



# OP Mortgage Bank Green Covered Bond Report

March 2025





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# 1 Introduction

OP Financial Group (“OP” or “the Group”) is the leading financial services provider in Finland, offering banking and insurance services to its customers. OP operates in three business segments: Retail Banking, Corporate Banking, and Insurance. Its cooperative nature, extensive service network across Finland and true customer focus make OP a unique player in many ways, and the Group recognizes its significant impact on the society. OP’s mission is to promote sustainable prosperity, security, and the well-being of its owner-customers and operating region. The core values – people first, responsibility, and succeeding together – guide daily work.

Building on over 120 years of support for Finnish society, OP’s aim is to be active in responsibility and sustainability within its sector in Finland. As a cooperative banking group, OP Financial Group’s mission and values bind it to take care of the operating region – both locally and nationwide. One of OP’s core values is Responsibility, which is also embedded into OP’s strategy as Responsible Business is one of the Group’s strategic priorities. OP’s Sustainability Programme<sup>1</sup>

considers Environmental, Social, and Governance (ESG) aspects of its operations.

OP is actively working to reduce emissions in its own operations and across its loan and investment portfolios, and the Group has set the following targets:

Regarding its operations,

- › OP will become carbon neutral in its operational emissions (Scope 1 & 2) by 2025

Regarding its loan and investment portfolios, OP has set the following targets:

- › 25% reduction in corporate loan portfolio emissions by 2030 compared to 2022
- › 65% of OP funds’ direct equity and bond holdings in material sectors are aligning to net zero, aligned to net zero or net zero by the end of 2028
- › 75% of OP funds’ direct equity and bond holdings in material sectors are aligning to net zero, aligned to net zero or net zero by the end of 2030
- › Carbon neutral corporate loan portfolios by 2050

- › Carbon neutral funds managed by OP Asset Management Ltd and OP Fund Management Company Ltd by 2050

OP has also set out sector-specific emissions reduction targets for 2030 from the 2022 levels. These three sectors account for a total of 91% of the emissions in OP’s loan portfolio. The targets are:

- › In home loans: 45% reduction of emission intensity
- › In energy production: 50% reduction of emission intensity
- › In agriculture: 30% reduction of absolute emissions

OP Financial Group is involved in climate action initiatives and has signed international commitments guiding its operations. For more information, see our Commitments and principles<sup>2</sup>. OP actively participates in sustainable finance working groups to contribute towards the advancement of the best practices and standards in the area of sustainable finance.

OP Mortgage Bank (OPMB) is the covered bond issuing entity of OP Financial Group. Together with OP Corporate Bank plc, its role

is to raise funding for OP Financial Group from money and capital markets. OPMB has supported OP’s value-based strategy implementation and has contributed to its mission by issuing green covered bonds under the Green Covered Bond Framework published in 2020<sup>3</sup>. OPMB contributes to sustainable economy also by playing an active role in the European Covered Bonds Council’s (ECBC) Energy Efficient Mortgages Initiative (EEMI).

By the end of 2024, OPMB has issued two Green Covered Bonds under the Euro Medium Term Covered Note (EMTCN) Programme, in March 2021 and in April 2022. The amount equal to the proceeds from both bonds is allocated to OP Financial Group’s mortgages that finance energy efficient residential buildings.

<sup>1</sup> [OP Financial Group’s Sustainability Programme](#)

<sup>2</sup> [OP Financial Group’s Commitments and principles](#)

<sup>3</sup> [OPMB Green Covered Bond Framework 2020](#)





## 2 Project Evaluation

Green Projects refer to energy efficient buildings and apartments (“Green Buildings”) that serve as collaterals for mortgages in Finland and meet the criteria of the Green Covered Bond Framework. To identify eligible Green Projects, OPMB utilizes data from various sources. The primary method to determine eligible Green Projects is using the energy performance certificates (EPCs) of buildings securing the mortgages in the cover pool. In cases where the EPC is not available or cannot be linked to the collateral, the secondary approach is to utilize statistical modeling. Buildings that are identified to use fossil fuels as their main heating source are automatically excluded.

OPMB manages the mortgages that are used to finance Green Projects, and serve as collateral for the Green Covered Bonds, by tagging the eligible Green Collateral in the existing cover pool. OPMB is responsible for selecting the eligible collateral, keeping track of them, and reviewing the pool regularly as part of the regular pooling process and managing the net proceeds.





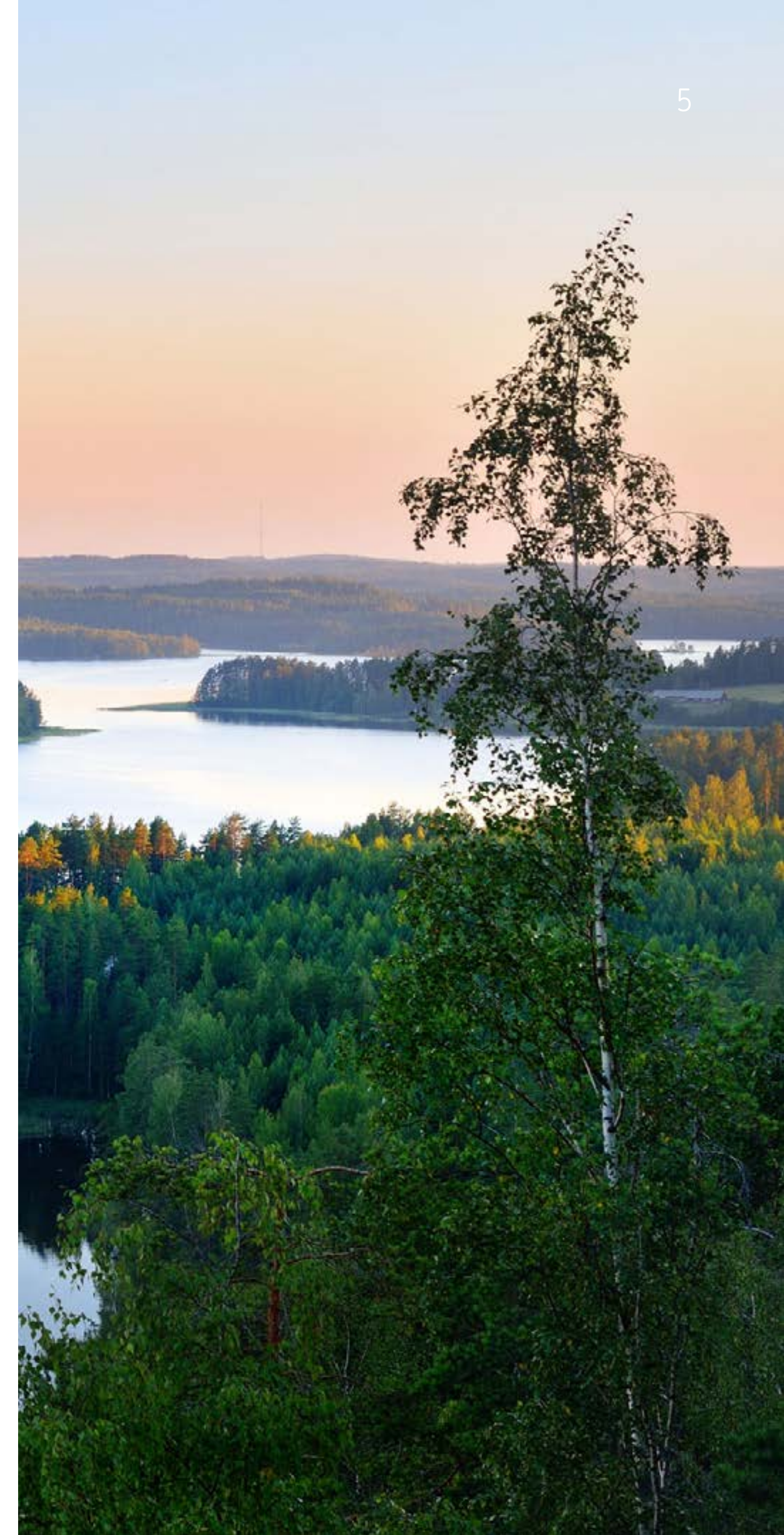
## 3 Issued Green Covered Bonds

### Green Covered Bond 2021

Issuer	OP Mortgage Bank
Rating	Aaa by Moody's AAA by S&P
ISIN	XS2324321368
EMTCN Series Number	26
Nominal Amount	EUR 750 million
Issue Type	Covered Bond, under the OPMB Green Covered Bond Framework 2020
Use of Proceeds	Green buildings
Pricing Date	18.3.2021
Issue Date	25.3.2021
Maturity Date	25.3.2031
Coupon (Annual)	0.05%
Listing	Euronext Dublin
Second Party Opinion (SPO)	Sustainalytics

### Green Covered Bond 2022

Issuer	OP Mortgage Bank
Rating	Aaa by Moody's AAA by S&P
ISIN	XS2465142755
EMTCN Series Number	27
Nominal Amount	EUR 1,000 million
Issue Type	Covered Bond, under the OPMB Green Covered Bond Framework 2020
Use of Proceeds	Green buildings
Pricing Date	29.3.2022
Issue Date	5.4.2022
Maturity Date	5.10.2027
Coupon (Annual)	1.00%
Listing	Euronext Dublin
Second Party Opinion (SPO)	Sustainalytics









# 4 Use of proceeds

As identified in the Green Covered Bond Framework, Green Projects refer to green buildings and apartments that serve as collaterals for mortgages in Finland. Hence, OPMB intends to allocate the proceeds from the Green Covered Bonds to a portfolio of new and existing collateral for mortgages that are tagged as green in OPMB's cover pool (under the EMTCN Programme) and thus meet the use of proceeds eligibility criteria. These Green Projects fall under the International Capital Market Association (ICMA) Green Bond Principles' (GBP) eligible sector "Green Buildings". The use of proceeds is presented in the table below (source: OP Mortgage Bank Green Covered Bond Framework, November 2020).

Eligible sector	NACE Code	OPMB Green Covered Bond Eligibility Criteria	Mapping to UN SDGs
Green Buildings	Acquisition and ownership: NACE code L68 "Real estate activities".	<p>Green buildings that serve as collaterals for mortgages meeting the following criteria:</p> <ol style="list-style-type: none"> <li>1. Acquisition and ownership: Buildings built before 2021 energy performance must be among top 15% of similar stock (in terms of number of buildings), buildings built after 2021: primary energy demand 20% lower than NZEB (Nearly Zero Energy Buildings) requirements. Primarily, existing Energy Performance Certificates (EPCs) are used for screening and in case EPC information cannot be linked to a collateral, the secondary approach will be statistical modeling. EPCs' energy label must be A or B (if issued under 2018 legislation) or equivalent (if issued under 2013 legislation). The threshold (for energy label) will be adjusted as necessary in order to fulfil EU Taxonomy Eligibility Criteria.</li> </ol>	 <p>7.2. By 2030, increase substantially the share of renewable energy in the global energy mix</p> <p>7.3. By 2030, double the global rate of improvement in energy efficiency</p>



<p>Green Buildings</p>	<p>Construction of new buildings: NACE codes F41.1 - Development of building projects and F41.2 - Construction of residential and non-residential buildings.</p> <p>Building renovation: NACE codes F41.2 - Construction of residential and non-residential buildings and F43 - Specialised construction activities.</p> <p>Individual measures and professional services: NACE codes F43 - Specialised construction activities and M - Professional, scientific and technical activities.</p>	<p>2. Construction of new buildings: primary energy demand 20% lower than NZEB requirements. (for buildings built from 2021 onwards, for buildings built before YE2020 the top 15% criteria is applied).</p> <p>3. Building renovation: complies with relevant local “major renovation” regulations (based on the Energy Performance of Buildings Directive, EPBD) or delivers 30% energy savings.</p> <p>4. Individual measures and professional services: list of eligible measures and services with individual criteria as outlined in the Taxonomy.</p>	 <p>11.6. By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management</p>
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### Assets Tagged as Green in the Cover Pool

As of 31 December 2024, the following number of mortgages were tagged as green in OPMB’s cover pool under the EMTCN Programme.

The mortgages have been identified using the ‘Acquisition and ownership’ and ‘Construction of new buildings’ criteria of the Framework.

Green Building Portfolio	Cover pool under the EMTCN Programme
Total loan balance	€2,792,117,077
Number of mortgages	21,286
Green LTV <sup>4</sup>	58%
Eligibility for green bonds	100%
Allocated amount	€1,750,000,000
Building area	2.1 million m <sup>2</sup>

The average time from loan origination, the time until maturity and the loan period are presented in the following table. All numbers have been weighted by loan balances.

Time from origination	5.0 years
Time until maturity	18.7 years
Loan period	23.8 years

<sup>4</sup> Weighted average indexed loan-to-value as of 31 Dec 2024. Loan-to-value is calculated by dividing the loan balances by the sum of the values of loans’ all Green Collateral.





## 5 Estimated Environmental Impacts

The impacts are reported in accordance with the Green Covered Bond Framework where the impact metrics for Green Buildings based on the ICMA Guidelines have been identified. Avoided energy consumption and CO<sub>2</sub> emissions are used as impact metrics. Reporting is on an aggregated level, but the impacts have been calculated mortgage-by-mortgage. The primary data source is the national EPC register<sup>5</sup> data (non-public side) and statistical modelling has also been used if the EPC cannot be linked to the collateral.

It should be noted that the calculated avoided energy consumption and emissions are sensitive to the calculation methodology and used assumptions concerning data. All reported impacts are calculated for a full calendar year regardless of how long the mortgages have been in the cover pool.

### Benchmark Energy Consumption

Benchmark specific energy consumption (kWh/m<sup>2</sup>) is the average normalized specific energy consumption of the Finnish residential building stock. Energy consumption data is retrieved from Statistics Finland<sup>6</sup>. The data is as of 2023, since this is the most recent data available at the time of the impact calculations. In Finland the energy consumption of buildings is considerably affected by the average temperature of the year. Therefore, the energy consumed by the heating of spaces must be normalized for the average temperature of the year to be representative of an average year. This is done by using heating degree days retrieved from the Finnish Meteorological Institute<sup>7</sup> and formulas presented by Motiva Oy<sup>8</sup>. Finally, residential building area is retrieved from Statistics Finland<sup>9</sup> to calculate the specific energy consumption of the residential building stock in Finland. The average specific energy consumption of the residential building stock in Finland is calculated to be 199 kWh/m<sup>2</sup> per year.

### Energy Consumption of Collaterals

The specific energy consumption of a collateral is calculated from data from the Finnish EPC register, if the EPC can be linked to the collateral. In cases where the EPC does not exist, or it cannot be linked to the collateral, OPMB utilizes statistical modelling of the specific energy consumption.

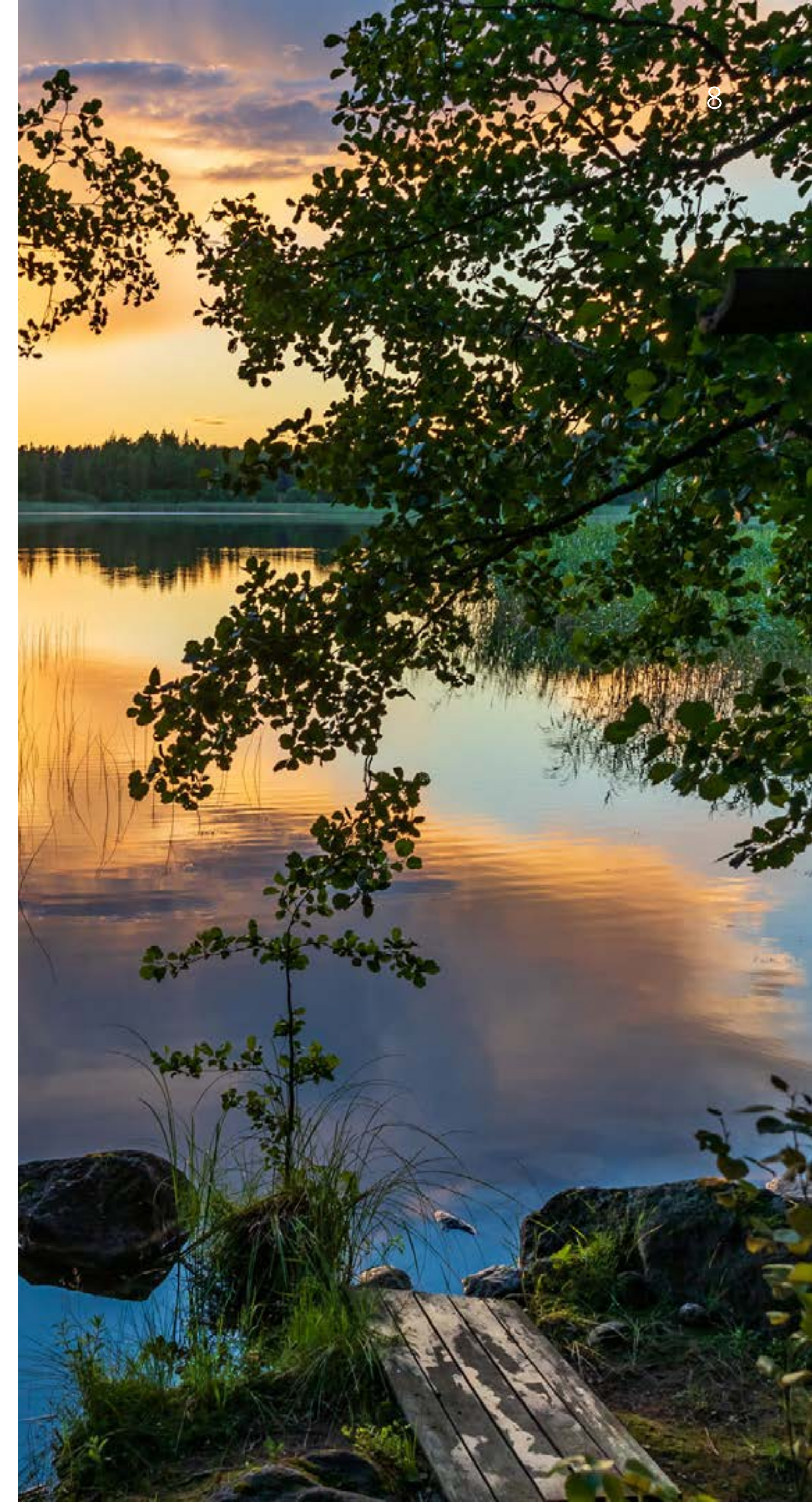
<sup>5</sup> [Finnish EPC register](#) (in Finnish)

<sup>6</sup> [Statistics Finland](#)

<sup>7</sup> [Finnish Meteorological Institute](#) (in Finnish)

<sup>8</sup> [Motiva](#) (in Finnish)

<sup>9</sup> [Statistics Finland](#)







## Avoided Energy Consumption

The avoided energy consumption of a Green Collateral is calculated as follows:

$$\text{Avoided\_Consumption}_{\text{collateral}} = (\text{Specific\_Consumption}_{\text{Benchmark}} - \text{Specific\_Consumption}_{\text{collateral}}) * \text{Area}$$

And the avoided energy consumption of a Green Mortgage is calculated in proportion to OP Financial Group's share of financing as follows:

$$\text{Avoided\_Consumption}_{\text{Mortgage}} = \text{Avoided\_Consumption}_{\text{collateral}} * \frac{\text{Loan\_Balance}_{\text{Mortgage}}}{\text{Current\_Value}_{\text{collateral}}}$$

Loan balances and current values of collateral are as of 31 December 2024.

The reported avoided energy consumption of the Green Covered Bond eligible portfolio is the sum of avoided energy consumptions of individual Green Mortgages in the portfolio.

## Avoided CO<sub>2</sub>-Emissions

The average CO<sub>2</sub>-emissions per energy consumed (gCO<sub>2</sub>/kWh) is calculated using emission factors from different energy sources and their shares of the total normalized energy consumption of residential buildings in Finland as follows:

Energy source	Share of normalized energy consumption	CO <sub>2</sub> -emission factor (gCO <sub>2</sub> /kWh) <sup>10</sup>
Electricity	35%	191
District heat	29%	85
Biofuels	21%	0
Heat pumps, ambient energy	13%	0
Light fuel oil	1%	248
Natural gas	0.2%	200
Peat	0.02%	349
<b>Weighted total</b>		<b>95</b>

The average CO<sub>2</sub>-emissions per energy consumed in Finnish residential buildings is thus 95 gCO<sub>2</sub>/kWh. Avoided CO<sub>2</sub>-emissions of the portfolio are calculated using this number as follows:

$$\text{Avoided\_Emissions}_{\text{portfolio}} = \text{Avoided\_Consumption}_{\text{portfolio}} * \text{Emission\_Factor}$$

<sup>10</sup> Sources of data for CO<sub>2</sub>-emissions factors:

[Peat, oil, gas: Statistics Finland](#)

[District heat: Finnish Energy](#) (in Finnish)

[Electricity: Nordic Public Sector Issuers](#)

CO<sub>2</sub>-emission factor for renewable energy sources is assumed to be 0 gCO<sub>2</sub>/kWh.





## Environmental Indicators of Eligible Green Mortgages

	Final energy use		Carbon reductions	
	kWh/m <sup>2</sup> p.a. <sup>11</sup>	% of energy use avoided <sup>12</sup>	avoided energy use p.a. (MWh)	tonnes of CO <sub>2</sub> equiv. avoided p.a.
Eligible Green Mortgages in cover pool, OP's financing share	109	45%	92,000	8,800
Outstanding Green Covered Bonds (€1,750 million)			58,000	5,500
Per €1 million invested in OPMB's Green Covered Bonds			33	3.1

The avoided energy use per €1 million invested has decreased from the previous year due to lower benchmark energy consumption (avoided energy use 2023: 34 MWh).

The avoided CO<sub>2</sub> equivalent emissions per €1 million invested have decreased significantly from the previous year due to lower benchmark energy consumption and much lower benchmark CO<sub>2</sub>-emissions per energy consumed (avoided CO<sub>2</sub> equivalent emissions 2023: 5.1 tonnes of CO<sub>2</sub>).

<sup>11</sup>Average specific energy consumption of Green Collaterals weighted by loan balances

<sup>12</sup>Benchmark is average specific energy consumption of residential buildings in Finland, 199 kWh/m<sup>2</sup>







## 6 External Review and Verification

PricewaterhouseCoopers Oy was engaged to issue an independent limited assurance on OPMB's Green Covered Bond Report. The scope of this limited assurance was the use of proceeds of the Green Covered Bond. Please see the end of the report for the limited assurance report.

## 7 Second Party Opinion Annual Review

OP Mortgage Bank engaged Sustainalytics to issue an Annual Review following its Second Party Opinion initially published in 2020, which includes assessment of OPMB's Green Covered Bond Report, including impact reporting. The Second Party Opinion issued by Sustainalytics is available on OP's Debt Investor Relations website<sup>13</sup>.

<sup>13</sup>[OPMB Green Covered Bonds](#)

## Contacts



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## Independent practitioner's limited assurance report

To the Management of OP Mortgage Bank

We have been engaged by the Management of OP Mortgage Bank (hereinafter also the "Company" or "OP Mortgage Bank") to perform a limited assurance engagement on selected information described below for the reporting period ended 31 December 2024, disclosed in OP Mortgage Bank Green Covered Bond Report March 2025 (hereinafter the Selected information).

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### Selected information

The selected information within the scope of assurance covers:

The scope of our work was limited to assurance over the information presented in the OP Mortgage Bank Green Covered Bond Report March 2025 on the disclosures on the allocations of the green bond proceeds for the reporting period ended 31 December 2024 disclosed under the section "4. Use of proceeds" in the table columns Total nominal loan balance and Allocated amount in accordance with the OP Mortgage Bank Green Covered Bond Framework November 2020.

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### Management's responsibility

The Management of the Company is responsible for preparing the Selected information in accordance with the Reporting criteria as set out in the OP Mortgage Bank Green Covered Bond Framework November 2020.

The Management of the Company is also responsible for such internal control as the management determines is necessary to enable the preparation of the Selected information that is free from material misstatement, whether due to fraud or error.

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### Practitioner's independence and quality management

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





PricewaterhouseCoopers Oy applies International Standard on Quality Management (ISQM) 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

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### Practitioner's responsibility

Our responsibility is to express a limited assurance conclusion on the Selected information based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (revised) "*Assurance Engagements Other than Audits or Reviews of Historical Financial Information*". The Standard requires that we plan and perform the engagement to obtain limited assurance about whether the Selected information is free from material misstatement.

In a limited assurance engagement, the evidence-gathering procedures are more limited than for a reasonable assurance engagement, and therefore less assurance is obtained than in a reasonable assurance engagement. An assurance engagement involves performing procedures to obtain evidence about the amounts and other information in the Selected information. The procedures selected depend on the practitioner's judgment, including an assessment of the risks of material misstatement of the Selected information.

Our work consisted of, amongst others, the following procedures:

- Interviewing of employees of the Company with regards to whether the reporting has been prepared in accordance with the OP Mortgage Bank Green Covered Bond Framework November 2020.
- Evaluating the design of the process and internal controls for managing, recording, and reporting the Selected Information.
- Inspecting minutes of the Green Bond Committee to confirm that the allocation of proceeds to eligible green projects has been considered and approved according to the process described in the OP Mortgage Bank Green Covered Bond Framework November 2020.
- Performing substantive testing to verify existence and accurate allocation of green bond proceeds per eligible green projects in accordance with the OP Mortgage Bank Green Covered Bond Framework November 2020 as presented under the section "4. Use of proceeds" in the table columns Total nominal loan balance and Allocated amount in the OP Mortgage Bank Green Covered Bond Report March 2025.
- Considering the disclosure and presentation of the Selected information.

This report, including our conclusions, has been prepared solely for the Management of OP Mortgage Bank and the green bond investors in accordance with the agreement between OP Mortgage Banks and us, to assist the Management of the OP Mortgage Bank in reporting on disclosures on the allocations of the green bond proceeds. We permit this report to be disclosed in the OP Mortgage Bank Green Covered Bond Report March 2025 in respect of the 2024 reporting year, to assist OP Mortgage Bank in responding to their governance responsibilities by obtaining an independent assurance report in connection with the Selected Information.





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### Limited assurance conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that OP Mortgage Bank's Selected information for the reporting period ended 31 December 2024 are not properly prepared, in all material respects, in accordance with the criteria set out in the OP Mortgage Bank Green Covered Bond Framework November 2020.

When reading our limited assurance report, the inherent limitations to the accuracy and completeness of Selected information should be taken into consideration.

Our assurance report has been prepared in accordance with the terms of our engagement. We do not accept, or assume responsibility to anyone else, except to OP Mortgage Bank for our work, for this report, or for the conclusions that we have reached.

Helsinki 20 March 2025

**PricewaterhouseCoopers Oy**

Tiina Puukkoniemi  
Partner, Authorised Public Accountant (KHT)  
Sustainability Reporting & Assurance