



Achmea B.V.

Green Bond Impact Report

30 june 2023

Achmea B.V. Green Bond Impact Reporting

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Metrics regarding projects' environmental impacts

Portfolio based green bond report in accordance with the Handbook - Harmonized Framework for Impact Reporting (June 2021)¹. Calculation of CO2-emissions are in line with the recommendations of the Partnership for Carbon Accounting Financials (PCAF).

Eligible Project Category	Number of units	Eligible portfolio (EURm)	Share of Total Financing	Eligibility for Green Bonds	Annual energy consumption (kWh/m2)	Annual reduced and/or avoided emissions of CO2 (tons)	Rentable area certified to an eligible green building standard (m2)
a/		b/	c/	d/	e/	e/	e/
Eligible Green Project Portfolio	5.904	1.428	100%	100%	34,2	6,636	n/a
Total		1.428	100%	100%	34,2	6,636	n/a

- a/** Eligible category
- b/** Signed/budgeted amount committed by the issuer for the portfolio or portfolio components eligible for Green Bond financing
- c/** This is the share of the total budget financing
- d/** This the share of the total portfolio costs that is Green Bond Eligible
- e/** Estimated ex-ante annual energy consumption in kWh/m2
- f/** Estimated annual reduced and/or avoided emissions in tons of CO2 equivalent
- g/** Rentable area (m2) of commercial real-estate certified to an eligible green building standard

EU Taxonomy Alignment summary

Summary of Eligible Green Loans selected	New and existing mortgages for energy efficient residential buildings in the Netherlands aligned with climate delegated act 7.7
Alignment with EU Taxonomy (Delegated Acts) Substantial Contribution Criteria of Green Loans selected	Green Loans selected 100% align with Substantial Contribution criteria in the climate delegated act 7.7
Alignment with EU Taxonomy (Delegated Acts) Do No Significant Harm and Minimum Social Safeguards criteria of Green Loans selected	Achmea is aware of the fact the EU Taxonomy and the EU Green Bond Standard (EU GBS) require additional criteria for EU Taxonomy alignment. However, at this time Achmea is not able to confirm, and there can be no assurance that the Green Loans selected meet the 'do no significant harm' and 'minimum safeguards' requirements of the EU Taxonomy climate delegated act. It is part of Achmea's transaction approval process to ensure that the Eligible Green Projects comply with Achmea's sustainability policy, including those financed with the proceeds of any Green Finance Instruments issued under this Framework.

¹ ICMA Handbook - Harmonized Framework for Impact Reporting (June 2021)



Impact Assessment Eligible Green Project Portfolio Achmea

Project: 2023 Green Bond impact report Achmea

Subject: CO₂ emission reduction calculation

Date: 16-11-2023

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 Project 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 top most sustainable buildings in the Netherlands. In this document, the results of this analysis are shown. The Eligible Green Project Portfolio of Achmea complies with the criteria of the EU Taxonomy Delegated Regulation from June 2021. This document outlines the results of this analysis.

Preface

Achmea, an insurer with a cooperative identity, is one of the largest insurance companies in the Netherlands, providing a wide scope of financial services and products. The organization serves around 10 million retail and business customers, both domestically and abroad. In the retail market, Achmea focuses

with Life and Non-life insurance products through various brands on basic insurance products at moderate premiums. The company provides corporate clients with financial propositions in the field of fiduciary and asset management services including real estate and mortgages via Achmea Investment Management, Achmea Mortgages and Achmea Real Estate

Achmea has established a Green Finance Framework under which Achmea can issue Green Finance Instruments to finance and/or refinance a portfolio of loans and/or investments relating to 1) new and existing energy efficient residential buildings in the Netherlands (Residential Real Estate) and 2) energy efficient commercial buildings in the Netherlands and internationally (Commercial Real Estate). This Green Finance Framework is based on the Green Bond Principles (ICMA, 2021) and the Green Loan Principles (LMA/APLMA, 2021).

The Eligible Green Project Portfolio

Assets in the Eligible Green Project Portfolio should have an energy label A and/or belong to the top 15% of the national or regional building stock expressed as operational Primary Energy Demand, as required by the 2022 Green Finance Framework of Achmea.

The building code of the building year is used as a criterion to determine the top 15% building stock as described in the Green Residential

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 Project Portfolio in this document, we refer to Dutch Residential Green Buildings only.

³ The Eligible Green Project Portfolio consists of 5904 objects.

Buildings Methodology Assessment Document of Achmea. 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 Project Portfolio of Achmea. Since around 13% of the total Dutch housing stock is built since 2005 the selected year of construction (2005) can be used to determine the top 15% building stock in terms of PED.⁴ This way, the buildings in Achmea Eligible Green Project Portfolio belong to the top 15% of most energy-efficient buildings of the Dutch real estate market.

Methodology

The GHG emissions associated with the 5,904⁵ 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 consisting 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 Centraal Bureau Statistiek (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 CBS. The Reference Group is a group

of residential buildings with comparable floor area to the Achmea portfolio and with an average energy efficiency (CBS).

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 PCAF⁶ 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 factors⁷

Natural gas	1.782	kg CO ₂ e /m ³
Electricity	0.29	kg CO ₂ e /kWh

Table 1: Dutch GHG-emission factors

As described in the Green Residential Buildings Methodology Assessment Document of Achmea, buildings constructed in and between 2005 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 2005 and 2020.

⁴ The methodology to define the top 15% is described in more detail in "Achmea Green Residential Buildings Methodology Assessment Document CFP".

⁵ Because of data privacy constraints, an eligibility check utilizing public databases was infeasible. Consequently, Achmea chose eligible assets to include in the Green Bond portfolio"

⁶ 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.

⁷ Source: <http://www.co2emissiefactoren.nl> using TTW emissions.

Energy consumption

Table 2 shows the calculated energy consumption per year of the Eligible Green Project Portfolio. The calculated annual energy consumption is 28.3 million kWh of electricity and approximately 5.1 million m³ of natural gas. To calculate the total energy consumption in kWh, the natural gas consumption in m³ needs to be converted to kWh⁸, giving a consumption of 49.5 million kWh. The total calculated energy consumption is 77.9 million kWh which translates to 94 kWh per m².

Estimated positive impact

Table 3 shows the estimated carbon footprint of the Eligible Green Project Portfolio and the Reference Group. The total estimated annual GHG emissions associated with the Eligible Green Project Portfolio are 18,751 tonnes CO₂e per year, compared to 25,387 tonnes CO₂e per year for the Reference Group. Resulting in less GHG emissions of 6,636 tonnes of CO₂e for 2023.

	Electricity consumption		Natural gas consumption		
	(x1,000 kWh)	(kWh/m ²)	(x1,000 m ³)	(m ³ /m ²)	(kWh/m ²)
<i>Eligible Green Project Portfolio</i>	28,324	34.2	5,074	6.13	59.89

Table 2: Calculated energy consumption Eligible Green Project Portfolio

	GHG emission		
	Eligible Green Project Portfolio (tonnes CO ₂ e)	GHG emission Reference (tonnes CO ₂ e)	GHG emissions Avoided (tonnes CO ₂ e)
<i>Eligible Green Project Portfolio</i>	18,751	25,387	6,636

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

Conclusion

The following conclusions are drawn from this study:

- The buildings in the Eligible Green Project Portfolio are estimated to emit 6,636 tonnes of CO₂ per year less than the Reference Group, which is a difference of 26.1%.
- The total average estimated energy consumption is calculated at 94 kWh /m²/per year⁹.
- All buildings in the Eligible Green Project 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.

⁸ Conversion factor for natural gas: 1 m³ = 9.769 kWh

⁹ 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.