Achmea B.V.

Green Bond Impact Report

31 December 2024

Introduction

Under the Achmea Green Finance Framework, Achmea Group may issue Green Bonds. Achmea B.V. believes that Green Bonds are an effective tool to fund assets that have demonstrated clear environmental or climate benefits and contribute to the achievement of the Sustainable Development Goals. By issuing Green Bonds, Achmea Group intends to align its funding strategy with its sustainability strategy and objectives.

Achmea Group reports annually on the positive impact associated with the Eligible Green Loan Portfolio. For the residential green buildings, we report:

- estimated annual energy consumption in KWh/m2
- estimated annual avoided/reduced emissions in tons of CO2 equivalent

Impact measurement for residential green buildings was performed by CFP, an external consultant. Further information about the methodology behind impact measurement on residential green buildings, along with the results, can be found in the last part of this impact report. The impact figures for residential green buildings refer to the financial year 2024.

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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 2023)[1]. Calculation of CO2-emissions are in line with the recommendations of the Partnership for Carbon Accounting Financials (PCAF).

Eligible project Category a/	Number of units	Eligible portfolio (EURm) b/	Share of Total Financing c/	Eligibility for Green Bonds d/	Annual energy consumption (KWh/m2) e/	Annual reduced and/or avoided emissions of CO2 (tons) f/	Rentable area certified to an eligible green building standard (m2) g/
Eligible Green Project Portfolio	12.187	2.913	100%	100%	28,3	13.773	n/a
Total			**100%**	**100%**			**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

[1] ICMA Handbook - Harmonized Framework for Impact Reporting (June 2023)

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Impact Assessment Eligible Green Project Portfolio Achmea

Project: 2025 Green Bond impact report Achmea

Subject: CO_2 emission reduction calculation

Date: 3-7-2025

Status: Final

CFP Green Buildings has been asked to compare the greenhouse gas emissions[1] 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"[4]) for the year 2024. 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 with 2022 Appendix I) and the Green Loan Principles (APLMA/LMA/LSTA, 2023).

The Eligible Green Project Portfolio

Assets in the Eligible Green Project Portfolio either have a registered energy label A or higher, belong to the top 15% of the national or regional building stock expressed as operational Primary Energy Demand, as required by the EU taxonomy, or meet the requirements for a PED lower than 10% threshold set for a Nearly Zero Energy Building (NZEB), as required by the 2024 Green Finance Framework of Achmea[5].

[1] Greenhouse gas emissions are calculated in CO_2-equivalent, which will be referred to as CO_2 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 12,187 objects.
[4] The Reference Group represents the average CO_2-emissions of residential buildings in the Netherlands, taking the floor area of the eligible assets into account.
[5] All assets in the Eligible Green Project Portfolio are selected by Achmea Real Estate.

The year in which a new building was introduced is used as a criterion to determine the top 15% building stock as described in the Green Residential 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 in which a building regulation is introduced is used as a criterion to define the Eligible Green Project Portfolio of Achmea. Since around 12% 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.[6] 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.

For buildings built after 31 December 2020 in the portfolio, they are 10% more energy efficient than the local Dutch NZEB requirements as they comply to the following values:

- Ground based houses (such as houses and (semi)-detached houses): Equal to or lower than 27 kWh/m^2/year.
- Non-ground based buildings (such as flats and apartments): Equal to or lower than 45 kWh/m^2/year.

Methodology

The GHG emissions associated with the 12,187[7] 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, RVO, Kadaster and CFP[8]. The Netherlands' average CO_2 emissions per square meter per building type are calculated based on these sources. These averages are regularly updated as the public sources are also updated regularly. The Reference Group is a group of residential buildings with comparable floor area to the Achmea portfolio. The numbers used for the calculations in this report are given in the table below[9].

CO_2 emissions of the Reference Group per m^2	
Residential	28.7 kg CO_2e per year per m^2

Table 1: Emission of the Reference Group

The Reference Group is a dynamic portfolio that is becoming more sustainable over time, as it represents the Dutch (residential) building stock, which is also becoming more sustainable.

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

[6] The methodology to define the top 15% is described in more detail in "Achmea Green Residential Buildings Methodology Assessment Document CFP".
[7] 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".

[8] The reference group has the same floor area as the eligible objects. The CO_2-emissions are calculated by CFP algorithms taking into account the energy usage of all residential buildings in the Netherlands.
[9] The emission factors of table 1 are used.

emissions per unit of energy consumption for all energy consumed on the Dutch energy grid. This is in accordance with the generally accepted PCAF[10] 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 factors[11]		
Natural gas	1.779	kg CO_2e /m^3
Electricity	0.270	kg CO_2e /kWh

Table 2: Dutch GHG-emission factors

Table 3 shows the distribution of the assets in the Eligible Green Project Portfolio among the three different criteria:

1. Buildings with an Energy Label A≥ (built before 2021).
2. The top 15% of the national or regional stock, expressed as primary energy demand[12].
3. Buildings built after 31 December 2020 that have a PED that is 10% lower than the NZEB requirements.

Criteria	Objects
Buildings registered A≥ labels built before 31st of December 2020	9,897
Building built between 2006-2020 (top 15%) without registered A label	2,024
Buildings built after 31 December 2020 with PED of NZEB -10%	266

Table 3: Assets in the Green Residential Buildings Portfolio

Energy consumption

Table 4 shows the calculated energy consumption per year of the Eligible Green Project Portfolio. The calculated annual energy consumption is 47.7 million kWh of electricity and approximately 12.2 million m^3 of natural gas. To calculate the total energy consumption in kWh, the natural gas consumption in m^3 needs to be converted to kWh[13], giving a consumption of 118.9 million kWh. The total calculated energy consumption is 166.6 million kWh which translates to 99 kWh per m^2.

[10] 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.
[11] Source: https://www.co2emissiefactoren.nl using TTW emissions for the year 2024, since the portfolio analysis is for 2024.
[12] As described in the Green Residential Buildings Methodology Assessment Document of Achmea, buildings constructed in and between 2006 and 2020 belong to the top 15% of the national building stock.
[13] Conversion factor for natural gas: 1 m^3 = 9.769 kWh.

	Electricity consumption		Natural gas consumption		
	(x1,000 kWh)	(kWh/m²)	(x1,000 m³)	(m³/m²)	(kWh/m²)
Buildings A label≥[14]	38,362	28.6	10,258	7.7	74.8
Buildings Top 15%[15]	8,113	26.0	1,912	6.1	59.8
NZEB - 10% ≥2021[16]	1,195	37.9	0	0	0
Eligible Green Project Portfolio	47,670	28.3	12,170	7.2	70.7

Table 4: Calculated energy consumption Eligible Green Project Portfolio

Estimated positive impact

Table 5 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 34,521 tonnes CO2e per year, compared to 48,294 tonnes CO^2 per year for the Reference Group. Resulting in less GHG emissions of 13,773 tonnes of CO_2 for 2024.

	GHG emission Eligible Green Project Portfolio (tonnes CO_2e)	GHG emission Reference (tonnes CO_2e)	GHG emissions Avoided (tonnes CO_2e)
Buildings A label≥[17]	28,606	38,432	9,826
Buildings Top 15%[18]	5,592	8,958	3,366
NZEB - 10% ≥2021[19]	323	904	581
Eligible Green Project Portfolio	34,521	48,294	13,773

Table 5: CO_2-emission Eligible Green Project Portfolio compared to the Reference Group

[14] Buildings registered A labels or higher built before 31st of December 2020.
[15] Buildings built between 2006-2020 (top 15%) without registered A label.
[16] Buildings built since 2021 with PED of NZEB -10%.
[17] Buildings registered A labels or higher built before 31st of December 2020.
[18] Buildings built between 2006-2020 (top 15%) without registered A label.
[19] Buildings built since 2021 with PED of NZEB -10%.

Conclusion

The following conclusions are drawn from this study:

- The buildings in the Eligible Green Project Portfolio are estimated to emit 13,773 tonnes of CO_2 per year less than the Reference Group, which is a difference of 28.5%.
- The total average estimated energy consumption is calculated at 99 kWh /m^2 /per year[20].
- The Reference Group reports CO_2 emissions of 28.7 kg CO_2e/m^2/year, whereas the Eligible Green Building Portfolio achieves lower emissions at 20.5 kg CO_2e/m^2/year.
- 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 or higher rating, belonging to the top 15% of the national building stock expressed as operational PED or by meeting the requirements for a PED lower than 10% threshold set for a Nearly Zero Energy Building (NZEB) for buildings built after 31 December 2020.

[20] 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.