

bunq's Investments and the Climate

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Introduction

Climate change is one of today's biggest challenges. To truly build a sustainable future, greater emission reduction efforts by financial institutions are a must. At bunq, we care about the planet and we fight for a greener world. We want to set an example in the climate change revolution, for both our users as well as our peers in the financial sector.

This document shows how we are committing to the good, green fight. Below you can find the risks and opportunities of our current position in regard to the climate, as well as targets and future commitments.

Our climate target

The targets you'll find below are in line with the Paris Agreement to fight climate change and enable the energy transition.

To decarbonize the global economy in alignment with the goals established by the Paris Agreement, everyone must take action. This means ensuring that the global average temperature remains well-below 2°C above pre-industrial levels, and limiting the temperature increase to 1.5 °C. For us, this means "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development". For banks who invest in residential mortgages, which we do, it requires reducing GHG (greenhouse gas) emissions by half by 2030. This is in line with Paris Agreement's Article 2.1(c).

To maximize our impact and align our measurable objectives with the maximum global temperature increase of 1.5° C, our commitments are the following:

1. bunq is committed to offering its users a climate neutral service, and hence be a truly climate neutral bank.
2. bunq is committed to finance projects that have a direct positive impact on the reduction of CO₂. bunq will continue to optimize its investment portfolio by excluding projects that play a detrimental role in climate change mitigation.
3. bunq is committed to measuring and publishing its climate footprint. To further intensify the positive effect of such on the financial sector, bunq will actively attend and provide input to PCAF project groups.

At the moment, work is needed to estimate the expected future CO₂ reductions for residential mortgages, so that we can commit to a quantitative CO₂ impact per million euro invested target. Because our CO₂ impact per invested million euros is already very low - much lower than most banks - reducing the CO₂ impact per million euro invested by half is much harder for us. Ideally, we would formulate an ambitious absolute CO₂ impact per million euro invested as a target, but it is currently not known what absolute level is consistent with the Paris Agreement goals.

Action plan

We plan to achieve our commitments above through a combination of actions:

First, we need to minimize the CO₂ impact of our own investments. The impact through investments has three levels:

- i. Finance projects or activities that have a direct positive impact on reduction of CO₂. For example, through green bonds and through financing house improvements that save energy. We are currently doing this for our a.s.r. portfolio of mortgages.
- ii. Mix of investment portfolio. We have an investment policy that excludes a number of industries with a high CO₂ impact. By excluding or shifting away from investments in companies with a high CO₂ impact, the overall CO₂ impact of the portfolio reduces. For example, we've sold most of our corporate bond portfolio in 2020 to replace them with residential mortgages, which have on average a much lower CO₂ impact.
- iii. Supporting climate-friendly changes in society that positively affect the CO₂ impact of our investments. For example, using cleaner sources of energy in houses reduces the CO₂, and thus reduces the CO₂ impact of residential mortgages.

Second, bunq enables its users to become CO₂-neutral. bunq is offering a variety of products to make carbon offset more accessible on the consumer level, amongst which the planting of trees for every 100 euros spent, empowering users to effortlessly make the world a greener place.

Furthermore, some of the tools in bunq's app, such as the budgeting tool, may assist users to direct their spending in a climate friendly way.

Third, bunq measures, and will continue to measure, the CO₂ footprint of its activities and investments. By identifying current and future reduction opportunities bunq can remain best in class.

Our investment policy

We take pride in offering the best banking experience by building features that our users actually want and need. Many of our users indicated that we should invest responsibly and safely, so Freedom of Choice was introduced in 2019. Freedom of Choice lets them decide where their money is invested. Since then, we have continued to align our investment portfolio with the desires of the bunq community. To help achieve this, all investments are assessed against strict socially responsible investing criteria.

Socially Responsible Investing Criteria

bunq does not finance, or invest in, companies active in areas that may be deemed not socially responsible. For climate-related risks bunq does not finance companies active in:

- Fossil fuel-fired power generation and/or extraction of oil and gas, including oil generated from tar sands for any part of their business activities
- Coal-fired power generation and/or coal mining for any part of their business activities
- Nuclear energy
- Mining activities

bunq holds several derivative contracts used for hedging interest rate risk. The management of these contracts, including posted collateral, are outsourced to Nationale Nederlanden Investment Partners. The counterparties are typically large banks and the collateral are typically claims on large financial institutions and corporations. These parties may be involved in financing one or more of the above activities. As bunq is obliged to manage its risks through derivatives, the scope of bunq's socially responsible investment practices excludes these contracts.

Our investments and the environmental impact

The majority of our users prefer investments to be safe and green. In addition, the Dutch Central Bank has a range of requirements that we must meet.

What does our investment portfolio look like?

Per 31 December 2020, our investment portfolio is made up of the following asset classes: cash, Dutch residential mortgages and green bonds. All these investments are safe and the estimated carbon footprint of our investment portfolio is low. Due to changes in the investment portfolio in 2020, the carbon footprint of our investments is estimated to have decreased from 113¹ tCO₂e² per invested million, to 19³ tCO₂e, making it significantly greener! This was an important motivation for selling our old bond portfolio to buy Dutch mortgages.

Currently bunq has no equity investments. However, if this changes in the future, we will engage, propose and support climate-related shareholder resolutions.

¹ bunq reduced its fixed income portfolio by EUR149m in December 2020 to invest in residential mortgages. The GHG impact of this bond portfolio was calculated using an equivalent fixed income portfolio

² tCO₂e is ton of carbon dioxide equivalent

³ This excludes cash, which artificially lowers this number

Our impact

Our assets produced 7810⁴ tCO₂e in 2020. How does this compare to other investment portfolios?

Per the end of 2020 our portfolio has a tCO₂e per Invested million value of 9.11. This is very low also due to the still significant amounts placed on deposit with the ECB. If we would exclude these deposits then the average tCO₂e per Invested million value is 18.07. To compare, the average fixed income portfolio has a tCO₂e per Invested million value above 100.

Asset Class	Portfolio Size (m)	Scope 1 emissions (tonCO ₂)	Scope 2 emissions (tonCO ₂)	Total (tonCO ₂)	tonCO ₂ per Invested million
Venn Residential Mortgage Portfolio	93	886	465	1351	14.60
ASR Residential Mortgage Portfolio	309	3080	1625	4706	15.30
ECB cash	433	99	50	148	0.40
Investments in oil, gas and energy production	N/A				
Commercial Estate	N/A				
Agriculture	N/A				
Heavy Industry	N/A				
Coal mining	N/A				
Transport	N/A				
Fossil fuel trading	N/A				
Green Bonds	5.20				N/A
Swap Collateral	17	1372	229	1601	94.20
Total	857	5440	2370	7810	9.11

*The mortgage calculations comply with the PCAF (Partnership for Carbon Accounting Financials) global standard, an industry-led partnership to standardise carbon accounting for the financial sector. PCAF calculation methodologies have not yet been created for the other reported asset types, so we apply PCAF principals to approximate the footprint.

⁴ This is based on the investment portfolio as at 31 December 2021

Calculating the CO₂ impact and further detail on bunq's investments

Bond portfolio

Our bond portfolio is outsourced to a.s.r Asset Management. In addition to our own socially responsible investment criteria, this portfolio also has to meet a.s.r 's criteria. When investing in corporate and sovereign bonds, we only invest in:

- Bonds that are *green* rated, meaning they support specific climate related or environmental projects. By investing in this asset class, we're directly funding projects that help solve environmental challenges.
- Bonds with a good credit standing. All bond investments have been rated by external agencies. AAA is the very best credit rating, one step lower is AA, then A, followed by BBB. BBB is still considered to be of good credit worthiness ('investment grade'). We don't have investments in bonds with lower credit ratings.

Here's our current bond portfolio:

Issuer	Rating	% of Bond Portfolio	Projects Funded by bunq's Green Bond
ADIF ALTA VELOCIDAD	BBB	39%	To create new electric rail lines and extensions, plus investments related to maintenance, upgrades and energy efficiency improvements.
INSTITUT CREDITO OFICIAL	A-	6%	Projects contributing to the achievement of UN Sustainable Development Goals. One such loan has helped Spain develop solar and wind plants.
JAPAN FINANCE ORGANIZATION	A+	19%	Improving water management, specifically related to sewerage projects.
REPUBLIC OF POLAND	A-	28%	The Treasury of the Republic of Poland uses these funds to help transition to a low-emission economy, including both climate mitigation and adaptation.
REPUBLIC OF POLAND	A-	8%	

CO₂ calculation method for the bond portfolio:

PCAF has not yet developed methods for measuring the carbon impact of green bonds, so we currently don't have a reliable, standardised method to quantify the carbon footprint of these investments. However, by definition, they should have a small or beneficial CO₂ impact. We are committed to measuring the carbon impact of green bonds as soon as a PCAF methodology has been developed.

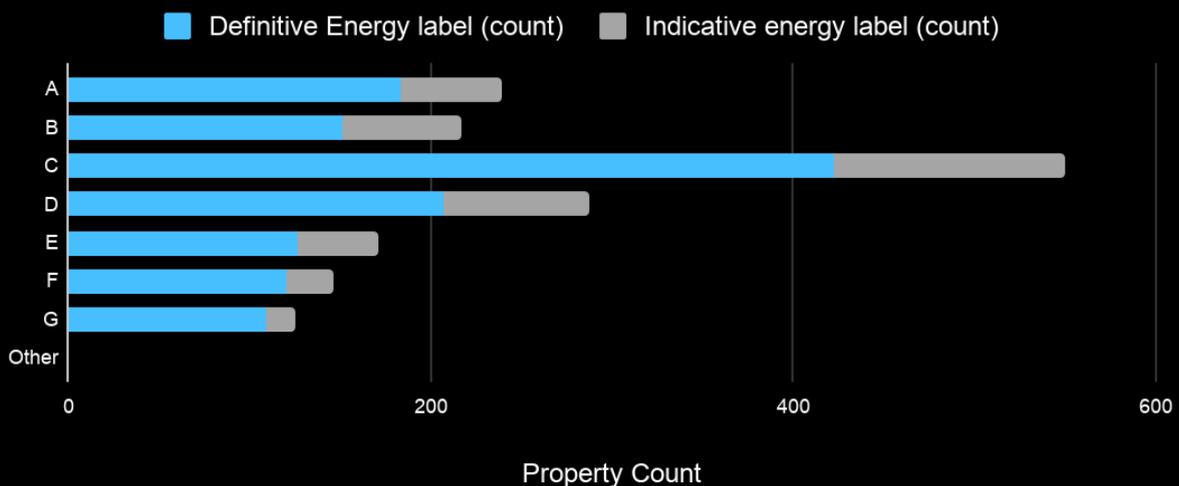
Dutch mortgage portfolio

Dutch mortgages make up just over 50% of our investment portfolio. These mortgages have been sourced from Venn Hypotheken and a.s.r Asset Management. Dutch mortgages are traditionally very safe investments. In recent years, credit losses have been <0.01%⁵.

CO₂ calculation method for the mortgage portfolio:

To measure and disclose the environmental impact of the mortgage portfolio we use methodologies introduced by PCAF. We use energy labels of homes (if the energy label isn't available, it's estimated using national averages) to calculate the average electricity and gas consumption of each property. The graph below shows the energy labels of homes we have funded.

Most properties have an energy rating of C or higher



The average electricity and gas consumption per energy label is converted into CO₂e emissions. This conversion is achieved with scope one and two emission factors⁶. The attribution to bunq is determined by the loan-to-value (LTV) ratio of the mortgage. In other words, if bunq funds half of a house, then we take responsibility for half the emissions of that household.

We use well-to-wheel (WTW) emission factors in our analysis. They account for GHG emitted during the supply chain of the energy. For example, oil needs to be drilled, transported, refined and then transported again. Each of these steps creates GHG's. WTW emission factors incorporate the GHG from each of these production steps. Other emission factors are less comprehensive, and cover only a part of the supply chain.

⁵ <https://www.asrvermogensbeheer.nl/beleggingsfondsen/fondsinformatie/mortgage-fund>

⁶ Found on www.CO2emissiefactoren.nl

Cash

Cash makes up slightly less than half of our investment portfolio. The majority of this cash is held with the European Central Bank (ECB), and can be viewed as risk-free.

CO₂ calculation method for the cash portfolio

ECB cash has a small impact on the environment. The PCAF standard does not provide guidance for this asset class, but we have made our calculation by applying PCAF principles. To calculate this impact we use PCAF emission factors to convert the cash into expected GHG emissions.

Our total environmental impact

To calculate our carbon footprint we apply all three scopes recommended by the Global GHG Accounting and Reporting Standards:

Scope 1: the direct use of fuel

Scope 2: the indirect use of fuel due to energy consumption (electricity)

Scope 3: our use of energy through suppliers, inputs, and investments

Being a financial institution, most of our carbon footprint is a result of our investments (which we summarised above). However, we want to improve our direct emissions as well, hence the need to calculate scope one and two emissions.

Scope three emissions also cover carbon emissions from suppliers and outsourcing partners. The breadth of this can be endless. We aim to publish a minimum of 95% of our scope three footprint, focusing on main suppliers like Amazon web services, NNIP and a.s.r.

Scope	GHG emissions sources	CO ₂ impact (tCO ₂ e a year)
One	Natural gas consumption	21
Two	Electricity consumption	41
	Staff Travel - bike	4
	Staff Travel - train	56
	Staff Travel - car	61
	Flights	22
	Paper	2
Three	Main Supplier's CO ₂ footprint	
	Datacenter (transIP)	4
	AWS	5
	Onfido	N/A ⁷
	NNIP	0 (carbon offsets used)
	a.s.r	0 (carbon offsets used)
Total		8100 tCO ₂ e
Scope 1 & 2 emissions per FTE		1.02 tCO ₂ e per FTE

At bunq we are committed to reducing the direct CO₂ impact of our offices and staff. We reached out to our landlord to request the use of renewable energy sources for both the Amsterdam and Sofia offices, and are working towards a solution. Paper use is minimal at 30pages per FTE per year, but our goal is to become a paperless office. Our staff are young and environmentally conscious with 35% commuting to work on bikes and 50% using public transport.

Carbon offset	Trees
Trees required to offset bunq's carbon footprint	658,500
Trees planted by bunq in 2020	2,089,301
tCO ₂ offset by planted trees in 2020	25600 ⁸ tCO ₂

As demonstrated in the table above, ~660k new trees are required to offset bunq's current annual carbon footprint of 8100 tCO₂e. As shown, the number of trees planted on behalf of our users is three times higher. This more than outweighs the CO₂ impact of activities and investments to service them. Each additional tree planted enables our users to become climate neutral. While the climate is best served if our users reduce the direct CO₂ impact of their activities, the more they use their bunq account, the closer they are to becoming climate neutral.

⁷ Onfido does not yet measure their CO₂ footprint

⁸ Eden Reforestation Projects estimates 12.3kg of CO₂ are removed on average per tree per year

Addendum

Complete Methodologies used to calculate GHG emissions

Scope 1

The direct use of fuel is limited to gas consumption across our offices (Sofia and Amsterdam), converted to tCO₂e using 1,884 kg CO₂/m³ for natural gas. These emission factors are sourced from CO₂ emissiefactoren.

Scope 2

The indirect use of fuel includes electricity usage in our offices and employees' commute to work.

To determine how employees commute to the office (train, bike or car), we completed an office survey. Kilometers traveled were based on HR data used to calculate commute costs to compensate employees. The number of employees coming into the office was based on a normal year. This overestimates bunq's carbon footprint in 2020 as Covid-19 restricted office access.

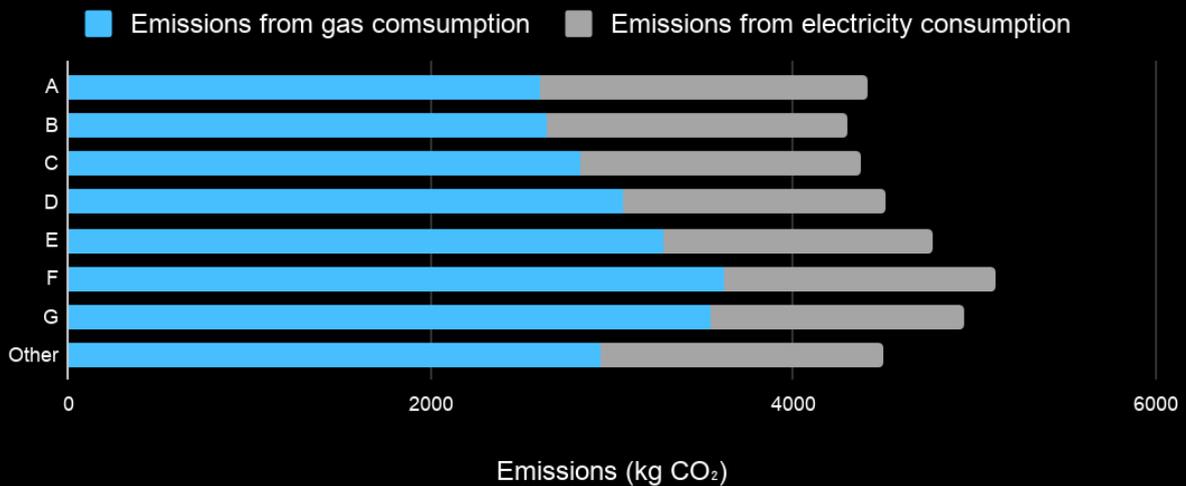
Scope 3

We use PCAF calculation methodologies when relevant or PCAF principals to calculate all our investment GHG emissions. The most comprehensive calculation was for the mortgage portfolio.

Mortgages

The average gas and electricity consumption per energy label were published in Cijfers over wonen en bouwen 2013. This report by Rijksoverheid summarises the state of housing in the Netherlands. While this is an old report, it is the latest available. Given the average energy output of households have dropped over the last seven years, this leads to an overestimation. The average consumption per energy label can be converted to CO₂ emissions by multiplying with the Dutch energy market WTW emission factors, calculated by CO₂ emissiefactoren. As of January 2020, the factors are 1,884 kg CO₂/m³ for natural gas and 0,475 kg CO₂/kWh for electricity of unknown origin. The results of this calculation are shown in the following graph:

Emissions per household



Total portfolio emissions can be calculated by multiplying the number of houses per energy label with the average kg CO₂e output per energy label. For homes with no available energy label data, we apply the market average.

How much of these annual emissions are attributed to us? GHG accounting recommends that attribution is equal to the ratio of the outstanding loan to the initial property value when the loan was originally made. We fix the value of the property so that our carbon footprint does not change with movements in property prices. For the VENN portfolio we can do this calculation on a loan by loan basis. For the a.s.r. portfolio, we were only able to apply the weighted average portfolio LTV due to data limitations.

The mortgage CO₂ calculation for both portfolio's has a PCAF data quality score of 5⁹. For this to improve we need access to definite building emissions, instead of using building averages, or base calculations on the property floor area. We don't yet have access to this level of data.

Swap Collateral

As mentioned above, the management of swap collateral is outsourced to Nationale Nederlanden Investment Partners (NNIP). The PCAF Standard does not provide guidance for calculating CO₂ of this asset class, but we have made an approximation by applying PCAF principles. NNIP invests mainly in short-dated financial institution notes, which actively change. The most relevant emission factor is the PCAF diversified financials emission factor, therefore, we use this to estimate the CO₂ emissions.

⁹ (score 1 = highest data quality; score 5 = lowest data quality)