2050, promoting its clients' transition;
- within 18 months of joining, set 2030 and 2050 targets for the most emissive sectors;
- annually report target progress and board-approved transition strategy to the.

In order to assess the consistency of NZBA membership and enable the Governing Bodies to make an informed decision, during 2023 the Bank defined an initial set of targets (so-called pre-targets) on the carbon intensive sectors in its loan portfolio.



**AGRICULTURE**

-31% to 2030



**OIL & GAS**

Oil: -29% to 2030  
Gas: -14% to 2030



**POWER**

-50% to 2030



**AUTOMOTIVE**

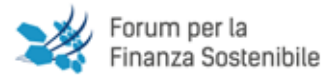
-25% to 2030

Note: Preliminary analysis carried out on the loans portfolio at 31/12/2022 (baseline) in which Scope 1, 2 and 3 emissions were included and UNEP FI and IEA scenarios applied. The pre-targets, aimed at CO<sub>2</sub> absolute reduction, have been set up by identifying a mix of companies -in carbon intensive sectors suggested by NZBA-covering most of the financed emissions.

The pre-targets are being further processed to assess their relevance and hone them, with the aim of obtaining an initial set of targets to be sent to the NZBA, in accordance with the NZBA's methodology. For more details on target- setting activities, see BPS's TCFD Report of 2023.



In addition, the Bank strongly supports:



The ongoing commitment to sustainability is reflected in the positive ratings in key ESG ratings that have seen substantial improvement over the past year, including:



Score: **A-**  
Leadership



Score: **EE+**  
Very strong (sustainable)



# ESG Credit - Policy and Products

# 04.

With the 2022-2025 Business Plan, the Group has defined specific actions in the area of Sustainability and initiated, in line with European sustainable finance regulations and market trends, the integration of ESG factors into all major credit processes and procedures.

This path led in 2022 to the adoption of the ESG Credit Policy, a document that identifies the approach and general principles for the formulation of an ESG-conscious credit process, in accordance with the EBA Guidelines on the granting and monitoring of credit.

The Policy, which is being updated, identifies a list of ESG-sensitive sectors, including:



Coal mining



Electricity generation from non-renewable sources



Manufacture and trade of weapons



Mining sector (other than coal)



Gambling



Tobacco



Oil & Gas





In addition to the above sectors, any transaction related to (i) counterparties residing in countries with privileged taxation, and (ii) counterparties residing in countries subject to embargo/restriction of goods is particularly monitored.

The Group, in order to mitigate ESG risks related to counterparties and/or transactions linked to these sectors or countries, has established at the credit granting stage the application of general criteria involving intensified controls and escalation decision-making and support for customers in a transition to a more sustainable business.

In addition, based on the principle of “dual materiality,” BPS has taken steps to establish an ESG risk assessment system through the ESG counterparty score, a tool that identifies climate-environmental risk factors (transitional and physical) and estimates their impact on counterparties from a forward-looking perspective, through the use of forward-looking climate scenarios and taking into consideration the financial size of companies.

During 2024, the Bank implemented actions to strengthen its credit evaluation and granting processes through:

- the integration of the Counterparty ESG Score into the Electronic Credit Practice to support the consideration of Sustainability aspects in credit evaluations;
- the activation of specific due diligence on counterparties most exposed to ESG risks;
- the inclusion of ESG Score as an additional factor in determining the decision-making body;
- the enrichment of the pricing procedure through the inclusion of an additional charge for counterparties with high ESG Scores;
- the activation, with reference to the entrustment practices subject to resolution by the Board of Directors, of a dedicated analysis to deepen the Sustainability profile of some counterparties selected on the basis of specific criteria.

More information available at the following link:

<https://istituzionale.popso.it/en/esg-credit-tm>

#### **Policy related to financing the sector of manufacture and trade armaments**

The BPS Group enshrines its commitment in order to regulate, in full compliance with national and international norms, the management of the armaments sector, championing the “peace economy” as a necessary condition for authentically sustainable development and consistently and transparently identifying the role of the financial sector, encouraging dialogue with its stakeholders.

Specifically, the Policy defines the guidelines and principles that the Group identifies in the pursuit of its decision-making and operational processes.

More in-depth information is available at the following link:

<https://istituzionale.popso.it/en/sustainability/social>



## Focus: sustainable products next

In order to support the customers committed to the green transition, the Bank has developed “next” products, a financing package designed to assist individuals, professionals and businesses who want to invest in reducing their “carbon footprint” through, for example, the installation of renewable energy systems, the purchase of environmentally friendly means of transportation or by making their homes or workplaces more efficient.



**next**  
per l'ambiente

### PRIVATE



#### LOAN

- Green Energy
- Sustainable mobility

#### MORTGAGE

- Green buildings

### BUSINESSES



#### MORTGAGE OR UNSECURED LOAN

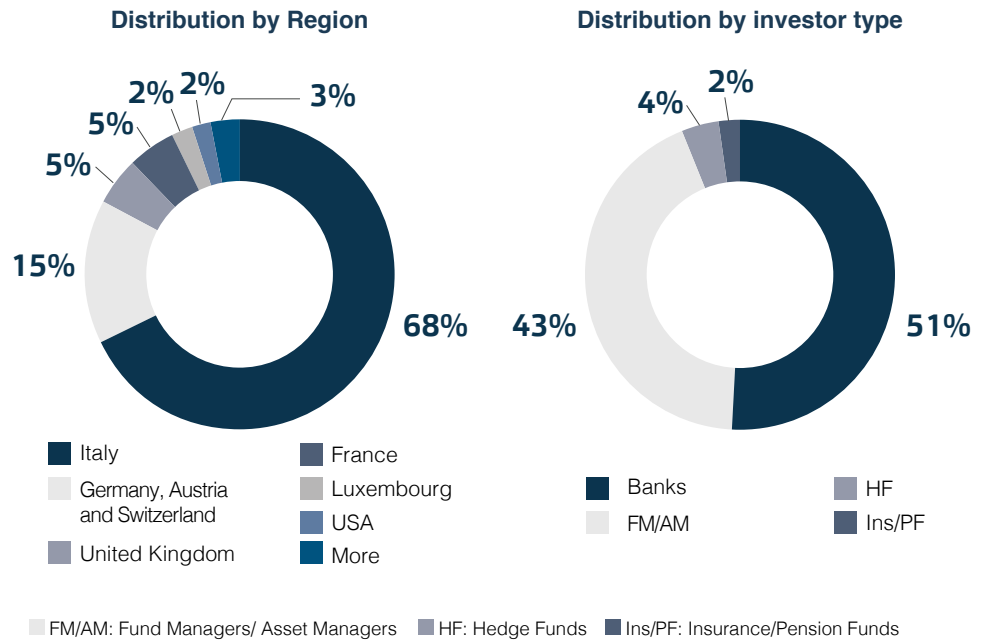
- Renewable energy
- Energy efficiency
- Sustainable mobility
- Circular Economy
- Green buildings

The full ESG product offering is available on the Bank's commercial website at [www.popso.it/next](http://www.popso.it/next)

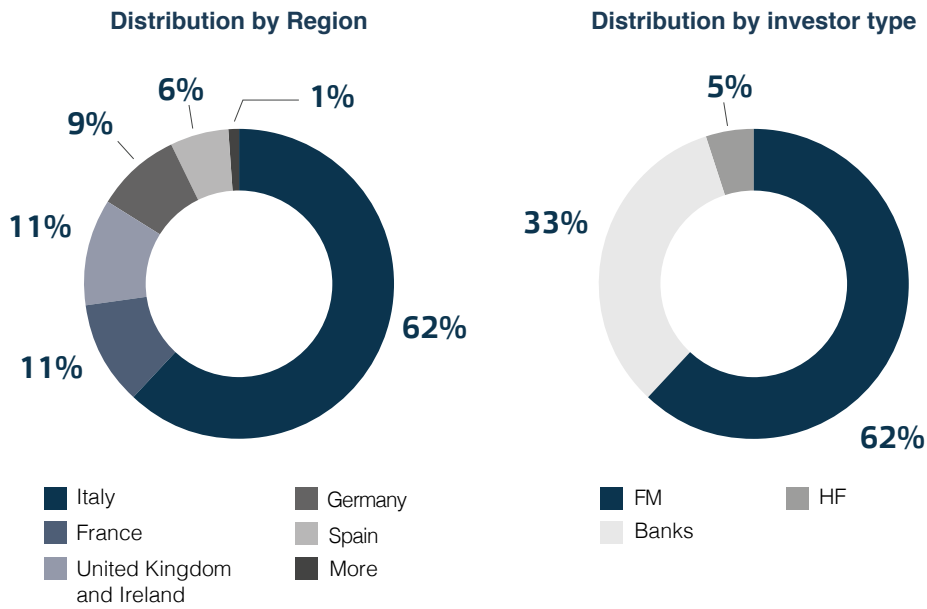


# 05. Green Bond Outstanding

- Year: 2021
- Nominal value: €500 million
- Tenor: 6NC5
- Expiration date: July 13, 2027

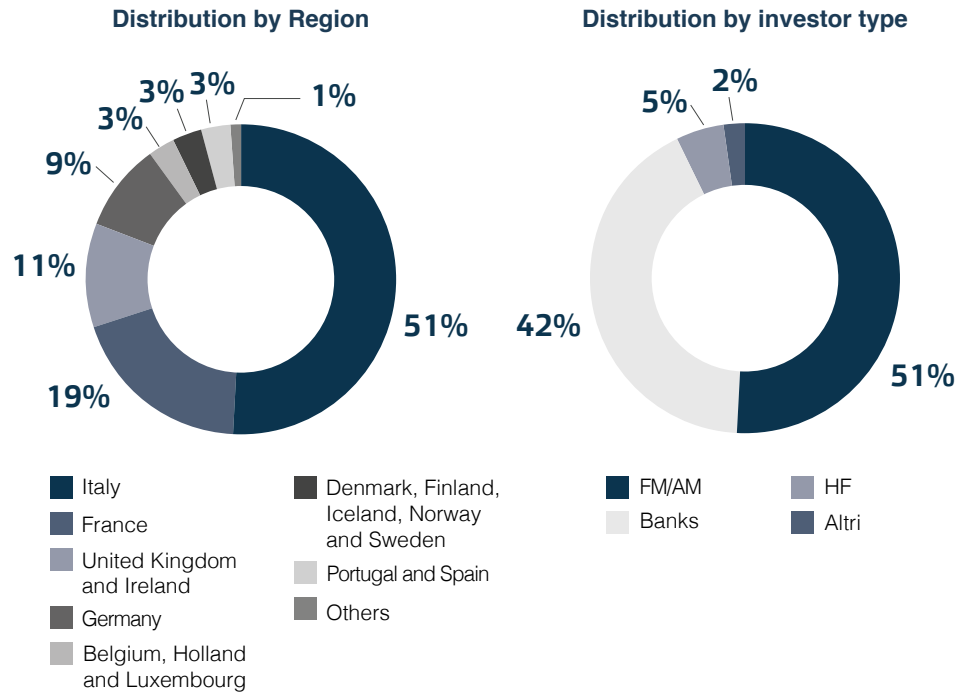


- Year: 2023
- Nominal value: €500 million
- Tenor: 5NC4
- Expiration date: September 26, 2028





- Year: 2024
- Nominal value: €500 million
- Tenor: 6NC5
- Expiration date: June 4, 2030



# Green Bond Framework

# 06.

Within the **BPS Green Bond Framework**, developed in 2021 together with the first issuance and updated in September 2023 in line with the requirements of the ICMA Guidelines, the so-called four pillars are defined, namely:

- 1. how the proceeds**, which must be tied to green projects or companies, will be **used and allocated**;
- 2. the process of selecting and evaluating companies or projects**, which must meet environmental eligibility requirements;
- 3. proceeds management**;
- 4. the reporting** which, through the use of defined metrics, informs about the allocation and environmental impact of the projects for which the proceeds are used.



## The allocation of proceeds

- **Green Building:** loans or assets related to the purchase, construction, renovation of residential and/or commercial buildings that meet high energy efficiency requirements.
- **Renewable energy:** loans related to the purchase, development and operation of infrastructure for renewable energy production.
- **Clean transportation:** loans related to low-carbon transportation activities and the purchase, construction and operation of dedicated low-carbon transportation infrastructure.
- **Energy efficiency:** loans related to goods/activities that contribute to the reduction of energy consumption (e.g., energy-saving lighting or district heating).
- **Environmentally sustainable management of living natural resources and land use:** loans related to activities that contribute to the sustainable management of natural resources and land use (e.g., organic farming or investments to protect protected areas such as regional nature parks).
- **Pollution prevention and control:** loans related to activities that contribute to waste prevention, collection, disposal and recycling.
- **Sustainable water and wastewater management:** loans related to activities that improve water quality, efficiency, distribution and conservation.

The **look-back period** concept is applied to all assets, components of the Bank's portfolio. Specifically, BPS has selected those loans that, in addition to meeting the above environmental eligibility requirements, were disbursed after 01/01/2018.

## Sectors excluded from the Green Bond



<sup>1</sup> from oil, coal, lignite, and tar sands (this also includes energy-efficient technologies that are carbon-intensive or that are fueled by coal or oil)

<sup>2</sup> If from suppliers that do not hold recognized certifications, such as Roundtable on Sustainable Palm Oil (RSPO)



## The role of the BPS Sustainability Management Committee

- **Approves** the Green Bond Framework, and, from time to time, any updates;
- **reviews and validates** the set of eligible assets, that is, assets that can be financed or refinanced through the proceeds of the issue: over the life of the bond, reviews and validates new assets to be included in that set;
- oversees the **internal tracking** of bond issue **proceeds** and monitors the management of raised and temporarily unallocated funds;
- monitors **developments** in the market environment and regulations related to ESG bonds;
- reviews and approves the **allocation and impact reporting** related to the bond (Green Bond Report) produced time to time.

The following is a further classification of financed or re-financed assets:

### GREEN PROJECT

A Green Project is any type of financing whose purpose, indicated in the application and supported by appropriate attached forms, is aligned with one of the eligible categories indicated in the Green Bond Framework. The Green Project segment therefore spans across the different eligible categories indicated in the Green Bond Framework.

### PURE PLAYER

Pure Players are companies that derive more than 90 percent of their revenues from eligible activities. Any type of financing to these companies can be included in this category. The Pure Player segment thus cuts across the various eligible categories outlined in the Green Bond Framework.

### GREEN BUILDING - Mortgages

This segment of the portfolio includes assets related to the purchase of real estate with a high energy class. The precise eligibility criteria are set out in the Green Bond Framework.

### GREEN BUILDING - Super/EcoBonus

This portfolio segment includes all tax credits acquired by the Bank and already in its tax box related to Super/EcoBonus practices. These assets are included as they relate to interventions on properties through which an improvement in their energy efficiency is achieved.





The table below mentions the potential quantitative environmental performance metrics as outlined in the Framework. The list is not meant to be exhaustive; in fact, some additional metrics that are more significant to the characteristics of the *Green Portfolio* under consideration are highlighted in this document.

ELIGIBLE CATEGORIES	POTENTIAL QUANTITATIVE PERFORMANCE METRICS
Renewable energy	GHG emissions avoided (tCO <sub>2</sub> e)
	Installed power capacity (MW)
Energy efficiency	GHG emissions avoided (tCO <sub>2</sub> e)
	Potential energy savings per year (MWh)
Clean transportation	GHG emissions avoided (tCO <sub>2</sub> e)
	New infrastructures built (Km)
Green Building	GHG emissions avoided (tCO <sub>2</sub> e)
	Floor space of green real estate (m <sup>2</sup> )
	Potential energy savings per year (MWh)
	No. of residential buildings belonging to the category of top 15% <i>most carbon efficient</i>
Environmentally sustainable management of living natural resources and land use	Total area financed (ha)
	No. of farms financed
	Volume of farming input avoided (t/year)
Pollution prevention and control	GHG emissions avoided (tCO <sub>2</sub> e)
	Waste diverted from landfill (t)
Sustainable water and wastewater management	Volume of water saved/reduced/treated (m <sup>3</sup> )
	Total population served by the water system



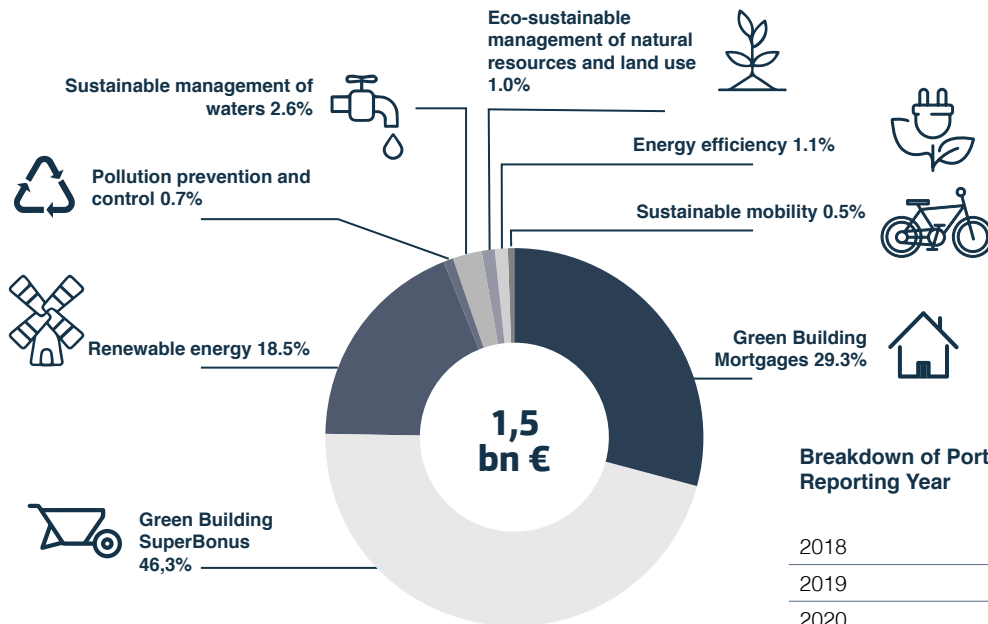
# Green Bond Allocation Report: photograph as of June 30, 2024

# 07.

Already by the end of December 2021, just six months after the issuance of the first Green Bond, the Underlying Portfolio reached the amount of **500 million euros**, well ahead of BPS' commitment to the market. The steady growth of the Portfolio has allowed the Bank to issue **two** more **bonds** aligned with ICMA's Green Bond Principles, both of 500 million, one in September 2023 and the last in May this year.

As of June 30, 2024, the composition of the Portfolio reports a predominance of loans in the "Green Building" sector, split between the 110% SuperBonus component and that of mortgages linked to energy-efficient properties, followed by loans to companies operating in the renewable sector.

- Number of Funding: **7,222**
- Look-back period: **2018**
- Maturity: **7.26 years**
- Average amount: **€ 207,000**
- BPS loans: **€ 1,487 million**
- BPS (SUISSE) financing: **€13 million**



Percentage values calculated on portfolio value

Breakdown of Portfolio by Reporting Year

Reporting Year	million €
2018	59.52
2019	109.75
2020	81.05
2021	192.86
2022	408.95
2023	368.92
2024*	278.95

\*to 30/06/2024



# 08. Green Bond Impact report

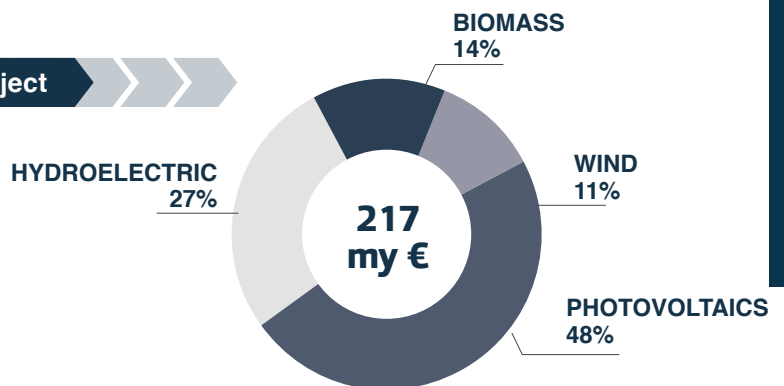
## 1. Green Project and Pure Player

In the management of the Green Bond Portfolio, the Green Project and Pure Player categories group together medium and long term loans granted mainly to SMEs that, due to specific projects or company peculiarities, ask the Bank for financial support to develop activities whose characteristics fall among those indicated in the eligible categories of the Green Bond Framework.



- Renewable energy plants funded in **18** different Italian regions
- Incidence on total allocated: **24.2 %**
- Total amount allocated: **363 million €**
- Number of grants: **383**
- Average maturity: **9.10 years**
- Average amount: **950 thousand €**
- Pure Player Amount: **€ 100 million**
- Green Project Amount: **€ 263 million**
- GHG emissions avoided<sup>1</sup>: **73,415 tCO<sub>2</sub>e**
- Energy produced from renewable sources: **143 GWh<sup>2</sup>**
- Area under organic cultivation: **26 hectares<sup>3</sup>**
- Volume of water distributed: **1.9 million m<sup>3</sup><sup>4</sup>**
- Waste managed: **16,579 t<sup>5</sup>**
- Thermal GWh sold through district heating: **10**
- Annual biomethane production: **5.212 billion Smc**

### Renewable Energy Focus - Green Project



<sup>1</sup> BPS share - calculated for renewable energy production facilities - Further discussion in the Methodology, page 32

<sup>2</sup> BPS share - "Renewable energy" category

<sup>3</sup> BPS share - category "Environmentally sustainable management of living natural resources and land use"

<sup>4</sup> BPS share - "Sustainable water and wastewater management" category

<sup>5</sup> BPS share - "Pollution prevention and control" category



## 2. Green Building – 110% SuperBonus

The **110% SuperBonus** is a form of tax benefit created in 2020 in order to incentivize the **energy upgrading** of existing buildings through a tax credit equal to 110% of the expenditure incurred. Specifically, to qualify for the tax benefit, it is necessary to demonstrate a **two-class energy upgrade** thanks to the renovation work done on the property. Further discussion of this case can be found in the Appendix to the Report.

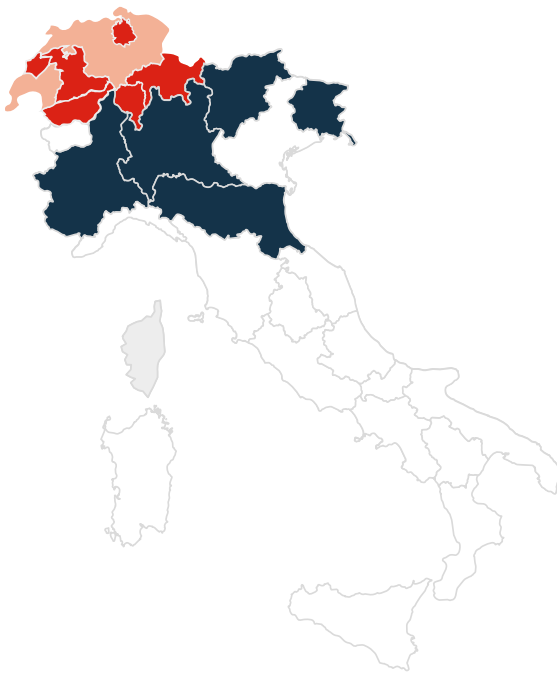
BPS took action from the very beginning to support its customers in this activity by advancing to the customer the tax credit they would be entitled to in the five years following the intervention. As of June 30, 2024, the total amount of tax credit related to SuperBonus exceeds **1,700 million euros**. Of this, **only a portion** is included in the portfolio underlying the Green Bond issue.

- Supporting efficiency upgrades on properties located in all regions of Italy
- Incidence on total allocated: **46.3 %**.
- Total amount allocated: **695 million €**
- Average maturity: **2.8 years**
- Number of transactions: **5,123**
- Average amount: **136 thousand €**
- GHG emissions avoided: **52,490 tCO<sub>2</sub>**
- Savings in primary energy demand: **253,970 MWh**
- Renovated area: **1,303.269 m<sup>2</sup>**



### 3. Green Building – Mortgages

A **mortgage loan** is a form of financing granted for the purchase, renovation, or construction of residential or commercial real estate against the provision of a **mortgage guarantee**. In the Green Bond portfolio, the Bank has included all those loans related to the purchase of Italian and Swiss properties with **high energy performance**.



- Funded the purchase or renovation of energy-efficient buildings found in 5 Italian regions and 6 Swiss cantons (Canton Graubünden, Canton Ticino, Canton Zurich, Canton Bern, Canton Neuchâtel and Canton Valais)
- Incidence on total allocated: **29.3 %**.
- Total amount allocated: **439 million €**
- Average maturity: **15.34 years**
- Number of transactions: **1,715**
- Average cut: **€ 256,000**
- GHG emissions avoided: **5,127 tCO<sub>2</sub>**
- Positive Carbon Impact per million €: **11.5 tCO<sub>2</sub>**
- Total area financed: **286,618 m<sup>2</sup>**
- Funding to class A buildings<sup>11</sup>: **337 million €**
- Funding to Minergie-certified buildings: **13.9 million CHF**

## MINERGIE®

**Minergie** has been the Swiss construction standard for new, modern, energy-efficient buildings and environmental impacts since 1998. The label is supported by the business sector, cantons and the Swiss Confederation and is protected against misuse.

Minergie buildings have very low energy requirements, are heated without fossil energy, and meet their energy needs in whole or in part through self-generation.

<sup>11</sup> Buildings in class A, A+, A1, A2, A3, A4 are considered





# The energy of the future is sustainable: the importance of renewables

# 09.

Natural resources such as sunlight, wind, water movement and biomass are valuable sources of energy that can regenerate naturally, ensuring a secure and lasting energy supply without compromising the ability of future generations to meet their energy needs.

The power sector accounts for the largest share of GHG emissions in the European Union (75 percent of EU emissions<sup>12</sup> in 2021) through an energy mix of broad fossil composition (up to 39 percent of electricity generated from coal, gas or other fossil fuels<sup>13</sup>).

Growing awareness of climate change and finite resources makes it imperative to shift to an energy system that reduces dependence on limited and highly emissive fossil fuels and instead favors the adoption of clean and renewable energy sources such as solar, wind, hydro and geothermal, with the goal of ensuring more sustainable, secure and efficient energy production and consumption.

In this context, renewable energies are placed at the center of international energy policies as essential elements for a sustainable future: indeed, the European Union's desire to achieve climate neutrality by 2050 is necessarily embodied in the adoption of programs and legislation aimed at the energy sector, including the European Renewable Energy Directive (RED II)<sup>14</sup>, which sets binding targets for the share of renewables in the energy mix by 2030, and the REPowerEU plan, published by the European Commission in 2022, which aims to increase the renewable share in the EU's final energy consumption (from 40 percent to 45 percent by 2030) by significantly increasing the production capacity of offshore solar and wind systems.<sup>15</sup>

With reference to the national landscape, Italy's Net Zero strategy envisions achieving energy consumption based predominantly on low-carbon sources (85-90%) by 2050<sup>16</sup>. Dedicated to this commitment are government funds for the expansion of renewable energy and the definition of a series of goals articulated in the Integrated National Plan for Energy and Climate, including the gradual *phase-out* of coal (2025) and the achievement of ambitious shares of renewable energy in final energy consumption (40 percent by 2030) and in electricity production (65 percent by 2030).<sup>17</sup>

<sup>12</sup> European Commission: Questions and Answers - Making our energy system fit for our climate targets

<sup>13</sup> EMBER: European Electricity Review 2023

<sup>14</sup> European Commission: Renewable Energy Directive

<sup>15</sup> European Commission: REPowerEU

<sup>16</sup> European Commission: Executive Summary

<sup>17</sup> Ministry of Environment and Energy Security: National Integrated Energy and Climate Plan (2023)



The global transition to a clean and resilient energy system is therefore critical to ensuring the balance of our future, and this process requires adequate financial support that protects both individual investments and the long-term strategies of companies and governments. Financial institutions, in this context, play an essential role as they are responsible for supporting and incentivizing the transformation to a sustainable energy system that respects the environment, promotes energy security, and promotes the economic well-being of the entire planet.

## Our support for companies in the sector

Banca Popolare di Sondrio is actively engaged in the promotion of renewable energy, offering a range of financial services and products dedicated to supporting companies and citizens on the path to energy transition.

Since 2021, the Bank has introduced and expanded to this end its next product line, a range of financial solutions designed to meet the sustainability needs of individuals and businesses, including emerging financing products specifically geared to support the adoption of renewable energy technologies and promote a transition to sustainable energy solutions.

- The product **next - Green Energy**<sup>18</sup> is a loan created to promote the adoption of more efficient and environmentally friendly energy solutions that can be used, for example, to finance the installation of renewable energy systems, such as photovoltaic panels, solar and mini-wind power plants;
- The products **next - Bioenergy**<sup>19</sup>, **next - Wind**<sup>20</sup>, **next - Photovoltaic**<sup>21</sup> e **next - Hydroelectric**<sup>22</sup> are loans designed for companies wishing to invest in sustainable energy production systems and are used to support the construction and expansion of related facilities, helping companies reduce their environmental impact through the adoption of renewable technologies.



<sup>18</sup> "Next for the environment - green energy" website of Banca Popolare di Sondrio

<sup>19</sup> "Next for the environment - bioenergy" site of Banca Popolare di Sondrio

<sup>20</sup> "Next for the environment - wind power" site of Banca Popolare di Sondrio

<sup>21</sup> "Next for the environment - photovoltaics" site of Banca Popolare di Sondrio

<sup>22</sup> "Next for the environment - hydropower" site of Banca Popolare di Sondrio

## Case studies

### REPOWER RENEWABLE SPA

**Repower Renewable** is a company of the Repower Italia Group, one of the leading players in the Italian market in the sale of electricity, natural gas, and energy efficiency and sustainable mobility services to SMEs.

The Group actively supports the implementation of the energy transition by advising the more than **30,000 companies** that make up its client portfolio in Italy.

This approach sees the activities of the subsidiary Repower Renewable as a key focus, particularly in the development and operation of new **electric generation from renewable sources**. Repower Renewable to date has **120 MW** of installed renewable capacity and a major development plan. This includes the development of the photovoltaic field in Melfi (PZ), an important plant that is well represented by the key numbers shown alongside.



Key project numbers:

**15 Mln€**  
Total investment of the initiative

**15 MW**  
Overall power of the project

**25 GWh**  
Average annual production

**16 ettari**  
Reuse of an industrial area abandoned

Key project numbers:

**10 Mln€**  
Investment  
total initiative

**5.56 MW**  
Installed power

**14,385,000 Kwh**  
Average annual  
production

**9,700,000 Kg CO<sub>2</sub>**  
Emissions  
avoided per for  
each year of  
production

**2.6 hectares**  
Reuse of an  
industrial area  
abandoned

## DAS WIND – PARCO EOLICO MARRUBIU

**Das Wind Srl** is a company that was started by a few entrepreneurs to develop and build “utility scale” renewable energy plants.

The development of the economy of the territory, as well as the recovery of areas destined for abandonment, are priority aspects for Das Wind, so much so that in 2015 the company obtained authorization to build a wind power plant in a disused area of the municipality of Marrubiu (Oristano): thanks to this initiative today that area can host not only other renewable energy plants, both photovoltaic and storage, but also new projects.

The generating plant consists of a single wind turbine with a total installed capacity of 5.56 MW.

Inside the wind turbine are all the plant components (generator, inverter, transformer) that enable the transformation of wind energy into alternating current electricity that is fed into the grid via the MT substation located in the immediate vicinity of the tower, minimizing plant losses.

The Das Wind wind farm has recently been completed and will go into operation in October 2024.



## AGROBIOENERGIA DELL'ISOLA SOCIETÀ AGRICOLA SRL

**Agrobioenergia dell'Isola Società Agricola Srl**, operating nearby Bergamo, is an innovative start-up, established in 2022 with the aim of **valorizing agricultural by products** from the area by converting them into clean energy and reducing their environmental impact.

In 2023, Agrobioenergia obtained authorization for the construction of an agricultural biomethane plant by being among the first 43 Italian agricultural companies to be eligible for benefits under the Biomethane 2022 Ministerial Decree, with funds from the PNRR.

The plant, once in operation, will represent a true excellence, both in terms of innovation and sustainability: in fact, it will be able to produce about **1.3 million m<sup>3</sup> per year of biomethane**, equivalent to the average annual consumption of about 1,000 households in northern Italy, and avoid the emission into the atmosphere of about 3,000 tons of CO<sub>2</sub>. In addition, the plant will be able to digest about 22,000 m<sup>3</sup> of sewage and about 13,000 tons of manure from livestock farms operating in the Isola Bergamasca, a true virtuous example of circular economy. The plant will produce positive impacts for both the environment and the community, thanks not only to the production of biomethane, but also to the transformation of livestock manure into odorless products with a consequent virtuous effect on air quality.



The biomethane plant under construction in Isola Bergamasca

Key project numbers:

**150 m<sup>3</sup>h**  
Biomethane products

**1.300.000 m<sup>3</sup> year**  
Biomethane products, equivalent to average annual consumption Of about 1,000 families in northern Italy

**3,000 tCO<sub>2</sub>**  
Save for year

**22.000 m<sup>3</sup> year and about 13,000 t year**  
Processed into digestate with low odor impact



I numeri chiave  
del progetto:

**2.18 GWh**  
Production  
per year

**408 TEP**  
Save per year

**4 Mln€**  
Investment

**980**  
tCO<sub>2</sub> e/year  
Avoided

## IMPIANTO IDROELETTRICO F.I.P. S.R.L. An investment in the sustainable future

**F.I.P. s.r.l.**, a joint venture company of Zecca Prefabbricati S.p.A and Bringsol S.r.l, in February 2024 launched a **cutting-edge renewable energy** project involving the construction of a hydroelectric plant in the municipality of Taceno (Lecco), which uses the waters of the Pioverna stream in Valsassina for its operation. This run-of-river plant uses a single 9-meter head of water with an average flow rate of 3224 l/s to generate clean energy. The water is captured from a bedrock grate at Terme di Tartavalle at an elevation of about 421 m above sea level and conveyed in a penstock with a length of about 520 m and diameter of 1.80 m to the turbine located inside the central building. As the vertical-axis kaplan turbine rotates, it converts the power of water into mechanical energy, which is then converted into electricity by the generator.

In general, all works are underground except for the central building, thus preserving the natural beauty of the site in favor of **environmental sustainability**.

Some of this energy is also directly used to power some public charging stations for electric cars, promoting sustainable mobility.

This plant is a positive example of how natural resources can be used efficiently and sustainably, contributing significantly to reducing pollutant emissions and supporting low-emission technologies.



# Methodology

## Calculation of environmental impacts for Pure Player and Green Project

For the purpose of calculating environmental impacts with reference to Renewable Energy financing, documents attached to the loan file and related to the facilities are analyzed, or, if available, data made public by the counterparties (e.g., on the website). If technical data are not available, a request for these is made to the customer through the relevant branches. The required data are the total installed capacity (MW) and annual energy production (MWh) needed to calculate the avoided CO<sub>2</sub> emissions. The same process applies for financing related to other eligible categories and with different metrics.

The avoided emissions indicator was developed in line with the methodology defined in the ICMA Handbook: *Harmonized Framework for Impact Reporting*.

The estimate of avoided emissions, due to renewable energy production plants, is based on an indicator on an annual basis and carried out from a benchmark value, developed considering the electricity produced by the plants as originating from the generic electricity grid. The emission factor applied, relative to the Italian national production fuel mix, is provided in the document "Emission factors for electricity production and consumption in Italy" published by ISPRA. Specifically, the emission factor for 2023 corresponding to 257.2 gCO<sub>2</sub> e/kWh, which takes into account, the climate impact of the climate-altering gases CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O.

The calculation of avoided emissions for renewable energy projects does not include processes characterized by the use of fuels of biomass origin. Although the plants involved present the emission of climate-changing gases into the atmosphere, the biogenic and non-fossil nature of the carbon involved ensures climate neutrality, in accordance with what is defined under the United Nations Framework Convention on Climate Change (UNFCCC) for accounting atmospheric emissions of carbon dioxide. In this context, biomass is a carbon-neutral source, as the CO<sub>2</sub> emitted during combustion is equal to that absorbed during the life of the plant by the process of photosynthesis.

The definition of the share of emissions attributable to BPS is calculated as per PCAF Guidelines: *The Global GHG Accounting and Reporting Standard for the Financial Industry*.

For Green Projects, the impact countable to BPS is proportional to the ratio of the amount of financing granted to the counterparty for an eligible project to the total cost of the investment made.



$$\text{Financed emissions} = \sum_i \text{Attribution factor}_i \times \text{Emissions}_i$$

(with  $i$  = borrower or investee)

↓

$$\frac{\text{Outstanding amount}_i}{\text{Total equity} + \text{debt}_i}$$

## Calculation of CO<sub>2</sub> avoided for Buildings

With reference to the Super Bonus segment, the calculation of the CO<sub>2</sub> avoided per calendar year is inferred indirectly by comparing the overall energy performance indicators of the building before and after energy upgrading intervention, as can be obtained from the relevant Conventional Energy Performance Certificates attached to the Super Eco-Bonus 110% credit transfer files.

CO emission factors<sub>2</sub> are determined from the average primary energy conversion coefficients, published annually by ARERA and ISPRA.

With reference to the Green Building - Mortgage Loans segment: the figure about the avoided CO<sub>2</sub> was calculated by means of summing up the differences between the actual emissions of the properties in the portfolio and the average emissions of buildings in the same region of ownership and of the same size.



# Appendix

## 110% Superbonus

The Italian Parliament, on July 17, 2020, enacted the D.L.34/2020 government bill into law: the so-called Decreto Rilancio D.L.34/2020 so-called Relaunch Decree, implements new urgent measures to support economic and labor policies.

For more than 20 years in Italy there has been a system of tax benefits available to those who undertake building and plant upgrades on buildings for residential use or similar.

In particular, the new regulatory system has increased the rate of the tax deduction, raising it to 110% of the expenditure incurred, in relation to the execution of energy upgrading works on existing buildings, which ensure reductions in climate emissions related to indoor air conditioning services, such as configuring an improvement of two energy classes (classification under Directive 2010/31/EU). In these cases, the incentive mechanism provides that the contractor may, as a rule upon completion of the work, benefit from a tax credit of up to 110% of the expenditure incurred.<sup>23</sup> This credit can be offset by the claimant in the next five tax returns<sup>24</sup>, or, alternatively, it can be transferred in whole or even in part to a third party, including financial intermediaries, who in turn can compensate for it fiscally.

There are two different credit transfer mechanisms:

- Direct transfer: the customer finances the work and accrues the tax credit, which he can offset for tax purposes or transfer to the Bank.
- Indirect “invoice discount” transfer: the company offers an invoice discount, up to 100% of the labor cost and indirectly benefits from the tax credit, which it can offset for tax purposes or transfer to the Bank.

The Bank has initiated operations that allow the customer to pre-finance, with a commitment to surrender the tax credit upon completion of the work.

Basically, there are two approaches:

- Frozen credit: The Bank agrees to withdraw the tax credit accrued by the client, upon completion of the work, without any advance cash (the client or company finances them with its own funds).
- Committed Credit: The Bank pre-finances the customer/company with a credit not exceeding the corresponding credit offered for the withdrawal of the tax credit (e.g., Credit [€] x Price).

In both cases, the state will finance the customer benefiting from the tax credit and transfer it to the Bank, but only in the second one will the Bank advance an amount that enables the customer/business to finance the intervention.

<sup>23</sup> A reduction of the “Super Bonus” tax deduction rate to 90 percent is provided for interventions initiated after Nov. 25, 2022 and through 2023

<sup>24</sup> Starting from the expense year 2022 - the Super Bonus credit is compensable by the transferee purchaser in 4 annual installments following the year of expense incurred



# Independent Auditor's Report



Banca Popolare di Sondrio S.p.A.

Independent Auditors' report on the Green Bond Report 2024







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## Independent Auditors' report on the Green Bond Report 2024 (Translation from the original Italian text)

To the Board of Directors of Banca Popolare di Sondrio S.p.A.

We were engaged to perform a limited assurance engagement on the accompanying Green Bond Report 2024 of Banca Popolare di Sondrio S.p.A. (the "Company") as of 30 June 2024 ("Green Bond Report 2024"), prepared for the purposes provided by the Company's Green Bond Framework.

### Management's responsibility

Management of Banca Popolare di Sondrio S.p.A. is responsible for the preparation of the Green Bond Report 2024 in accordance with the criteria provided by the Company's Green Bond Framework, and for the internal controls as management determines is necessary to enable the preparation of the Green Bond Report 2024, that is free from material misstatement, whether due to fraud or error.

### Independence and quality control

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

Our firm applies International Standard on Quality Management 1 (ISQM Italia 1) and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### Independent Auditors' responsibility

Our responsibility is to express a conclusion on the Green Bond Report 2024 based on our limited assurance engagement. We conducted our limited assurance engagement in accordance with the provisions of the standard "International Standard on Assurance Engagements 3000 – Assurance Engagements other than Audits or Reviews of Historical Financial Information" ("ISAE 3000 revised") issued by the International Auditing and Assurance Standards Board. This standard requires that we plan and perform our procedures to obtain limited assurance whether the Green Bond Report 2024 is free from material misstatement.

The procedures we performed were based on our professional judgment and included inquiries, primarily of persons responsible for the preparation of the Green Bond Report 2024, inspection of documents, recalculation, agreeing or reconciling with underlying records and other evidence-gathering procedures that are appropriate in the circumstances.

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In particular, we performed the following procedures:

- we had meetings with the staff of the Company responsible of the preparation of the Green Bond Report 2024 in order to understand the characteristics of the projects and entities financed and refinanced through the green bonds, issued as of the Green Bond Report 2024 ("green bonds issued"), with respect to the provisions of the Green Bond Framework and the procedures and management systems adopted by the Company;
- we verified on a sample basis the application of the eligibility criteria to projects and entities financed and refinanced through the issued green bonds provided by the Green Bond Framework;
- we verified on a sample basis the tracking of the allocation of funds raised through the issued green bonds to finance and refinance projects and entities as provided by the Green Bond Framework;
- we verified on a sample basis the processes of collection, processing and consolidation of data relating to the allocation indicators reported in the Green Bond Report 2024;
- we verified on a sample basis the process of transmission, collection, processing and consolidation of data relating to the environmental impact indicators reported in the Green Bond Report 2024;
- we verified on a sample basis the methodologies and references adopted for the development of the environmental impact indicators reported in the Green Bond Report 2024.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement conducted in accordance with ISAE 3000 revised and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in a reasonable assurance engagement.

### Conclusion

Based on the procedures we have performed, nothing has come to our attention that causes us to believe that the Green Bond Report 2024 as of 30 June 2024 of Banca Popolare di Sondrio S.p.A. is not prepared, in all material respects, in accordance with the criteria provided by the Green Bond Framework.

Milan, 15 October 2024

EY S.p.A.  
Mauro Iacobucci  
(Auditor)

*This report has been translated into the English language solely for the convenience of international readers.*



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