

**DREES &
SOMMER**



BAWAG GROUP

SUSTAINABLE FINANCE

**IMPACT REPORTING – RESIDENTIAL
BUILDINGS**


SECOND INPUT – SUMMARY

18.04.2024

**TSCHÄTSCH | JELENCŠITS | KNOLL |
EISELE**

GREEN BOND IMPACT – BAWAG GROUP

Summary

	Low Carbon Buildings	Year of Issuance	Type	Signed Amount ^a	Annual final energy savings ^b	Annual CO2 emissions avoidance ^c
	<i>Unit</i>	<i>[yyyy]</i>	<i>[-]</i>	<i>[EUR]</i>	<i>[MWh/year]</i>	<i>[tCO2/year]</i>
EU Taxonomy - Construction and real estate activities - climate change mitigation	BAWAG Group - AT, DE, NL	2024	Low Carbon Building	3.404.762.457	541.362	71.844
	<i>Residential - Austria</i>	<i>2024</i>	<i>Low Carbon Building</i>	<i>2.580.975.914</i>	<i>431.896</i>	<i>45.659</i>
	Single family houses - AT	2024	Low Carbon Building	1.992.927.704	398.164	42.093
	Multy family houses - AT	2024	Low Carbon Building	588.048.210	33.732	3.566
	<i>Residential - Netherlands</i>	<i>2024</i>	<i>Low Carbon Building</i>	<i>518.426.050</i>	<i>8.656</i>	<i>1.991</i>
	Single family houses - NL	2024	Low Carbon Building	446.112.545	7.938	1.826
	Multy family houses - NL	2024	Low Carbon Building	72.313.505	717	165
	<i>Residential - Germany</i>	<i>2024</i>	<i>Low Carbon Building</i>	<i>305.360.493</i>	<i>100.810</i>	<i>24.194</i>
	Single family houses - DE	2024	Low Carbon Building	221.407.970	85.904	20.617
	Multy family houses - DE	2024	Low Carbon Building	83.952.523	14.906	3.577

a Legally committed signed amount by the issuer for the portfolio or portfolio components eligible for green bond financing.



b Final energy savings calculated using the difference between the top 15% and the national building stock benchmarks

c Greenhouse gas emissions avoidance determined by multiplying the final energy savings with the carbon emissions intensity

Drees & Sommer impact reporting based on the EU Taxonomy eligibility criteria for construction and real estate activities for the residential portfolio in Austria, Germany and The Netherlands. Status: April 2024

MANAGEMENT SUMMARY – SUSTAINABLE FINANCE

EU Taxonomy eligibility criteria for climate change mitigation – residential assets in Austria


<i>Economic activity</i>	<i>Screening criteria</i>	 Single-Family houses¹	 Multi-Family houses²
7.1 Construction of new buildings	Nearly Zero-Energy Building Primary energy demand ³ minus 10%	The primary energy demand is at least 10% lower than the “ Nearly Zero Energy Building ”-Standard (NZEB)’s threshold. Based on „Energy Performance of Buildings Directive (EPBD)“, the NZEB is set in “ OIB-RL6 “-“ Nationaler Plan ” (OIB-330.6-005/18). New Construction: NZEB-10%: Primary energy $PE_{H,n.ren.} \leq 36,9 \text{ kWh/m}^2_{GFA}$ Major Renovation: NZEB-10%: Primary energy $PE_{H,n.ren.} \leq 39,6 \text{ kWh/m}^2_{GFA}$	
7.2 Renovation of existing buildings	Major Renovation Cost optimal level ⁷	Major renovation meets cost-optimal minimum energy performance requirements in accordance with the Energy Performance of Buildings Directive (EPBD). Requirements for total energy efficiency as referenced in “ OIB-RL6:2015 ” (OIB-330.6-009/15) or newer.	
	Property Upgrade Relative improvement $\geq 30\%$ in primary energy demand	Relative improvement in non-renewable primary energy demand $\geq 30\%$ in comparison to the performance of the building before the renovation.	
7.7 Acquisition and ownership of buildings	Energy Performance Certificate EPC at least class A	Energy performance certificate with energy efficiency rating of A or better , complying with: - heating demand $HWB_{(Ref),SK} \leq 25 \text{ kWh/m}^2_{GFA}$, or - energy efficiency factor $f_{GEE,(SK)} \leq 0,85$ - primary energy demand PE_{SK} of 80 kWh/m²_{GFA} or less	
	top 15% of the national existing building stock ⁵	Salzburg: 2012 All other counties: 2010	Burgenland: 2017 Vorarlberg: 2013 Salzburg: 2012 All other counties: 2010
		<u>All counties:</u> OIB-R6-2007 (OIB-300.6-038/07) with stringency of 01.01.2010	<u>Burgenland:</u> OIB-R6-2015 <u>Vorarlberg:</u> OIB-R6-2011 <u>All other counties:</u> OIB-R6-2007 with string. 01.01.2010

Drees & Sommer low carbon building criteria are based on EU Taxonomy (Delegated Act – June 2021 – technical criteria for climate change mitigation). Criteria are valid for assets located in Austria. Status: March 2024. Assets do need to comply only with one of the criteria 1) – 4) to proof eligibility, according to the corresponding asset category and usage.

Source: Drees & Sommer low carbon building criteria are based on EU Taxonomy (Delegated Act – July 2021). Criteria are valid for assets located in Austria. Status: March 2024.

MANAGEMENT SUMMARY – SUSTAINABLE FINANCE

Energy & CO₂-Benchmarks – residential buildings in Austria

	Ø-Reference values: Energy		Ø-Reference values: CO ₂	
Single family houses	Primary energy factor mean residential (heating, hot water): 1,277	Building-weighted reference benchmark: FED_H = 299,4 kWh/m²_{GFA}a PED_H = 382,3 kWh/m²_{GFA}a	CO ₂ emission intensity mean residential (heating, hot water): 0,135 kgCO₂/kWh	Building-weighted reference benchmark (heating, hot water): 40,5 kgCO₂/m²_{GFA}a
Multi family houses		Building-weighted reference benchmark: FED_H = 189,6 kWh/m²_{GFA}a PED_H = 242,0 kWh/m²_{GFA}a		Building-weighted reference benchmark (heating, hot water): 25,6 kgCO₂/m²_{GFA}a

Source: Drees & Sommer low carbon building benchmarks. Benchmarks are valid for assets located in Austria. Status: March 2024

FED_H = final energy demand for heating and hot water

FED_H = final energy demand for heating and cooling

GFA = heated gross floor area

GREEN BOND IMPACT REPORT BAWAG GROUP

Austrian residential real estate portfolio – Impact Reporting

Low Carbon Buildings	Year of Issuance	Type	Signed Amount ^a	Share of Total Portfolio Financing ^b	Eligibility for green bonds ^c	Average portfolio lifetime ^d	Annual final energy savings ^e	Annual CO2 emissions avoidance ^f
<i>Unit</i>	<i>[yyyy]</i>	<i>[-]</i>	<i>[EUR]</i>	<i>[%]</i>	<i>[%]</i>	<i>[years]</i>	<i>[MWh/year]</i>	<i>[tCO2/year]</i>
<i>BAWAG Group</i>	2024	Low Carbon Building	2.580.975.914	100,0	100	25,8	431.896	45.659
Single-family houses	2024	Low Carbon Building	1.992.927.704	77,2	100	25,7	398.164	42.093
Multi-family houses	2024	Low Carbon Building	588.048.210	22,8	100	26,2	33.732	3.566

^a Legally committed signed amount by the issuer for the portfolio or portfolio components eligible for green bond financing.

^b Portion of the total portfolio cost that is financed by the issuer.

^c Portion of the total portfolio cost that is eligible for Green Bond.

^d average remaining term of Green Bond loan within the total portfolio.

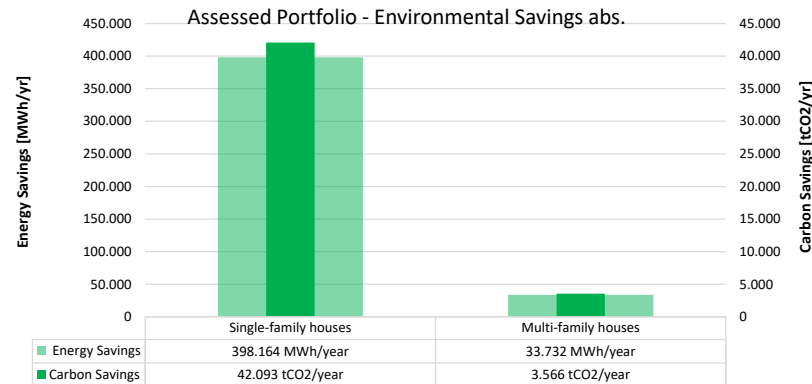
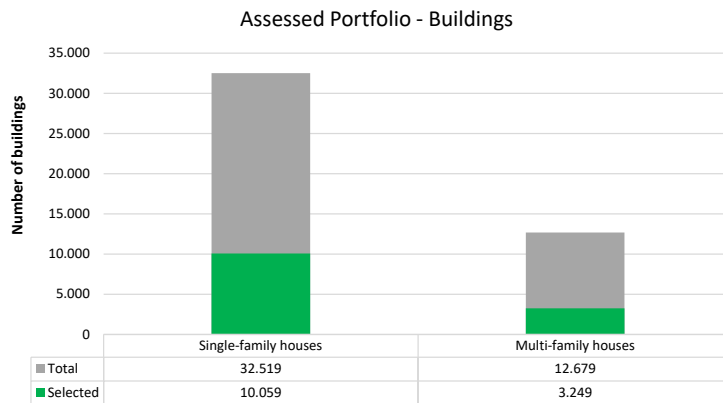
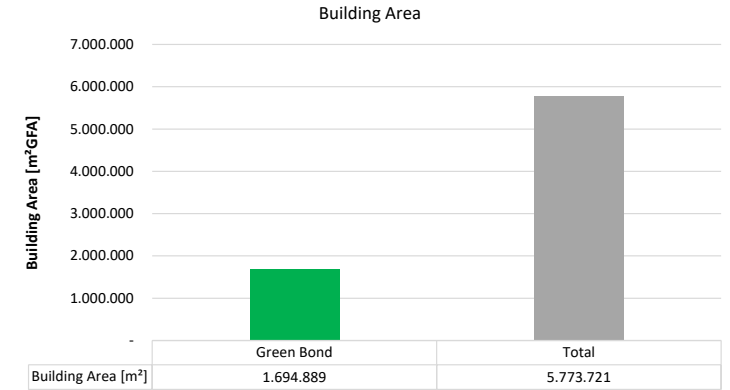
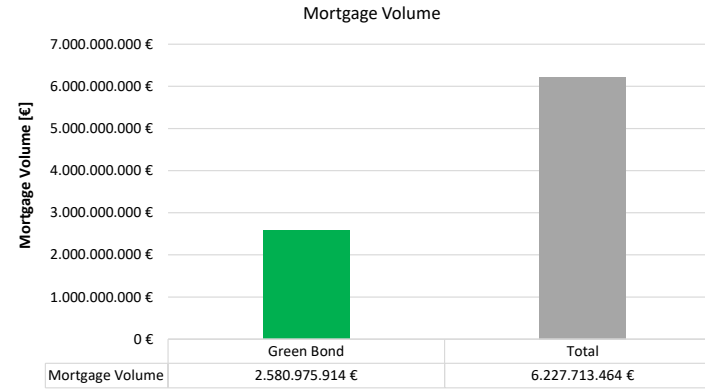
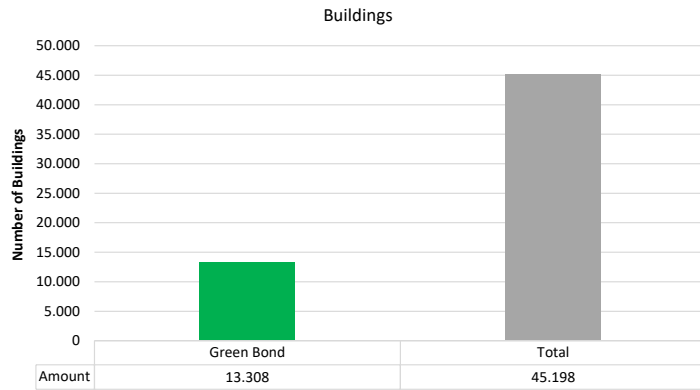
^e Final energy savings calculated using the difference between the top 15% and the national building stock benchmarks

^f Greenhouse gas emissions avoidance determined by multiplying the final energy savings with the carbon emissions intensity

The portfolio assessment applies the established green bond methodology with its eligibility criteria for Austrian residential real estate.

GREEN BOND IMPACT REPORT BAWAG GROUP

Austrian residential real estate portfolio – Impact Reporting





Austrian Green Bond Portfolio:

Buildings:	13.308
Exposure:	2.580.975.914 EUR
Energy savings:	431.896 MWh/year
Carbon emissions savings:	45.659 tCO ₂ /year

MANAGEMENT SUMMARY – SUSTAINABLE FINANCE



EU Taxonomy eligibility criteria for climate change mitigation – residential assets in the Netherlands

<i>Economic activity</i>	<i>Screening criteria</i>	 Single-Family houses¹	 Multi-Family houses²		
7.1 Construction of new buildings	Nearly Zero-Energy Building Primary energy demand ³ minus 10%	At least 10% lower than the requirements for the primary energy demand of the "Nearly Zero-Energy Building" standard (NZEB). Based on the "Energy Performance of Buildings Directive (EPBD)", the NZEB-standard is implemented in the "BENG" (Bijna Energieneutrale Gebouwen) requirements (since 01.01.2021). There are thresholds for final energy demand (BENG 1), primary energy use (BENG 2) and share of renewable energies (BENG3), whereby the BENG 2 value defines the NZEB standard.			
	Indicative reference values PEC⁴ minus 10%: NZEB -10%	Residential Buildings general: PEC ≤ 45 kWh/(m ² a) Ground Floor: PEC ≤ 27 kWh/(m ² a)			
7.2 Renovation of existing buildings	Major Renovation Cost-optimal level ⁶	The building renovation complies with the applicable requirements for major renovations as defined in the Energy Performance of Buildings Directive (EPBD), based on the cost-optimal level for residential buildings: BENG 2; PEC ≤ 30 - 70 kWh/(m ² a)			
	Property Upgrade Relative improvement ≥ 30% in primary energy demand	Relative improvement in primary energy demand ≥ 30% in comparison to the performance of the building before the renovation. Reductions through renewable energy sources are not taken into account.			
7.7 Acquisition and ownership of buildings⁶	Energy Performance Certificate EPC at least class A ⁵	Energy performance class A or better			
		SFH & MFH	Until 31.12.2020	Since 01.01.2021	
			Energy-Index	Primary energy demand in kWh/(m ² a)	Primary energy use in kWh/(m ² a)
		A++++ ≤	-	-	0
		A+++ ≤	-	-	50
		A++ ≤	-	-	75
A+ ≤	-	-	105		
A ≤	1,05	96,8	160		

¹SFH: Single-Family house with 1-2 units | ²MFH: Multi-Family house with >2 units | ³Primary energy demand = Primärenergiebedarf | ⁴Primary energy use = Primary energy consumption (PEC) = Primärenergieverbrauch | ⁵ The EU Taxonomy Regulation focuses on primary energy demand in its eligibility criteria. In the Netherlands, energy performance certificates (EPCs) are issued based on primary energy use. In this study, therefore the top 15%-eligibility criteria are also indicated on metered consumption figures. | ⁶The latest public available report on the calculation of 'cost-optimal levels of minimum energy performance requirements' is from 2018/2019, a revised version is expected to be published in 2023/2024.

MANAGEMENT SUMMARY – SUSTAINABLE FINANCE


EU Taxonomy eligibility criteria for climate change mitigation – residential assets in the Netherlands

Economic activity	Screening criteria	 Single-Family houses	 Multi-Family houses		
7.7 Acquisition and ownership of buildings	top 15% of the national existing building stock	Energy performance class			
		SFH & MFH	Until 31.12.2020		Since 01.01.2021
			Energy-Index	Primary energy demand ¹ in kWh/(m ² a)	Primary energy use ² in kWh/(m ² a)
A++++ ≤	-	-	0		
A+++ ≤	-	-	50		
A++ ≤	-	-	75		
A+ ≤	1,05	96,8	105		
Primary energy use: ≤ 72 kWh/(m ² a) Primary energy use of Bouwbesluit 2003 or better Final energy demand ³ : ≤ 72 kWh/(m ² a)		Primary energy use: ≤ 61 kWh/(m ² a) Primary energy use of Bouwbesluit 2011 or better Final energy demand: ≤ 61 kWh/(m ² a)			

¹ Primary energy demand = Primärenergiebedarf | ² Primary energy use = Primary energy consumption (PEC) = Primärenergieverbrauch | ³ Final energy demand = Endenergiebedarf | ⁴ The EU Taxonomy Regulation focuses on primary energy demand in its eligibility criteria. In the Netherlands, energy performance certificates (EPCs) are issued based on primary energy use. In this study, therefore the top 15%-eligibility criteria are also indicated on metered consumption figures.

MANAGEMENT SUMMARY – SUSTAINABLE FINANCE

Energy & CO₂-benchmarks – residential assets in the Netherlands

	Ø-Reference values: Energy				Ø-Reference values: CO ₂ -equivalent		
Building stock weighted reference benchmarks: End energy: Ø105,6 kWh/m ² a Primary energy factor: Ø1,06 Primary energy: Ø111,6 kWh/m ² a	Label	Energy-Index 01/01/2015 ... 31/12/2020	Primary energy demand 01/01/2021 ... 31/05/2022	Primary energy demand 02/06/2022 ...	Building stock weighted reference benchmark: CO ₂ -Intensity: Ø 0,230 kgCO ₂ /kWh	Building stock weighted reference benchmark: 24,3 kgCO ₂ /m ² a	
	A++++			≤ 0			≤ 0
	A+++			> 0 & ≤ 50			> 0 & ≤ 50
	A++			> 50 & ≤ 80			> 50 & ≤ 75
	A+			> 80 & ≤ 110			> 75 & ≤ 105
	A	≤ 1,20		> 110 & ≤ 165			> 105 & ≤ 160
	B	1,21 – 1,40		> 165 & ≤ 195			> 160 & ≤ 190
	C	1,41 – 1,80		> 195 & ≤ 255			> 190 & ≤ 250
	D	1,81 – 2,10		> 255 & ≤ 300			> 250 & ≤ 290
	E	2,11 – 2,40		> 300 & ≤ 345			> 290 & ≤ 335
F	2,41 – 2,70		> 345 & ≤ 390	> 335 & ≤ 380			
G	> 2,70		> 390	> 380			

Source: Drees & Sommer low carbon building benchmarks. Benchmarks are valid for assets located in the Netherlands. Status: March 2024

GREEN BOND IMPACT REPORT BAWAG GROUP

Dutch residential real estate portfolio – Impact Reporting

Low Carbon Buildings	Year of Issuance	Type	Signed Amount ^a	Share of Total Portfolio Financing ^b	Eligibility for green bonds ^c	Average portfolio lifetime ^d	Annual final energy savings ^e	Annual CO2 emissions avoidance ^f
<i>Unit</i>	<i>[yyyy]</i>	<i>[-]</i>	<i>[EUR]</i>	<i>[%]</i>	<i>[%]</i>	<i>[years]</i>	<i>[MWh/year]</i>	<i>[tCO2/year]</i>
BAWAG P.S.K.	2024	Low Carbon Building	518.426.050	100,0	100	26,3	8.656	1.991
Single family houses - NL	2024	Low Carbon Building	446.112.545	86,1	100	26,3	7.938	1.826
Multy family houses - NL	2024	Low Carbon Building	72.313.505	13,9	100	26,6	717	165

^a Legally committed signed amount by the issuer for the portfolio or portfolio components eligible for green bond financing.

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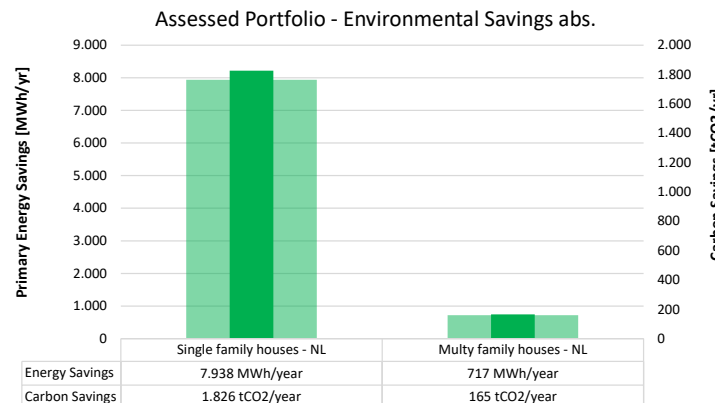
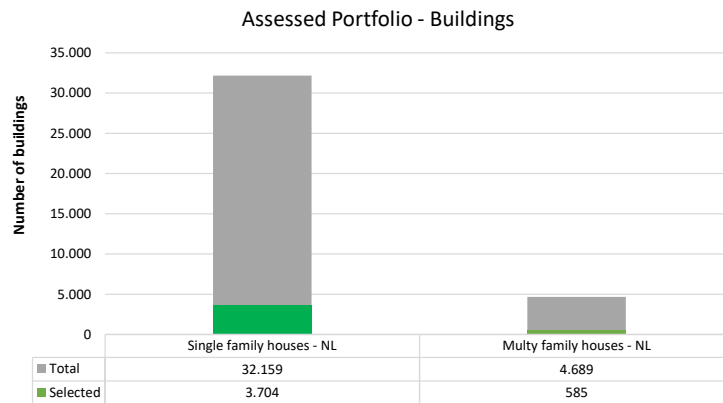
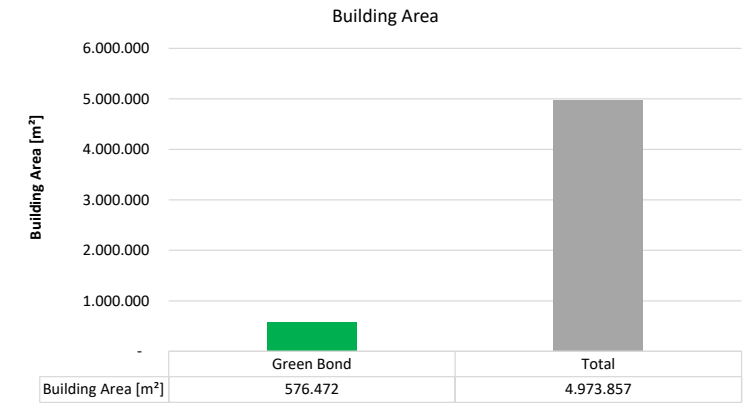
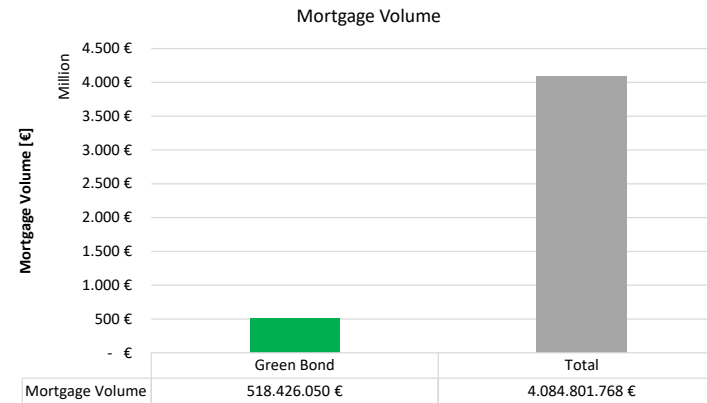
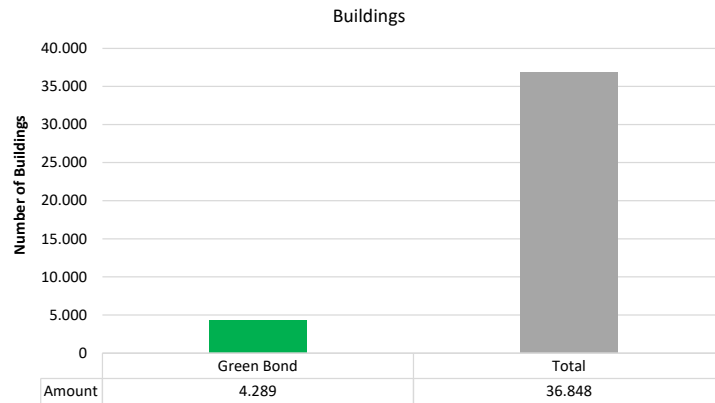
^d average remaining term of Green Bond loan within the total portfolio.

^e Final energy savings calculated using the difference between the top 15% and the national building stock benchmarks

^f Greenhouse gas emissions avoidance determined by multiplying the final energy savings with the carbon emissions intensity

GREEN BOND IMPACT REPORT BAWAG GROUP

Dutch residential real estate portfolio – Impact Reporting





Dutch Green Bond Portfolio:

- Buildings: 4.289
- Exposure: 518.426.050 EUR
- Energy savings: 8.656 MWh/year
- Carbon emissions savings: 1.991 tCO₂/year

MANAGEMENT SUMMARY – SUSTAINABLE FINANCE


EU Taxonomy eligibility criteria for climate change mitigation – residential assets in Germany

Economic activity	Screening criteria	 Single-Family houses¹	 Multi-Family houses²
7.1 Construction of new buildings	Nearly Zero-Energy Building Primary energy demand ³ minus 10%	At least 10% lower than the requirements for the primary energy demand of the "Nearly Zero-Energy Building" standard (NZEB). Based on the "Energy Performance of Buildings Directive (EPBD)", the NZEB standard is implemented in the GEG 2023 (Gebäudeenergiegesetz) requirements (updated version of the GEG 2020).	
7.2 Renovation of existing buildings	Major Renovation Cost optimal level ⁷	The building complies with the applicable requirements for major renovations as defined in the Energy Performance of Buildings Directive (EPBD), based on the cost-optimal level as defined in EnEV 2016, GEG 2020 and GEG 2023. (EnEV 2016 as EnEV 2014 with amendments from 01.01.2016, GEG 2020 from 01.11.2020, GEG 2023 from 01.01.2023)	
	Property Upgrade Relative improvement $\geq 30\%$ in primary energy demand	Relative improvement in primary energy demand $\geq 30\%$ in comparison to the performance of the building before the renovation ¹⁰ .	
7.7 Acquisition and ownership of buildings	Energy Performance Certificate EPC at least class A	Energy performance class A+ or A Final energy demand ⁴ : A+ ≤ 30 A ≤ 50 kWh/(m ² a)	
	top 15% of the national existing building stock ⁵	Energy performance class A+, A or B with a final energy demand: A+ ≤ 30 A ≤ 50 kWh/(m ² a) B ≤ 75 kWh/(m ² a)	Energy Performance class A+, A, or B with a final energy demand: A+ ≤ 30 A ≤ 50 B* ≤ 69 kWh/(m ² a) ⁸
		Primary energy demand: ≤ 74 kWh/(m ² a) Primary energy demand: EnEV 2009 or better Final metered energy use ⁶ : ≤ 70 kWh/(m ² a) Carbon intensity CO ₂ : ≤ 17 kgCO ₂ /(m ² a)	

¹SFH: Single-Family house with 1-2 units | ²MFH: Multi-Family house with >2 units | ³Primary energy demand = Primärenergiebedarf | ⁴Final energy demand = Endenergiebedarf | ⁵The EU Taxonomy Regulation focuses on primary energy demand in its eligibility criteria. In Germany, energy performance certificates (EPCs) can be issued based on calculated primary energy demand as well as metered primary energy consumption. In this study, therefore the top 15%- eligibility criteria are also indicated on metered consumption figures. | ⁶Final metered energy use = gemessener Endenergieverbrauch | ⁷The latest public available report on the calculation of 'cost-optimal levels of minimum energy performance requirements' is from August 2018, a revised version is expected to be published in 2023/2024. | ⁸B* The official EPC label B is set < 75 kWh/(m²a). For Multi-Family houses, the top 15% threshold is set to EPC label B with a maximum of 69 kWh/(m²a), including not the full scale of the possible EPC label B range, due to the top15% distribution of the representative existing building stock in Germany. | ⁹Distinguishing between residential and non-residential existing national building stock, the top15% approach can be set to include the EPC label B for residential assets in Germany. However, we do recommend to further break it down into single-family and multi-family due to the available public information on the existing building stock and its distribution among the building usages in Germany. | ¹⁰Reductions through renewable energy sources are not taken into account according to the EU Taxonomy.

MANAGEMENT SUMMARY – SUSTAINABLE FINANCE

Energy & CO₂-Benchmarks – residential buildings in Germany

 Ø-Reference values: Energy		Ø-Reference values: CO ₂																					
Building stock weighted reference benchmarks: Final energy: Ø 138 kWh/(m ² a) Primary energy factor: Ø 1,06 Primary energy: Ø 146 kWh/(m ² a)	<table border="1"> <thead> <tr> <th>Label</th> <th>End energy demand</th> </tr> </thead> <tbody> <tr> <td>A+</td> <td>≤ 30 kWh/(m²a)</td> </tr> <tr> <td>A</td> <td>≤ 50 kWh/(m²a)</td> </tr> <tr> <td>B</td> <td>≤ 75 kWh/(m²a)</td> </tr> <tr> <td>C</td> <td>≤ 100 kWh/(m²a)</td> </tr> <tr> <td>D</td> <td>≤ 130 kWh/(m²a)</td> </tr> <tr> <td>E</td> <td>≤ 160 kWh/(m²a)</td> </tr> <tr> <td>F</td> <td>≤ 200 kWh/(m²a)</td> </tr> <tr> <td>G</td> <td>≤ 250 kWh/(m²a)</td> </tr> <tr> <td>H</td> <td>> 250 kWh/(m²a)</td> </tr> </tbody> </table>	Label	End energy demand	A+	≤ 30 kWh/(m ² a)	A	≤ 50 kWh/(m ² a)	B	≤ 75 kWh/(m ² a)	C	≤ 100 kWh/(m ² a)	D	≤ 130 kWh/(m ² a)	E	≤ 160 kWh/(m ² a)	F	≤ 200 kWh/(m ² a)	G	≤ 250 kWh/(m ² a)	H	> 250 kWh/(m ² a)	Building stock weighted reference benchmark: CO ₂ -Intensity: Ø 0,240 kgCO ₂ /kWh	Building stock weighted reference benchmark: 33 kgCO ₂ /(m ² a)
Label	End energy demand																						
A+	≤ 30 kWh/(m ² a)																						
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Source: Drees & Sommer low carbon building benchmarks. Benchmarks are valid for assets located in Germany. Status: March 2024

GREEN BOND IMPACT REPORT BAWAG GROUP

German residential real estate portfolio – Impact Reporting

Low Carbon Buildings	Year of Issuance	Type	Signed Amount ^a	Share of Total Portfolio Financing ^b	Eligibility for green bonds ^c	Annual final energy savings ^e	Annual CO2 emissions avoidance ^f
<i>Unit</i>	<i>[yyyy]</i>	<i>[-]</i>	<i>[EUR]</i>	<i>[%]</i>	<i>[%]</i>	<i>[MWh/year]</i>	<i>[tCO2/year]</i>
<i>BAWAG Group</i>	<i>2024</i>	<i>Low Carbon Building</i>	<i>305.360.493</i>	<i>100</i>	<i>100</i>	<i>100.810</i>	<i>24.194</i>
Einfamilienhaus	2024	Low Carbon Building	221.407.970	72,5	100	85.904	20.617
Mehrfamilienhaus	2024	Low Carbon Building	83.952.523	27,5	100	14.906	3.577

^a Legally committed signed amount by the issuer for the portfolio or portfolio components eligible for green bond financing.

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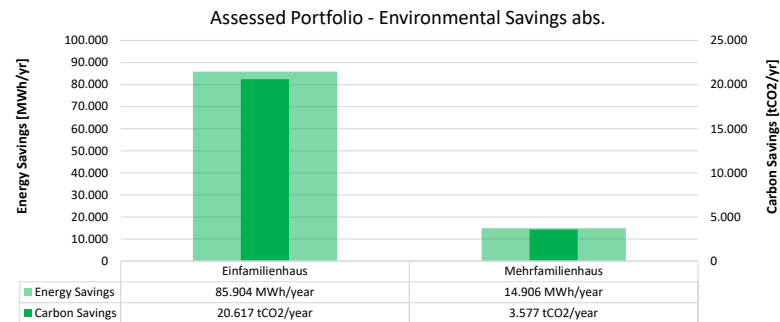
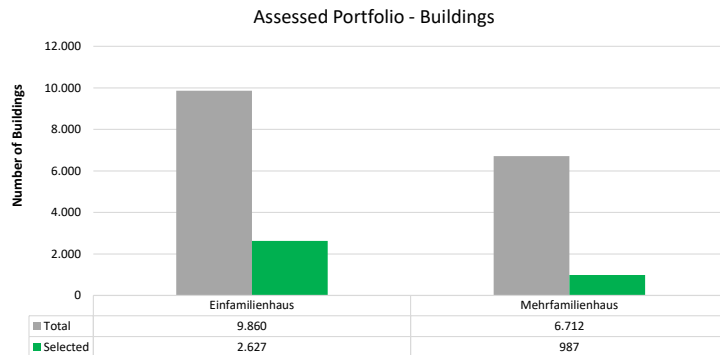
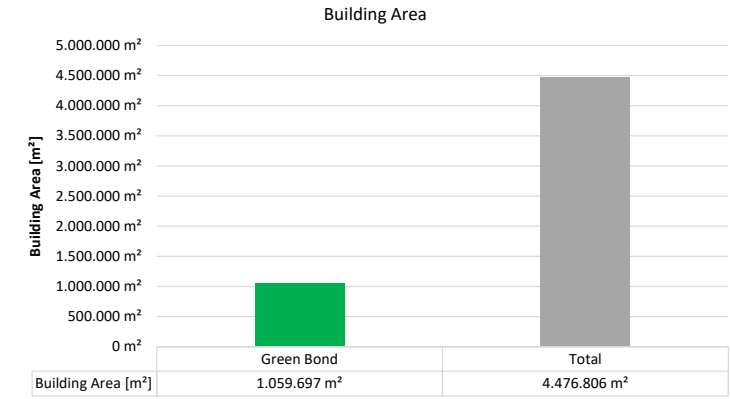
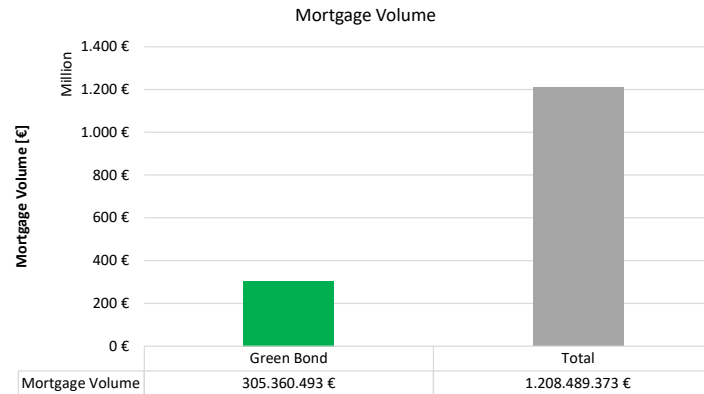
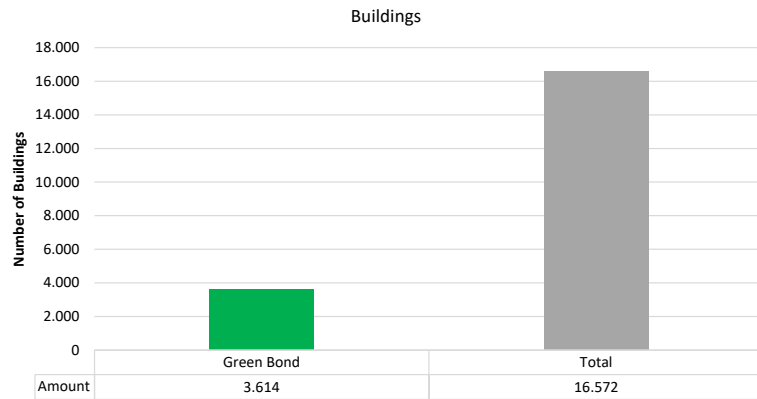
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GREEN BOND IMPACT REPORT BAWAG GROUP

German residential real estate portfolio – Impact Reporting



German Green Bond Portfolio:

- Buildings: 3.614
- Exposure: 305.360.493 EUR
- Energy savings: 100.810 MWh/year
- Carbon emissions savings: 24.194 tCO₂/year



**UNITING
OPPOSITES
TO CREATE
A WORLD
WE WANT
TO LIVE IN**

**DREES &
SOMMER**