



Green Bond Impact Report 2021

de volksbank



Introduction

De Volksbank aims to meet the specific financial needs of its customers in a people-oriented, efficient and sustainable manner. Our mission is 'banking with a human touch'. We achieve it by creating value for all our stakeholders: our customers, society, our employees and our shareholder. We aim for optimum

Our long-standing commitment to sustainability is recognized by independent sustainability rating agencies that assess our sustainability performance annually.

shared value rather than maximisation of a single value. Together with our brands we strive for a strong customer relationship and increasing our social impact.

With our core activities mortgages, savings and payments, we can have a considerable positive impact on sustainability in our chain and our customers' financial resilience. At the end of 2021, we were 55% climate neutral. A significant improvement compared with 45% year-end 2020 based on the Partnership for Carbon Accounting Financials (PCAF) methodology. We are therefore on course to achieve our target of at least 75% climate-neutral by 2025 and 100% climate neutral by 2030. Our long-standing commitment to sustainability is recognized by independent sustainability rating

agencies that assess our sustainability performance annually. According to several sustainability rating agencies, de Volksbank has a leading position in environmental, social and governance themes.

Since the publication of the Green Bond Framework in April 2019, there were some relevant publications at EU level which are likely to impact the green bond market – such as the final TEG report on the EU Taxonomy (March 2020), the EU Green Bond Standard (June 2019) and the final Delegated Act (April 2021). Therefore, de Volksbank has updated the Green Bond Framework April 2019 to reflect alignment with the EU Taxonomy (Delegated Act on the EU Taxonomy). This

In September 2019, de Volksbank issued its first 'green senior preferred bond' in the amount of €500 million.

Green Bond Impact Report 2021 reflects the environmental impact reporting requirements as stated in the Green Bond Framework February 2021. We have had our Green Bond Framework 2021 externally assessed by ISS ESG. In the Second Party Opinion (SPO), alignment with the Green Bond Principles (GBP) has been confirmed and also the alignment of the Green Bond asset pool with the EU Taxonomy. De Volksbank is also a member of the Green Bond Principles. In September 2019, de Volksbank issued its first 'Green Senior Preferred Bond' in the amount of €500 million. This issuance was rewarded with the Green Bond Award of the Year by Environmental Finance.

In this Green Bond Impact Report 2021, de Volksbank N.V. reports on the non-financial impact during the financial year 2021, in respect of:

- The EUR 500,000,000 Notes due September 2024 (Green Bond) that de Volksbank N.V. issued in September 2019 (ISIN XS2052503872);
- The EUR 500,000,000 Notes due October 2030 (Green Bond) that de Volksbank N.V. issued in July 2020 (ISIN XS2202902636);
- The EUR 300,000,000 Notes due October 2022 (Green Bond) that de Volksbank issued in October 2020 (ISIN XS2242176258);
- The EUR 200,000,000 Notes due June 2022 (Green Bond) that de Volksbank issued in December 2020 (ISIN XS2271346152);
- The EUR 500,000,000 Notes due March 2028 (Green Bond) that de Volksbank N.V. issued in March 2021 (ISIN XS2308298962);
- And the EUR 500,000,000 Notes due June 2026 (Green Bond) that de Volksbank N.V. issued in June 2021 (ISIN XS2356091269).

This Impact Report compares the CO₂-emission of the Eligible Green Loan Portfolio to that of a comparable group of real estate with an average energy-efficiency. The objective of the Impact Report is to demonstrate that the selected buildings belonged to the top most sustainable buildings in the Netherlands and that it meets the requirements of the Green Bond Principles. Apart from this Impact Report, EY performed a limited assurance engagement on the Green Bond Allocation Report over the year 2021 which contains allocation reporting on a portfolio level.



Impact Report

De Volksbank commits to provide an annual non-financial impact report on climate impact associated to major categories of Eligible Green Loans, i.e.:

- **For Green Buildings Eligible Loans:**
 - Estimated ex-ante annual energy consumption and energy saving in kWh/m²
 - Estimated annual financed emissions and avoided or reduced emissions in tons of CO₂ equivalents
- **The contribution to de Volksbank's goal towards a climate neutral balance sheet:**
 - Estimated annual financed emissions and avoided emissions in tons of CO₂ equivalent
 - Contribution to the total annual financed emissions and avoided or reduced emissions in percentages

This Green Bond Impact Report, as well as the Green Bond Allocation report, is available on our [website](#).

Impact Eligible Green Loan Portfolio

As indicated in the 2021 Green Bond Framework, de Volksbank commits to an annual non-financial impact report. Below an overview of the impact can be found. Calculations are made by CFP Green Buildings, an external consultant who issued the Impact Assessment Eligible Green Loan Portfolio de Volksbank, detailing the environmental impact and methodology of the Eligible Green Loan Portfolio as per December 31st 2021. The full report can be found on page 8. The entire Eligible Green Loan Portfolio is situated in the Netherlands.

PORTFOLIO DATE: 31 DECEMBER 2021					
Eligible Project Category	Number of buildings	Signed Amount (EUR)	Share of Total Portfolio Financing	Eligibility for Green Bonds	Less GHG Emissions in tCO ₂ e
Green Buildings	19,984	4,739,872,795	100%	100%	27,685
Total	19,984	4,739,872,795	100%	100%	27,685

Table 1: Portfolio-based Green Bond Report according to the Harmonized Framework for Impact Reporting

- Total emissions of the Eligible Green Loan Portfolio per €mn is **14.5 ton CO₂ e**
- Less emissions, compared to baseline, per invested €mn is **5.8 ton CO₂ e**

Less emissions in CO₂ equivalents per invested million

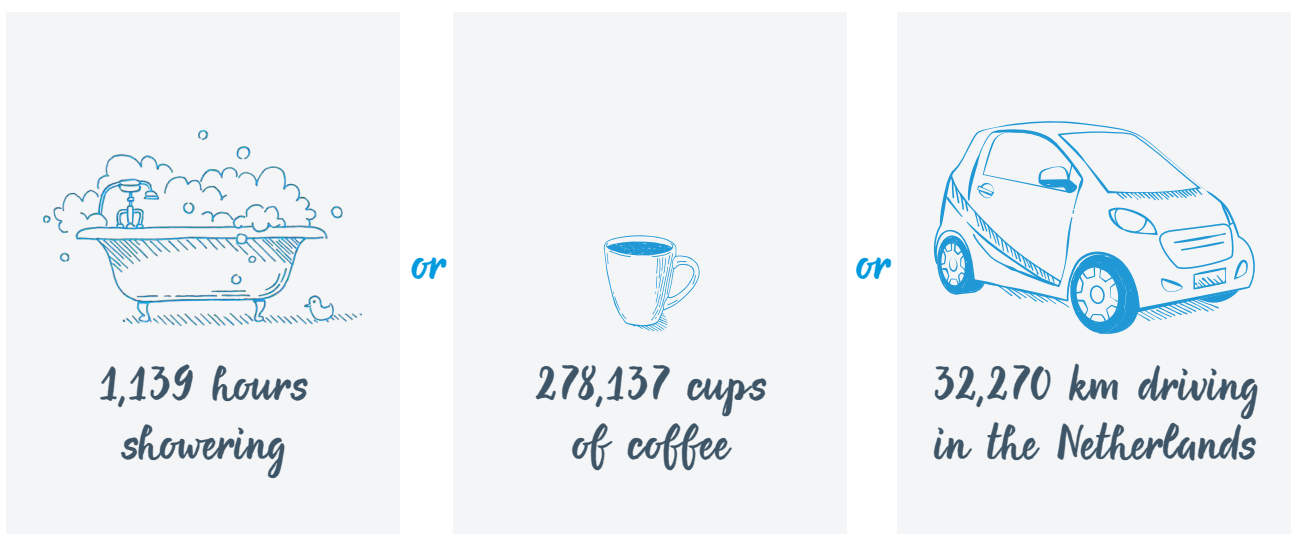


Figure 1: Less emissions in CO₂ equivalents, per invested million euros

An external consultant report detailing the environmental impact of the Eligible Green Loan Portfolio as per December 31st 2021, is presented from page 8 onwards.

From this study the following conclusions are drawn:

- Based on the calculated energy consumption, the buildings in the Eligible Green Loan Portfolio are estimated to emit 27,685 tons of CO₂ per year less than the Reference Group, which is a difference of 29%.
- Total average estimated energy consumption is calculated at 104 kWh/m²/per year.

- Based on the Impact Assessment and Green Residential Buildings Methodology Assessment Document, buildings in the Eligible Green Loan Portfolio belong to the top 15% low-carbon residential buildings in the Netherlands.

A climate-neutral balance sheet by 2030

Back in 2015, we had set ourselves the goal of having a climate-neutral bank balance sheet by 2030 at the latest, with an interim target of at least 75% climate neutrality by 2025. We have been measuring and reporting on the steps we take towards a climate-neutral balance

sheet since 2015. Our balance sheet is climate neutral when all our loans and investments cause as much CO₂e as we avoid, or even take out of the air. In this context, we also speak of financed emissions and avoided emissions.

In addition to a strict sustainability policy, we increase the climate-neutrality of our balance sheet through green bonds, funding of renewable energy projects and making our residential portfolio more sustainable.

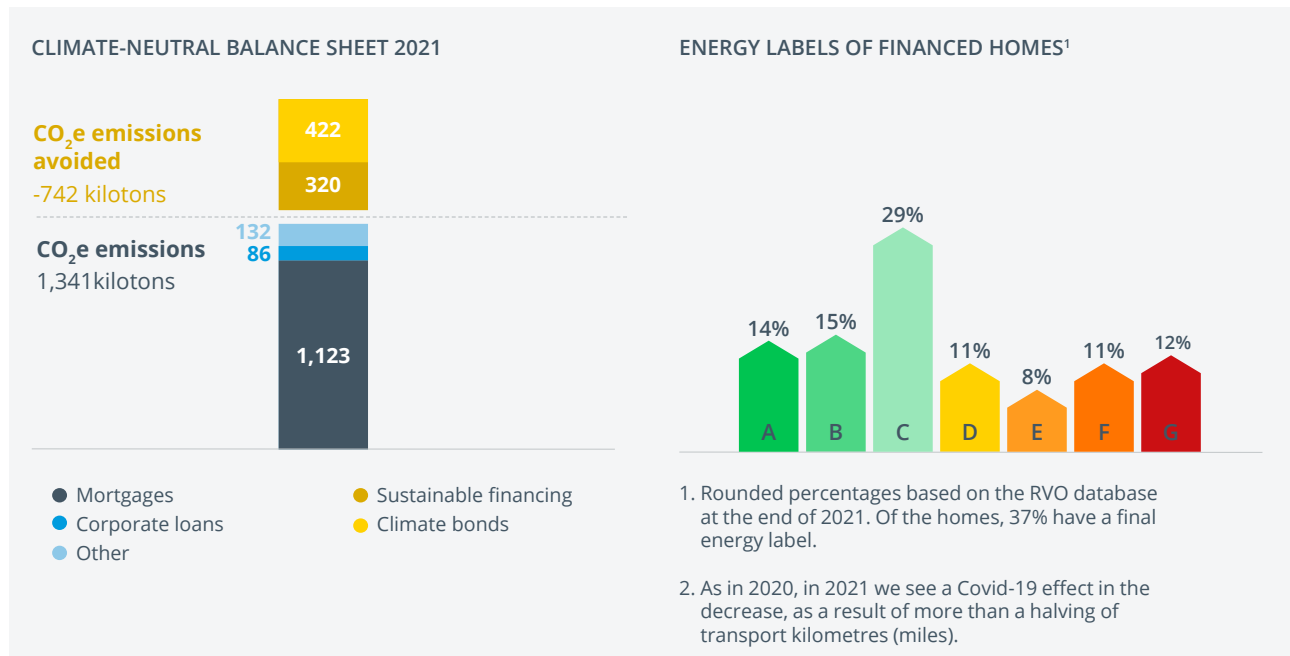


Figure 2: Climate-Neutral Balance Sheet 2021

At the end of 2021, we were 55% climate-neutral. A significant improvement compared with 45% year-end 2020 based on the Partnership for Carbon Accounting Financials (PCAF) methodology. We are therefore on course to achieve our target of at least 75% climate-neutral by 2025 and 100% climate-neutral by 2030. The improvement is driven by additional project financing and purchase of green bonds. The emissions of our bank balance sheet mainly ensue from the high number of mortgages we finance. Our mortgage portfolio accounts for 1,123 kilotons of CO₂e emissions (2020: 1,170 kilotons), or 84% of the total.

The contribution of the 2021 Eligible Green Loan Portfolio to the total annual

financed emissions of de Volksbank mortgage portfolio: 68.67 kiloton CO₂ / 1,123 kiloton CO₂ = 6.1%. The 2021 Eligible Green Loan Portfolio does not result in avoided emissions, but less emissions compared to the reference group.

The average energy label of our mortgage portfolio remained unchanged at D. This average energy label is based on the available final energy labels of the financed homes in the mortgage portfolio. A higher grade energy label does not mean that the energy consumption, and thus CO₂e emissions, is automatically reduced. Last year, thanks to the cooperation with three grid operators, we received anonymised energy consumption data of the customers in our residential mortgage portfolio:

89% of the gas consumption data and 93% of the electricity consumption data. This allowed us to make a much more accurate estimation of the CO₂e emissions of our portfolio. Compared with the calculation based on energy labels, we now attribute an additional 94 kilotons CO₂e emissions to this portfolio.

Since 2021, we report the results of the climate-neutral balance sheet according to the PCAF methodology. Our climate-neutrality dropped, due to the use of actual energy consumption data, the application of other emission factors in the calculation of the CO₂e emissions and avoided CO₂e emissions, and because of data-quality improvements. For example, the new emission factors allow us to attribute less avoided CO₂e emissions to project financing.

Recalculated using the PCAF methodology, our climate neutrality at the end of 2020

was 45%, which is significantly lower than the 59% reported for 2020. This percentage was calculated based on our old methodology, the carbon profit and loss methodology. This reduction is still within our expectation of a 15 percentage points reduction in climate neutrality by switching to the PCAF methodology.

To make our current climate target even more concrete, in 2021 de Volksbank calculated an emission reduction target in line with the Paris Agreement and we shared our target with the Science-based Targets Initiative for approval. The science-based targets indicate the extent and speed at which we need to reduce our emissions and funded emissions to help limit the global temperature increase to 1.5 °C. The target was still under review by the Science-Based Targets initiative at the time of publishing this report.

Progress Climate Neutrality

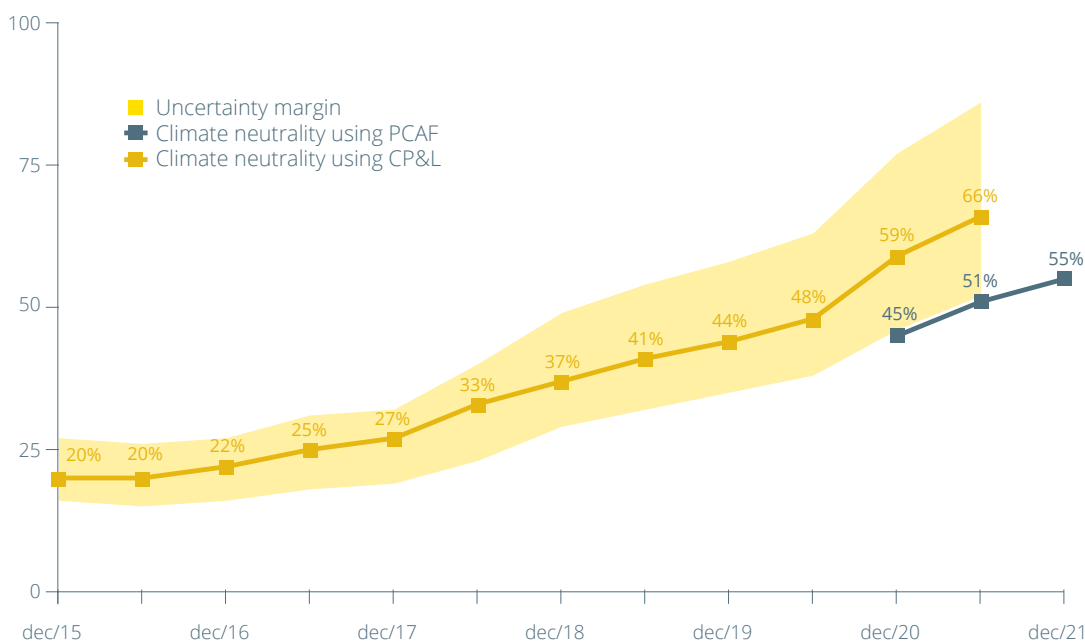


Figure 3: Progress on climate neutrality of de Volksbank ('15 –'21). PCAF: *Partnership for Carbon Accounting Financials – Global GHG Accounting and Reporting Standard for the Financial Industry*. CP&L: *Carbon Profit & Loss Methodology*.

Impact Assessment Eligible Green Loan Portfolio de Volksbank

Project: 2021 Green Bond impact report de Volksbank

Subject: CO₂ emission reduction calculation

Date: 31-10-2022

Status: Final

CFP Green Buildings has been asked to compare the greenhouse gas emissions¹ of a specific, energy-efficient group of residential real estate (in this document indicated as Eligible Green Loan Portfolio^{2,3}) to that of a comparable group of residential real estate with an average energy efficiency (indicated as “Reference” or “Reference Group”). The objective of this analysis is to demonstrate that the selected buildings belong to the topmost sustainable buildings in the Netherlands. In this document, the results of this analysis are shown. The Eligible Green Loan Portfolio of de Volksbank complies with the criteria of the EU Taxonomy Delegated Regulation from June 2021. This document outlines the results of this analysis.

Building year and energy label comparison

Assets in the Eligible Green Loan Portfolio should have an (provisional or registered) energy label A and belong to the top 15% of the national or regional building stock expressed as operational Primary Energy

Demand, as required by the 2021 Green Bond Framework of de Volksbank.

The building year is used as a criterion to determine the top 15% building stock. Over time, the Dutch Building Regulations require higher energy efficiency and improved sustainability for new buildings. Therefore, the year of construction is used as a criterion to define the Eligible Green Loan Portfolio of de Volksbank. Since 13% of the total Dutch housing stock is built since 2006 the selected year of construction (2006) can be used to determine the top 15% building stock in terms of PED.⁴ This way, the buildings in de Volksbank Eligible Green Loan Portfolio belong to the top 15% of most energy-efficient buildings of the Dutch real estate market.

As per the end of 2021, there are 1,409,239 registered energy labels with an A rating in the Netherlands.⁵

Methodology

The GHG emissions associated with the 20,011 eligible objects have been determined based on estimates of the annual energy consumption (natural gas and electricity) multiplied with GHG emission factor indicating the average emissions per unit of energy consumption.

The energy usage is based on algorithms and benchmarks from the expert system of CFP Green Buildings. CFP's Expert system is a database containing over 21 million square

¹ Greenhouse gas emissions are calculated in CO₂-equivalent, which will be referred to as CO₂ throughout this document.

² When referring to the Eligible Green Loan Portfolio in this document, we refer to Dutch Residential Green Buildings only.

³ The Eligible Green Loan Portfolio consists of 20,011 objects.

⁴ The methodology to define the top 15% is described in more detail in “de Volksbank Green Residential Buildings Methodology Assessment Document CFP”.

⁵ Source: EP-Online for EPC labels <http://www.ep-online.nl/>

meters of actual energy data of buildings. A section of this anonymised data provides live energy data derived from CFP's Energy Monitoring projects. Moreover, public big data, for example yearly updated average energy usage of homes in the Netherlands provided by Statistics Netherlands (CBS), is used to improve and check the benchmarking model. In this study, the calculated energy consumption of the Reference Group was determined based on data from Centraal Bureau Statistiek⁶ (CBS) and CFP. The Reference Group is a group of residential buildings with comparable floor area to de Volksbank portfolio and with an average energy efficiency.

The total energy consumption can be converted to GHG emissions by using GHG conversion / emission factors. We have applied GHG emissions factors indicating the average emissions per unit of energy consumption for all energy consumed on the Dutch energy grid. This is in accordance with the generally accepted PCAF⁷ methodology. The used emission factors originate from www.co2emissiefactoren.nl. This is a collaboration of multiple parties, including the Ministry for Economic Affairs and Climate policy, that regularly publishes updated GHG emission factors which have been reviewed by experts. Which has become a widely trusted source for valid and reliable GHG emission factors for the Dutch context. Because of continuous changes in Dutch electricity mix, the factor for electricity is updated. The applied methodology is in line with the location-based approach as specified in the GHG-protocol. This leads to the following emission factors:

Applied GHG emission factors⁸

Natural gas	1.788	kg CO ₂ e /m ³
Electricity	0.369	kg CO ₂ e /kWh

Table 1: Dutch GHG-emission factors

As described in the methodology report, buildings constructed in and between 2006 and 2020 belong to the top 15% of the national building stock, expressed as operational Primary Energy Demand. All objects in the portfolio are constructed in and between 2006 and 2020. 12,535 Objects in the Eligible Green Loan Portfolio have a registered energy label A. The other 7,476 objects do not have a registered energy label. By combining these numbers, the total amount of assets in the Eligible Green Loan Portfolio is 20,011.

⁶ Source: the Dutch national statistical office: <https://www.cbs.nl/en-gb>
⁷ Partnership for Carbon Accounting Financials (PCAF) is a global partnership of financial institutions that work together to develop and implement a harmonized approach

to assess and disclose the greenhouse gas (GHG) emissions associated with their loans and investments.
⁸ Source: <https://www.co2emissiefactoren.nl> using TTW emissions.

Energy consumption

Table 2 shows the calculated energy consumption per year of the Eligible Green Loan Portfolio. The calculated annual energy consumption is 71.2 million kWh of electricity and 23.7 million m³ of natural gas. To calculate the total energy consumption in kWh, the natural gas consumption in m³ needs to be converted to kWh⁹, giving a consumption of 79.6 kWh per m². The total calculated energy consumption is 104 kWh per m².

Estimated positive impact

Table 3 shows the estimated carbon footprint of the Eligible Green Loan Portfolio and the Reference Group. The total estimated annual GHG emissions associated with the Eligible Green Loan Portfolio are 68,670 tonnes CO₂e per year, compared to 96,355 tonnes CO₂e per year for the Reference Group. Resulting in less GHG emissions of 27,685 tonnes of CO₂e for 2021.

	Electricity consumption		Natural gas consumption		
	(x1000 kWh)	(kWh/m ²)	(x1000 m ³)	(m ³ /m ²)	(kWh/m ²)
<i>Buildings built since 2006 (top 15% in terms of PED)</i>	71,206	24.5	23,711	8.2	79.6

Table 2: Calculated energy consumption Eligible Green Loan Portfolio

	GHG emission		
	Eligible Green Loan Portfolio (tonnes CO ₂ e)	GHG emission Reference (tonnes CO ₂ e)	GHG emissions Reduction (tonnes CO ₂ e)
<i>Buildings built since 2006 (top 15%)</i>	68,670	96,355	27,685

Table 3: CO₂-emission Eligible Green Loan Portfolio compared to the Reference Group

⁹ Conversion factor for natural gas: 1 m³ = 9.769 kWh

Conclusion

The following conclusions are drawn from this study:

- The buildings in the Eligible Green Loan Portfolio are estimated to emit 27,685 tonnes of CO₂ per year less than the Reference Group, which is a difference of 29%.
- The total average estimated energy consumption is calculated at 104 kWh /m²/per year¹⁰.
- All buildings in the Eligible Green Loan Portfolio deliver a substantial contribution to climate change mitigation following the EU Taxonomy definition, either by having an EPC class A rating or belonging to the top 15% of the national building stock expressed as operational PED.

¹⁰ The total average estimated energy consumption is not only based on the fossil energy consumption of the building (PED), but also on other sources. The Primary Energy Demand only refers to the fossil energy demand.

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