GREEN FINANCE

IMPACT REPORTING FOR BAWAG GROUP

RESIDENTIAL PORTFOLIO
AUSTRIA, GERMANY & THE NETHERLANDS

FEBRUARY 2023

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GREEN BOND IMPACT – BAWAG GROUP

Summary

BAWAG Group	Low Carbon Buildings	Signed Amount[a]	Annual final energy savings[b]	Annual CO2 emissions avoidance[c]
	Unit	*[EUR]*	*[MWh/year]*	*[tCO2/year]*
EU Taxonomy - Construction and real estate activities - climate change mitigation	***BAWAG GROUP - AT, DE, NL***	***3.445.960.662***	***470.833***	***71.895***
	Residential - Austria	2.627.067.489	405.615	56.597
	Single-family houses - AT	2.001.865.759	364.365	50.842
	Multi-family houses - AT	625.201.730	41.250	5.756
	Residential - Germany	248.092.444	55.871	12.717
	Single-family houses -DE	171.226.290	26.511	6.034
	Multi-family houses - DE	76.866.154	29.360	6.683
	Residential - Netherlands	570.800.729	9.347	2.580
	Single-family houses - NL	477.475.218	8.394	2.317
	Multi-family houses - NL	93.325.511	953	263

[a] Legally committed signed amount by the issuer for the porfolio 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: February 2023

BAWAG GREEN FINANCE

EU Taxonomy eligibility criteria – climate change mitigation – Residential assets in Austria

			Single family houses (SFH)	Multi family houses (MFH)
New construction or **Existing buildings**	**1)**	**Nearly Zero Energy Buildings** built after 31st December 2020	The primary energy demand is at least 10% lower then 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 **$PED_{H,n.ren.} \leq 36.9$** kWh/m^2_{GFA}a **Major Renovation**: NZEB-10%: Primary energy **$PED_{H,n.ren.} \leq 39.6$** kWh/m^2_{GFA}a	
Existing buildings built before 2021	**2)**	**Energy performance certificate (EPC)**	**Energy performance certificate** with energy efficiency rating of **A or better**, complying with: - heating demand **$HWB_{(Ref),SK} \leq 25$ kWh/m^2_{GFA}a , or** - energy efficiency factor **$f_{GEE,(SK)} \leq 0.85$**	
	3)	**Top 15%** Year of construction (building permit) based on Building Energy Codes (OIB) and Primary Energy Demand (PED)	Salzburg: **2012** All other counties: **2010**	Burgenland: **2017** Vorarlberg: **2013** Salzburg: **2012** All other counties: **2010**
			All counties: **OIB-R6-2007** (OIB-300.6-038/07) with stringency of **01.01.2010**	Burgenland: **OIB-R6-2015** Vorarlberg: **OIB-R6-2011** All other counties: **OIB-R6-2007** with string. **01.01.2010**
Renovation of **Existing buildings**	**4)**	**Major renovation**	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.	
			Relative improvement in **non-renewable primary energy demand ≥ 30%** in comparison to the performance of the building before the renovation.	

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: February 2023. Assets do need to comply only with one of the criteria 1) – 4) to proof eligibility, according to the corresponding asset category and usage.

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Reference benchmarks – Residential assets in Austria

	Ø-Reference values: Energy				Ø-Reference values: CO_2-equivalent	
Single family houses	**Primary energy factor** mean **residential** (heating, hot water): **1.247**	Building-weighted reference benchmark (heating, hot water): **FED_H = 299.8** kWh/m^2_{GFA}a **PED_H = 374.0** kWh/m^2_{GFA}a	**Label**	**Primary Energy Demand total PEB_{SK} [kWh/m²a]**	**CO_2 emission intensity** mean **residential** (heating, hot water): **0.174 kgCO_2/kWh**	Building-weighted reference benchmark (heating, hot water): **52.2** kgCO_2/m^2_{GFA}a
			A++	≤ 60		
			A+	≤ 70		
			A	≤ 80		
Multi family houses		Building-weighted reference benchmark (heating, hot water): **FED_H = 189.9** kWh/m^2_{GFA}a **PED_H = 236.9** kWh/m^2_{GFA}a	B	≤ 160		Building-weighted reference benchmark (heating, hot water): **33.1** kgCO_2/m^2_{GFA}a
			C	≤ 220		
			D	≤ 280		
			E	≤ 340		
			F	≤ 400		
			G	>400		

Source: Drees & Sommer low carbon building benchmarks. Benchmarks are valid for assets located in Austria. Status: February 2023

FED_H / PED_H = mean final/primary energy demand benchmark (heating, hot water)

PEB_{SK} = Primärenergiebedarf Energieausweis – total primary energy demand (heating, hot water, electricity) from EPC

GFA = heated gross floor area

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GREEN BOND IMPACT REPORT BAWAG GROUP

Austrian residential real estate portfolio

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]
Unit	*[yyyy]*	*[-]*	*[EUR]*	*[%]*	*[%]*	*[years]*	*[MWh/year]*	*[tCO2/year]*
BAWAG Group	*2023*	*Low Carbon Building*	*2.627.067.489*	*100,0*	*100*	*27,2*	*405.615*	*56.597*
Single-family houses	2023	Low Carbon Building	2.001.865.759	76,2	100	27,5	364.365	50.842
Multi-family houses	2023	Low Carbon Building	625.201.730	23,8	100	26,6	41.250	5.756

[a] Legally committed signed amount by the issuer for the porfolio 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.

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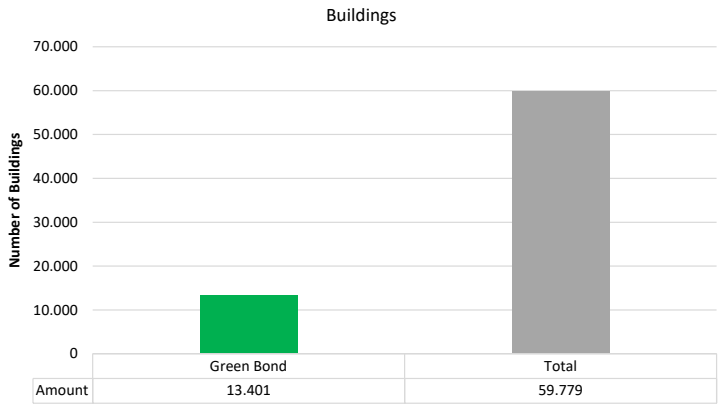
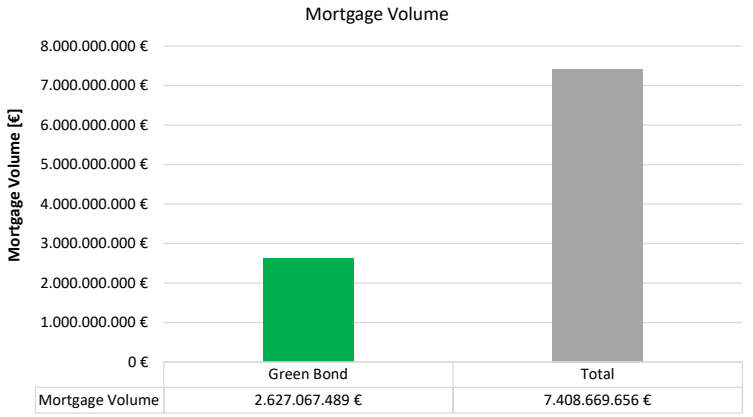
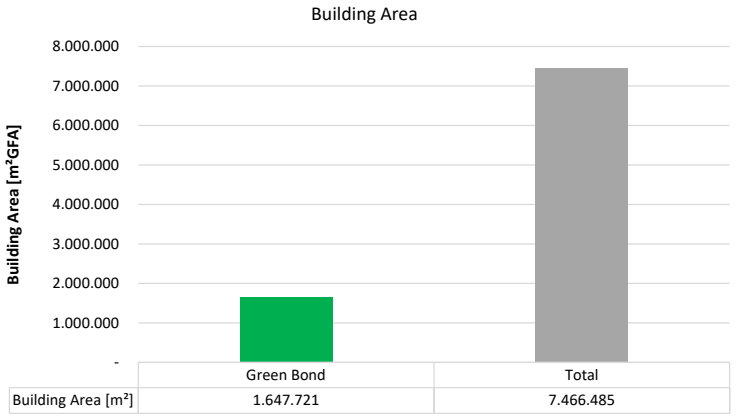
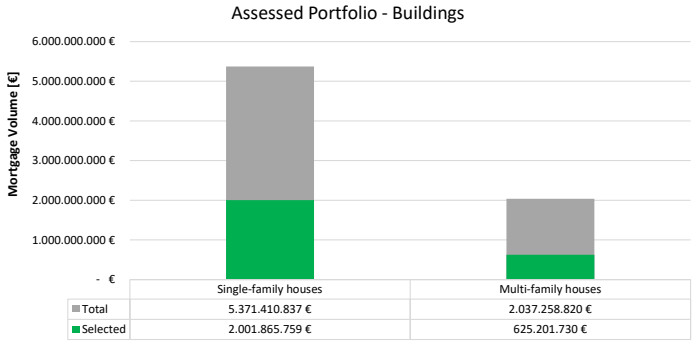
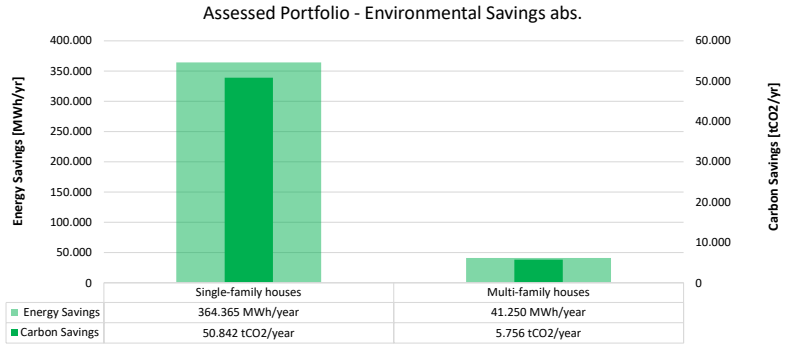
Austrian residential real estate portfolio – Impact Reporting











Austrian Green Bond Portfolio:

Buildings:	13 401
Exposure:	2 627 067 489 EUR
Energy savings:	405 615 MWh/year
Carbon emissions savings:	56 597 tCO_2/year

BAWAG GREEN FINANCE

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

	Low-carbon buildings		Single-Family	Multi-Family
New or existing buildings	**1)**	**Nearly Zero Energy Building** Built 2021 or newer	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 (EBPD)", the NZEB standard is implemented in the BENG requirements. NZEB-10%: Primary energy PE ≤ 45 kWh/m²a (residential building).	
Building Acquisition & Ownership	**2)**	**Nearly Zero Energy Building** Built before 31/12/2020	„Bouwbesluit 2012“ amendment from the 13th December 2019 *(“Besluit van 13 december 2019, houdende wijziging van het Bouwbesluit 2012 en van enkele andere besluiten inzake bijna energie-neutrale nieuwbouw”)* with primary energy PE ≤ 50 kWh/m²a (residential building) | PE ≤ 30 kWh/m²a (other residential function)	
	3)	**Energy performance certificate** Built before 31/12/2020	Final EPCe with energy label A or BENG EPCe with energy label A+ or better	Final EPCe with energy label A or BENG EPCe with energy label A+ in combination with an EPCo (or comparable) ≤ 0.6 or in combination with year of construction newer than 2010
	4)	**Top15% Building Energy code** primary energy requirement Built before 31/12/2020	Building code 2003 incl. amendments from 22/10/2010 with energy requirement EPCo ≤ 0.6 or better	
Renovation	**5)**	**Property Upgrade**	Major renovation meets cost-optimal minimum energy performance requirements according to the Energy Performance of Buildings Directive (EBPD).	
			Relative improvement in non-renewable primary energy demand ≥ 30% in comparison to the performance of the building before the renovation.	

Drees & Sommer low carbon building criteria are based on EU Taxonomy (Delegated Act – July 2021 – technical criteria for climate change mitigation). Criteria are valid for assets located in the Netherlands. Status: February 2023. Assets do need to comply only with one of the criteria 1) – 4) to proof eligibility, according to the corresponding asset category and usage.

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Reference benchmarks – Residential assets in the Netherlands

Ø-Reference values: Energy					Ø-Reference values: CO_2-equivalent	
Building stock weighted reference benchmarks: **End energy:** Ø108.2 kWh/m²a **Primary energy factor:** Ø0.971 **Primary energy:** Ø105.0 kWh/m²a	**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: Ø0.235 kgCO_2/kWh	Building stock weighted reference benchmark: 25.4 kgCO_2/m²a
	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: February 2023

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GREEN BOND IMPACT REPORT BAWAG GROUP

Dutch residential real estate portfolio

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]
Unit	*[yyyy]*	*[-]*	*[EUR]*	*[%]*	*[%]*	*[years]*	*[MWh/year]*	*[tCO2/year]*
BAWAG GROUP	*2023*	*Low Carbon Building*	*570.800.729*	*100,0*	*100*	*27,0*	*9.347*	*2.580*
Single family houses - NL	2023	Low Carbon Building	477.475.218	83,7	100	26,9	8.394	2.317
Multy family houses - NL	2023	Low Carbon Building	93.325.511	16,3	100	27,7	953	263

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

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

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

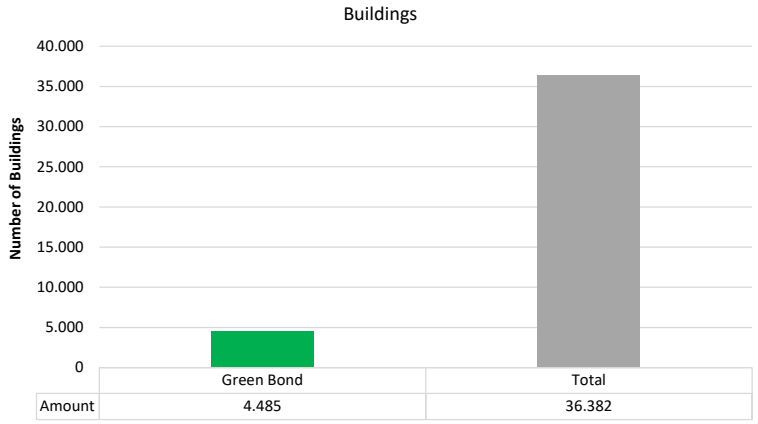
[e] Final energy savings calculated using the difference between the top 15% and the national building stock benchmarks

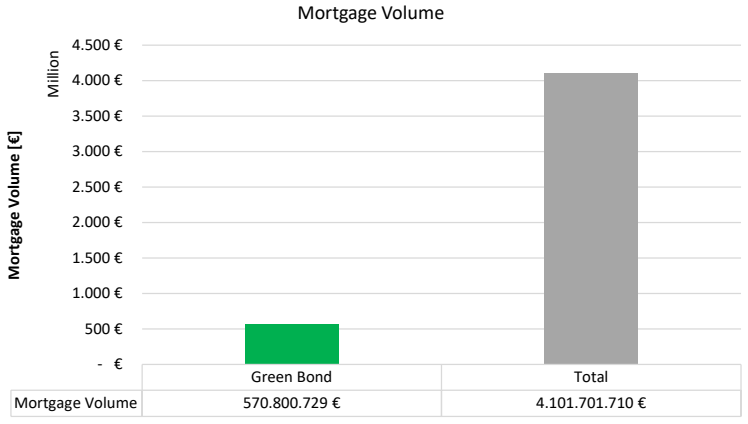
[f] Greenhouse gas emissions avoidance determined by multiplying the final energy savings with the carbon emissions intensity

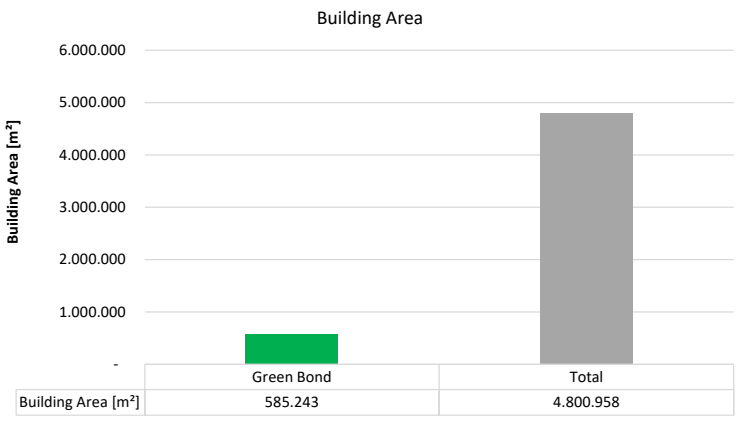
The portfolio assessment applies the established green bond methodology with its eligibility criteria for Dutch residential real estate.

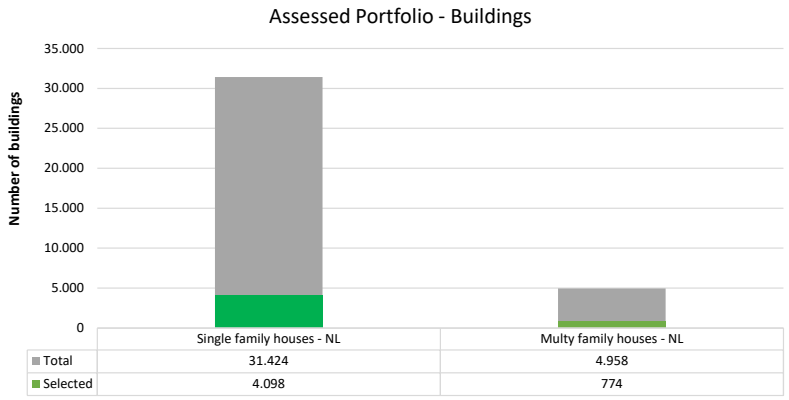
GREEN BOND IMPACT REPORT BAWAG GROUP

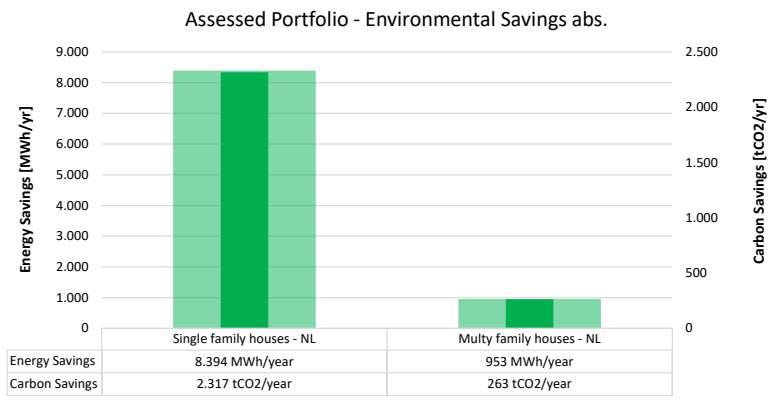
The Netherlands residential real estate portfolio – Impact Reporting











Dutch Green Bond Portfolio:

- Buildings: 4 485
- Exposure: 570 800 729 EUR
- Energy savings: 9 347 MWh/year
- Carbon emissions savings: 2 580 tCO_2/year

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

Economic activity	*Screening criteria*	Single-Family houses[1]	Multi-Family houses[2]
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 (EBPD)", the NZEB-standard is implemented in the GEG 2020 (Gebäudeenergiegesetz) requirements.	
7.2 Renovation of existing buildings	**Major Renovation** Cost optimal level	The building renovation complies with the applicable requirements for major renovations as defined in the Energy Performance of Buildings Directive (EBPD), based on the cost optimal level as defined in EnEV 2016. (EnEV 2016 as EnEV 2014 with amendments from 01.01.2016)	
	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 buildings	**Energy Performance Certificate** EPC at least class A	Energy performance class A+ or A Final energy demand[4]: A+ ≤ 30 | A ≤ 50 kWh/(m²a)	
	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/(m²a) |B ≤ 75 kWh/(m²a)	Energy performance class A+ or A with a final energy demand: A+ ≤ 30 | A ≤ 50 kWh/(m²a)
		Primary energy demand: ≤ 74 kWh/(m²a) Primary energy demand: EnEV 2009 or better Final metered energy use[6]: ≤ 70 kWh/(m²a)	

[1]SFH: Single-Family house with 1-2 units | [2] MFH: Multi-Family house with >2 units| [3] Primary energy demand = Primärenergiebedarf | [4] Final energy demand = Endenergiebedarf | [5] The 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. | [6] Final metered energy use = gemessener Endenergieverbrauch

Source: Drees & Sommer low carbon building criteria are based on EU Taxonomy (Delegated Act – July 2021). Criteria are valid for assets located in Germany. Status: February 2023

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Energy & CO_2-Benchmarks – Residential buildings in Germany

Ø-Reference values: Energy – Residential Buildings

Building stock weighted reference benchmarks:

Final energy:
Ø147.2 kWh/(m²a)

Primary energy factor:
Ø1.05

Primary energy:
Ø155 kWh/(m²a)

Label	End energy demand
A+	≤ 30 kWh/(m²a)
A	≤ 50 kWh/(m²a)
B	≤ 75 kWh/(m²a)
C	≤ 100 kWh/(m²a)
D	≤ 130 kWh/(m²a)
E	≤ 160 kWh/(m²a)
F	≤ 200 kWh/(m²a)
G	≤ 250 kWh/(m²a)
H	> 250 kWh/(m²a)

Building stock weighted reference benchmark:
CO_2-Intensity:
Ø0.239 kgCO_2/kWh

Building stock weighted reference benchmark:
35.2 kgCO_2/(m²a)

Source: Drees & Sommer low carbon building benchmarks. Benchmarks are valid for assets located in Germany. Status: February 2023

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GREEN BOND PORTFOLIO ASSESSMENT

German residential real estate portfolio

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]
Unit	*[yyyy]*	*[-]*	*[EUR]*	*[%]*	*[%]*	*[MWh/year]*	*[tCO2/year]*
BAWAG Group	*2023*	*Low Carbon Building*	*248.092.444*	*100*	*100*	*55.871*	*12.717*
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[f] Greenhouse gas emissions avoidance determined by multiplying the final energy savings with the carbon emissions intensity

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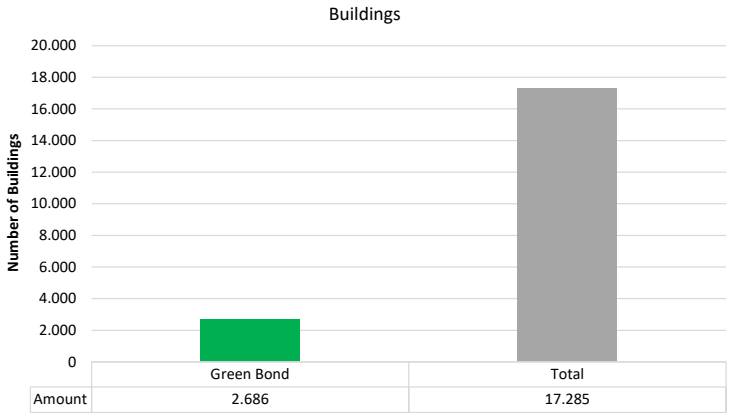
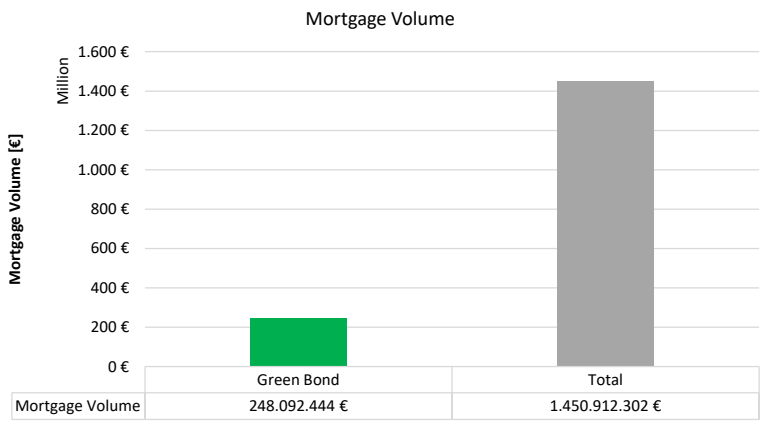
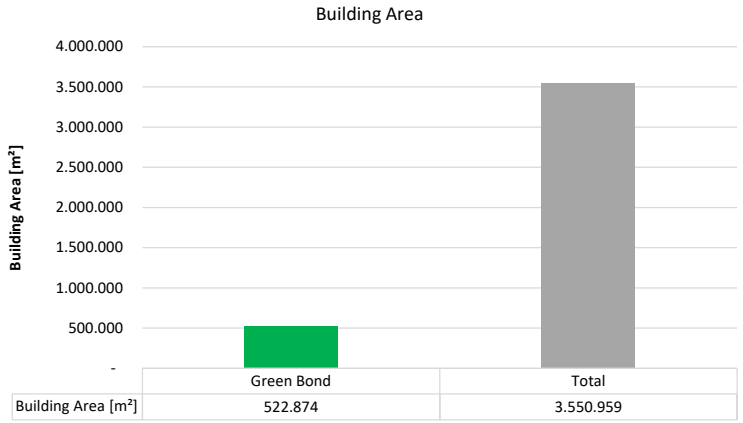
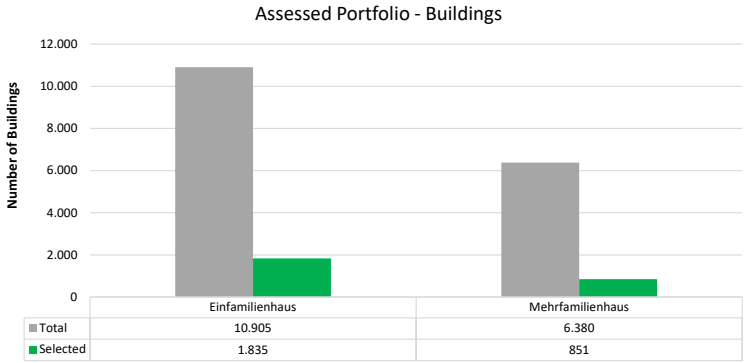
GREEN BOND IMPACT REPORT BAWAG GROUP

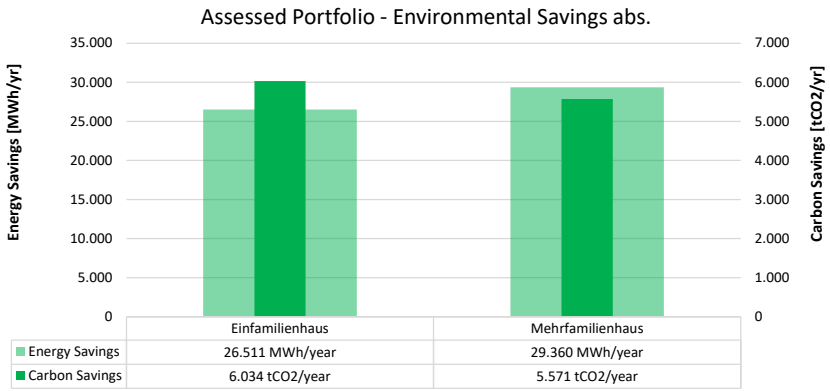
German residential real estate portfolio – Impact Reporting











German Green Bond Portfolio:

- Buildings: 2 686
- Exposure: 248 092 444 EUR
- Energy savings: 55 871 MWh/year
- Carbon emissions savings: 12 717 tCO_2/year

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SUCCESSFUL BUILDINGS

LIVEABLE CITIES

HIGH-YIELD PORTFOLIOS

POWERFUL INFRASTRUCTURE

FUTURE-ORIENTED CONSULTING

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