

**DREES &  
SOMMER**



# **BAWAG GROUP**

## **SUSTAINABLE FINANCE**


**IMPACT REPORTING – RESIDENTIAL  
BUILDINGS**

**28.04.2025**

**TSCHÄTSCH | SONNENSCHN |  
GREIBINGER | EISELE**

# GREEN BOND IMPACT – BAWAG GROUP


## Summary

	Low Carbon Buildings	Year of Issuance	Type	Signed Amount <sup>a</sup>	Annual final energy savings <sup>b</sup>	Annual CO2 emissions avoidance <sup>c</sup>
	Unit	[yyyy]	[-]	[EUR]	[MWh/year]	[tCO2/year]
EU Taxonomy - Construction and real estate activities - climate change mitigation	<b>BAWAG Group - AT, DE, NL</b>	<b>2024</b>	<b>Low Carbon Building</b>	<b>5.908.694.447</b>	<b>407.561</b>	<b>62.890</b>
	<i>Residential - Austria</i>	<i>2024</i>	<i>Low Carbon Building</i>	<i>2.411.928.510</i>	<i>311.811</i>	<i>40.224</i>
	Single family houses - AT	2024	Low Carbon Building	1.876.499.781	282.349	36.423
	Multy family houses - AT	2024	Low Carbon Building	535.428.729	29.463	3.801
	<i>Residential - Netherlands</i>	<i>2024</i>	<i>Low Carbon Building</i>	<i>3.259.853.901</i>	<i>52.335</i>	<i>12.246</i>
	Single family houses - NL	2024	Low Carbon Building	2.805.812.763	46.884	10.971
	Multy family houses - NL	2024	Low Carbon Building	454.041.138	5.452	1.276
	<i>Residential - Germany</i>	<i>2024</i>	<i>Low Carbon Building</i>	<i>236.912.036</i>	<i>43.414</i>	<i>10.419</i>
	Single family houses - DE	2024	Low Carbon Building	163.582.736	27.242	6.538
	Multy family houses - DE	2024	Low Carbon Building	73.329.300	16.172	3.881
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 2025

# MANAGEMENT SUMMARY


## Overview eligibility criteria – Austria – April 2025

			Single family houses	Multi family houses
New construction or Existing buildings	1)	Nearly Zero Energy Buildings built after 31 <sup>st</sup> 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“-“Kostenoptimalität und EU-Taxonomie” (OIB-330.6-070/24)	
			OIB-RL6:2019: New Construction: NZEB-10%: $PED_{H,n.ren.} \leq 36.9 \text{ kWh/m}^2_{GFAa}$ OIB-RL6:2023: New Construction: NZEB-10%: $PED_{H,n.ren.} \leq 21.6 \text{ kWh/m}^2_{GFAa}$	
Existing buildings built before 2021	2)	Energy performance certificate (EPC)	Energy performance certificate with energy efficiency rating of <b>A or better</b> . - heating demand $HWB_{Ref,SK}$ of <b>25 kWh/m<sup>2</sup><sub>GFAa</sub></b> or less, or - energy efficiency factor $f_{GEE,SK}$ of <b>0.85</b> or less, or - primary energy demand $PEB_{SK}$ of <b>80 kWh/m<sup>2</sup><sub>GFAa</sub></b> or less	
	3a)	Top 15% Building energy code	All counties: OIB-R6-2007 (OIB-300.6-038/07) with stringency of <b>01.01.2010</b>	Burgenland: OIB-R6-2015 Vorarlberg: OIB-R6-2011 All other counties: OIB-R6-2007 with string. <b>01.01.2010</b>
	3b)	Top 15% Year of construction/ permit	Salzburg: <b>2012</b> All other counties: <b>2010</b>	Burgenland: <b>2017</b> Vorarlberg: <b>2013</b> Salzburg: <b>2012</b> All other counties: <b>2010</b>
	3c)	Top 15% Year of major renovation	Oberösterreich: <b>2018</b> All other counties: <b>2017</b>	Oberösterreich: <b>2018</b> Burgenland, Vorarlberg: <b>2022</b> All other counties: <b>2017</b>
Renovation of Existing buildings	4a)	Major renovation	Major renovation meets cost-optimal <b>minimum energy performance</b> 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, or - $PED_{H,n.ren.} \leq 44 \text{ kWh/m}^2_{GFAa}$ or - energy efficiency factor $f_{GEE,(RK)} \leq 1.05$	
	4b)	Property upgrade	Relative <b>improvement in non-renewable primary energy demand</b> $\geq 30\%$ 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: **April 2025**. Assets do need to comply only with one of the criteria 1) – 4) to proof eligibility, according to the corresponding asset category and usage.

# MANAGEMENT SUMMARY

## Overview reference benchmarks – Austria – April 2025

	Ø-Reference values: Energy		Ø-Reference values: CO <sub>2</sub> -equivalent	
Single family houses	Primary energy factor mean residential (heating, hot water): <b>1.288</b>	Building-weighted reference benchmark: <b>FED<sub>H</sub> = 293.8 kWh/m<sup>2</sup><sub>GFA</sub>a</b> <b>PED<sub>H</sub> = 378.4 kWh/m<sup>2</sup><sub>GFA</sub>a</b>	CO <sub>2</sub> emission intensity mean residential (heating, hot water): <b>0.129 kgCO<sub>2</sub>/kWh</b>	Building-weighted reference benchmark (heating, hot water): <b>37.8 kgCO<sub>2</sub>/m<sup>2</sup><sub>GFA</sub>a</b>
Multi family houses		Building-weighted reference benchmark: <b>FED<sub>H</sub> = 186.1 kWh/m<sup>2</sup><sub>GFA</sub>a</b> <b>PED<sub>H</sub> = 239.6 kWh/m<sup>2</sup><sub>GFA</sub>a</b>		Building-weighted reference benchmark (heating, hot water): <b>23.9 kgCO<sub>2</sub>/m<sup>2</sup><sub>GFA</sub>a</b>

*FED<sub>H</sub> = final energy demand for heating and hot water*  
*FED<sub>H</sub> = final energy demand for heating and cooling*  
*GFA = heated gross floor area*

*PED<sub>H,c</sub> = primary energy demand for heating and hot water*  
*PED<sub>H,c</sub> = primary energy demand for heating and cooling*

# MANAGEMENT SUMMARY

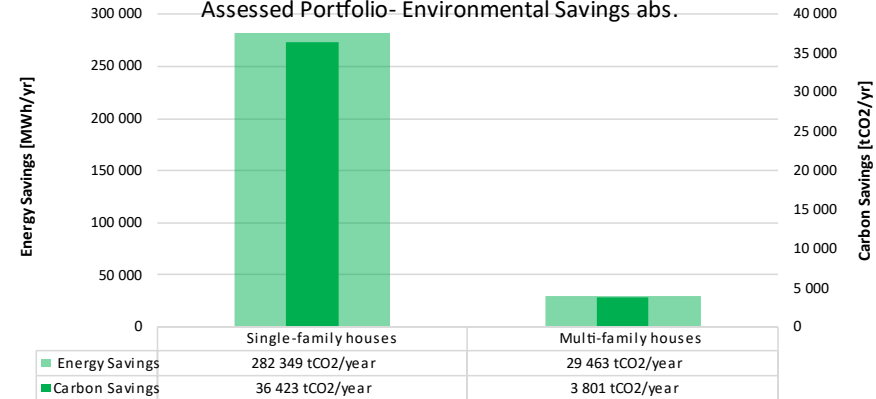
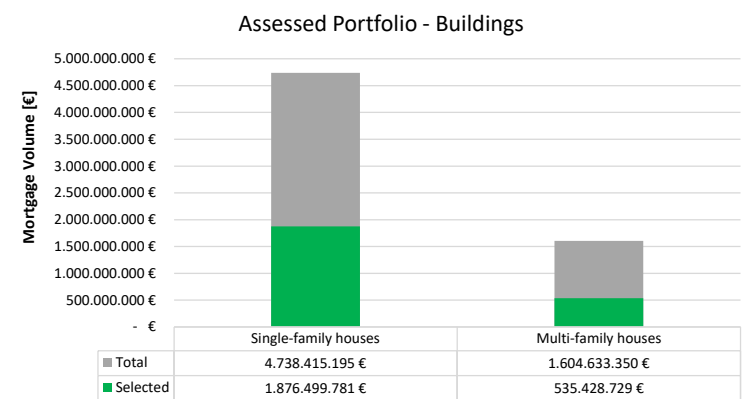
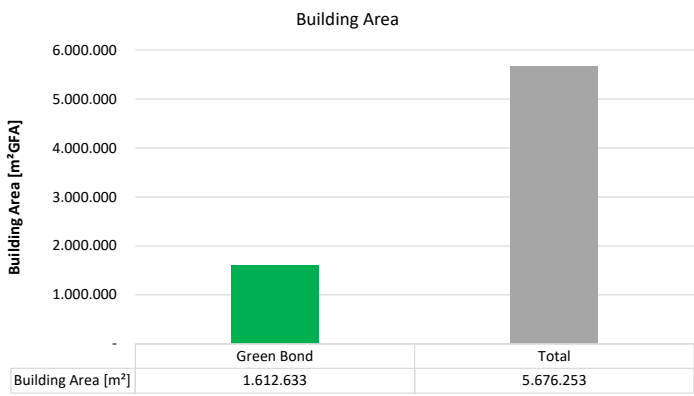
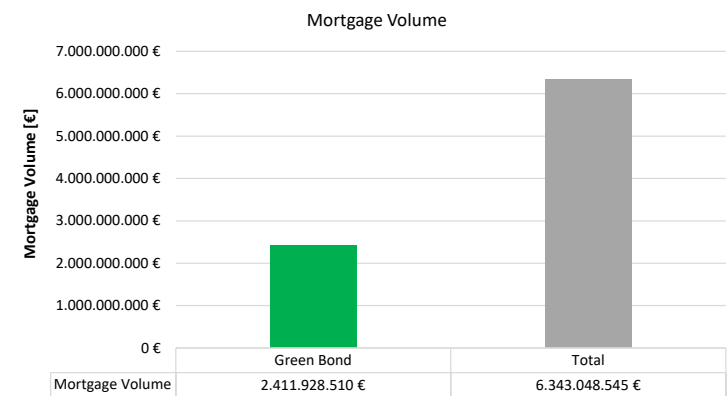
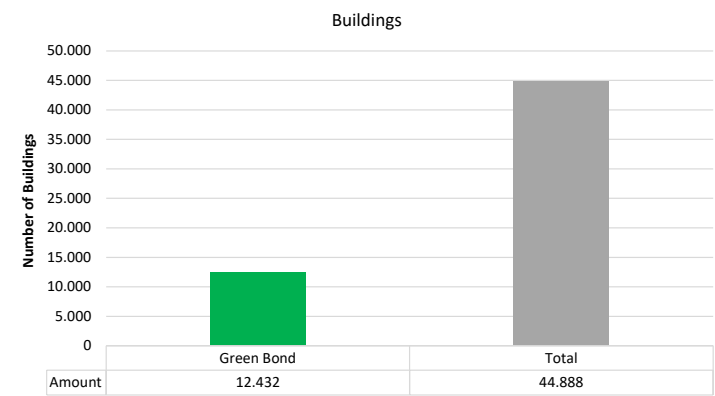
## Austrian residential real estate portfolio

Low Carbon Buildings	Year of Issuance	Type	Signed Amount <sup>a</sup>	Share of Total Portfolio Financing <sup>b</sup>	Eligibility for green bonds <sup>c</sup>	Average portfolio lifetime <sup>d</sup>	Annual final energy savings <sup>e</sup>	Annual primary energy savings <sup>f</sup>	Annual CO2 emissions avoidance <sup>g</sup>
Unit	[yyyy]	[-]	[EUR]	[%]	[%]	[years]	[MWh/year]	[MWh/year]	[tCO2/year]
BAWAG Group	2024	Low Carbon Building	2.411.928.510	100,0	100	24,9	311.811	401.613	40.224
Single-family houses	2024	Low Carbon Building	1.876.499.781	77,8	100	24,6	282.349	363.665	36.423
Multi-family houses	2024	Low Carbon Building	535.428.729	22,2	100	25,6	29.463	37.948	3.801
<sup>a</sup> Legally committed signed amount by the issuer for the portfolio or portfolio components eligible for green bond financing. <sup>b</sup> Portion of the total portfolio cost that is financed by the issuer. <sup>c</sup> Portion of the total portfolio cost that is eligible for Green Bond. <sup>d</sup> average remaining term of Green Bond loan within the total portfolio. <sup>e</sup> Final energy savings calculated using the difference between the top 15% and the national building stock benchmarks <sup>f</sup> Primary energy savings determined by multiplying the final energy savings with the primary energy factor <sup>g</sup> 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.

# MANAGEMENT SUMMARY

## Austrian residential real estate portfolio – Impact Reporting





### Austrian Green Bond Portfolio:

Buildings:	12.432
Exposure:	2.411.928.510 EUR
Final Energy savings:	311.811 MWh/year
Primary Energy savings:	401.613 MWh/year
Carbon emissions savings:	40.224 tCO <sub>2</sub> /year

# MANAGEMENT SUMMARY



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

Economic activity	Screening criteria	 Single-Family houses <sup>1</sup>	 Multi-Family houses <sup>2</sup>		
7.1 Construction of new buildings	<b>Nearly Zero-Energy Building</b> Primary energy demand <sup>3</sup> 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.			
	<b>Indicative reference values</b> <b>PEC<sup>4</sup> minus 10%:</b> NZEB -10%	Residential Buildings general: PEC ≤ 45 kWh/(m²a)   Ground Floor: PEC ≤ 27 kWh/(m²a)			
7.2 Renovation of existing buildings	<b>Major Renovation</b> Cost-optimal level <sup>6</sup>	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/(m²a)			
	<b>Property Upgrade</b> 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 <sup>6</sup>	<b>Energy Performance Certificate</b> EPC at least class A <sup>5</sup>	Energy performance class A or better			
		SFH & MFH	Until 31.12.2020		Since 01.01.2021
			Energy-Index	Primary energy demand in kWh/(m²a)	Primary energy use in kWh/(m²a)
		A++++ ≤	-	-	0
		A+++ ≤	-	-	50
		A++ ≤	-	-	75
		A+ ≤	-	-	105
		A ≤	1,05	96,8	160

<sup>1</sup>SFH: Single-Family house with 1-2 units | <sup>2</sup>MFH: Multi-Family house with >2 units | <sup>3</sup>Primary energy demand = Primärenergiebedarf | <sup>4</sup>Primary energy use = Primary energy consumption (PEC) = Primärenergieverbrauch | <sup>5</sup> 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. | <sup>6</sup>The 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

## EU Taxonomy eligibility criteria – 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 <sup>1</sup> in kWh/(m²a)	Primary energy use <sup>2</sup> in kWh/(m²a)
		A++++ ≤	-	-	0
		A+++ ≤	-	-	50
		A++ ≤	-	-	75
		A+ ≤	1,05	96,8	105
		Primary energy use: ≤ 39 kWh/(m²a) Primary energy use of Bouwbesluit 2006 or better Final energy demand <sup>3</sup> : ≤ 72 kWh/(m²a)		Primary energy use: ≤ 42 kWh/(m²a) Primary energy use of Bouwbesluit 2015 or better Final energy demand: ≤ 61 kWh/(m²a)	

<sup>1</sup> Primary energy demand = Primärenergiebedarf | <sup>2</sup> Primary energy use = Primary energy consumption (PEC) = Primärenergieverbrauch | <sup>3</sup> Final energy demand = Endenergiebedarf | <sup>4</sup> 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

## Energy & CO<sub>2</sub>-benchmarks – residential assets in the Netherlands

					Ø-Reference values: CO <sub>2</sub> -equivalent	
Ø-Reference values: Energy						
Building stock weighted reference benchmarks:  <b>End energy:</b> Ø 96.7 kWh/m <sup>2</sup> a  <b>Primary energy factor:</b> Ø 1.05  <b>Primary energy:</b> Ø 101.6 kWh/m <sup>2</sup> 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 <sub>2</sub> -Intensity: Ø 0.234 kgCO <sub>2</sub> /kWh	Building stock weighted reference benchmark: 22.6 kgCO <sub>2</sub> /m <sup>2</sup> 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		

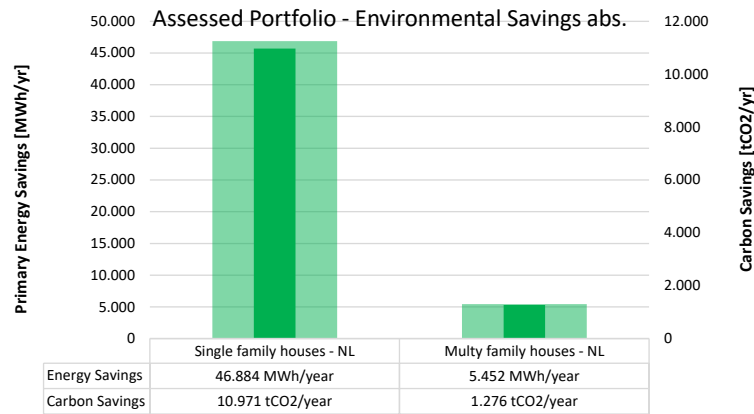
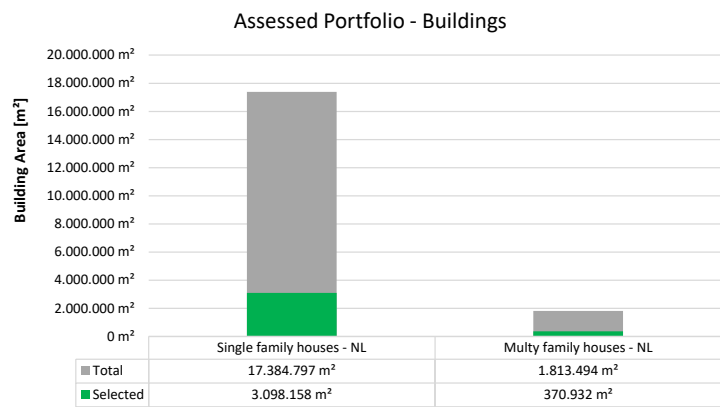
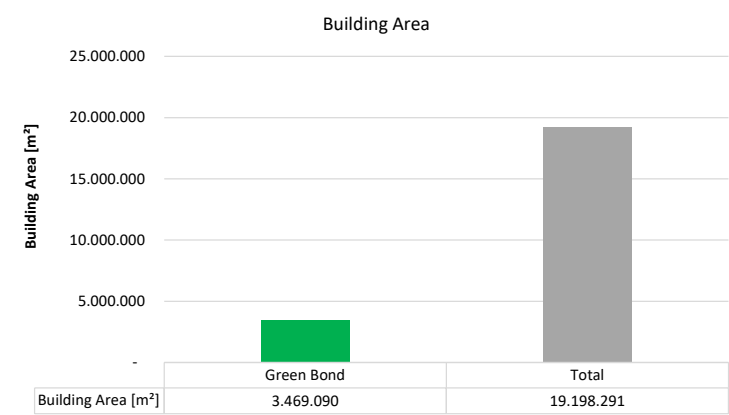
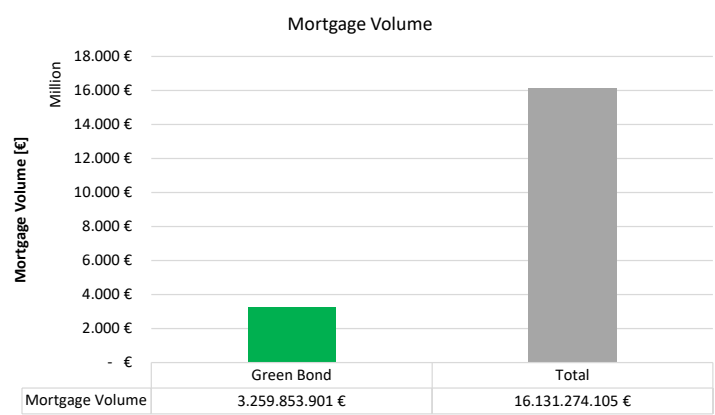
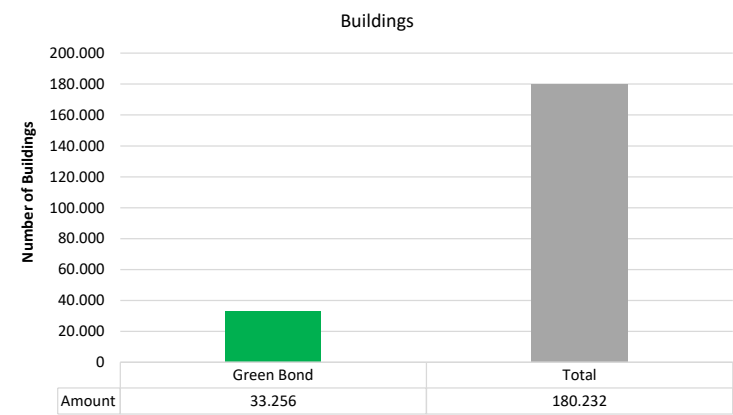
# MANAGEMENT SUMMARY

## Dutch residential real estate portfolio – Impact Reporting

Low Carbon Buildings	Year of Issuance	Type	Signed Amount <sup>a</sup>	Share of Total Portfolio Financing <sup>b</sup>	Eligibility for green bonds <sup>c</sup>	Average portfolio lifetime <sup>d</sup>	Annual final energy savings <sup>e</sup>	Annual CO2 emissions avoidance <sup>f</sup>
<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	3.259.853.901	100,0	100	29,7	52.335	12.246
Single family houses - NL	2024	Low Carbon Building	2.805.812.763	86,1	100	29,8	46.884	10.971
Multy family houses - NL	2024	Low Carbon Building	454.041.138	13,9	100	29,2	5.452	1.276
<sup>a</sup> Legally committed signed amount by the issuer for the porfolio or portfolio components eligible for green bond financing. <sup>b</sup> Portion of the total portfolio cost that is financed by the issuer. <sup>c</sup> Portion of the total portfolio cost that is eligible for Green Bond. <sup>d</sup> average remaining term of Green Bond loan within the total portfolio. <sup>e</sup> Final energy savings calculated using the difference between the top 15% and the national building stock benchmarks <sup>f</sup> Greenhouse gas emissions avoidance determined by multiplying the final energy savings with the carbon emissions intensity								

# MANAGEMENT SUMMARY

## Dutch residential real estate portfolio – Impact Reporting





### Dutch Green Bond Portfolio:

- Buildings: 33.256
- Exposure: 3.259.853.901 EUR
- Energy savings: 52.335 MWh/year
- Carbon emissions savings: 12.246 tCO<sub>2</sub>/year

# MANAGEMENT SUMMARY


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

Economic activity	Screening criteria	 Single-Family houses <sup>1</sup>	 Multi-Family houses <sup>2</sup>
7.1 Construction of new buildings	Nearly Zero-Energy Building Primary energy demand <sup>3</sup> 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	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 <sup>7</sup> 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 ≥ 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 <sup>4</sup> : A+ ≤ 30   A ≤ 50 kWh/(m²a)	
	top 15% of the national existing building stock <sup>5</sup>	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+, A or B with a final energy demand: A+ ≤ 30   A ≤ 50   B* ≤ 69 kWh/(m²a) <sup>8</sup>
		Primary energy consumption <sup>9</sup> : ≤ 69 kWh/(m²a) Primary energy demand: EnEV 2009 or better Final metered energy use <sup>6</sup> : ≤ 70 kWh/(m²a) Carbon intensity CO <sub>2</sub> : ≤ 16 kgCO <sub>2</sub> /m²a	

<sup>1</sup>SFH: Single-Family house with 1-2 units | <sup>2</sup>MFH: Multi-Family house with >2 units | <sup>3</sup>Primary energy consumption = Primärenergiebedarf | <sup>4</sup>Final energy demand = Endenergiebedarf | <sup>5</sup>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. | <sup>6</sup>Final metered energy use = gemessener Endenergieverbrauch, value refers to the final energy for heat in relation to the underlying balance limit of the demand certificate | <sup>7</sup>The 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. | <sup>8</sup>B\* 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. | <sup>9</sup>Primary energy consumption = gemessener Primärenergieverbrauch, value refers to the primary energy for heat in relation to the underlying balance limit of the demand certificate

# MANAGEMENT SUMMARY

## Energy & CO<sub>2</sub>-Benchmarks – residential assets in Germany

	Residential		Residential buildings
National reference building stock		Unit	
Final energy	Building stock weighted reference benchmark: final energy consumption	kWh/m <sup>2</sup> a	Heating: 133 Electricity: 28 Total: 161
CO <sub>2</sub> -Emissions	Building stock weighted reference benchmark: CO <sub>2</sub> -emissions	kgCO <sub>2</sub> /m <sup>2</sup> a	Heating: 30 Electricity: 11 Total: 41
	National energy carrier distribution-weighted: CO <sub>2</sub> -equivalent intensity	gCO <sub>2</sub> /kWh	Heating: 229 Electricity: 380 Ref.: 255
Primary energy	Building stock weighted reference benchmark: primary energy consumption	kWh/m <sup>2</sup> a	Heating: 132 Electricity: 50 Ref.: 182
	National energy carrier distribution-weighted: primary energy factor	–	Heating: 0,99 Electricity: 1,80 Ref.: 1,13

*Drees & Sommer benchmarks for assets located in Germany. Status: February 2025. Operational carbon emissions cover scope 1 and scope 2 emissions, according to national scope.*

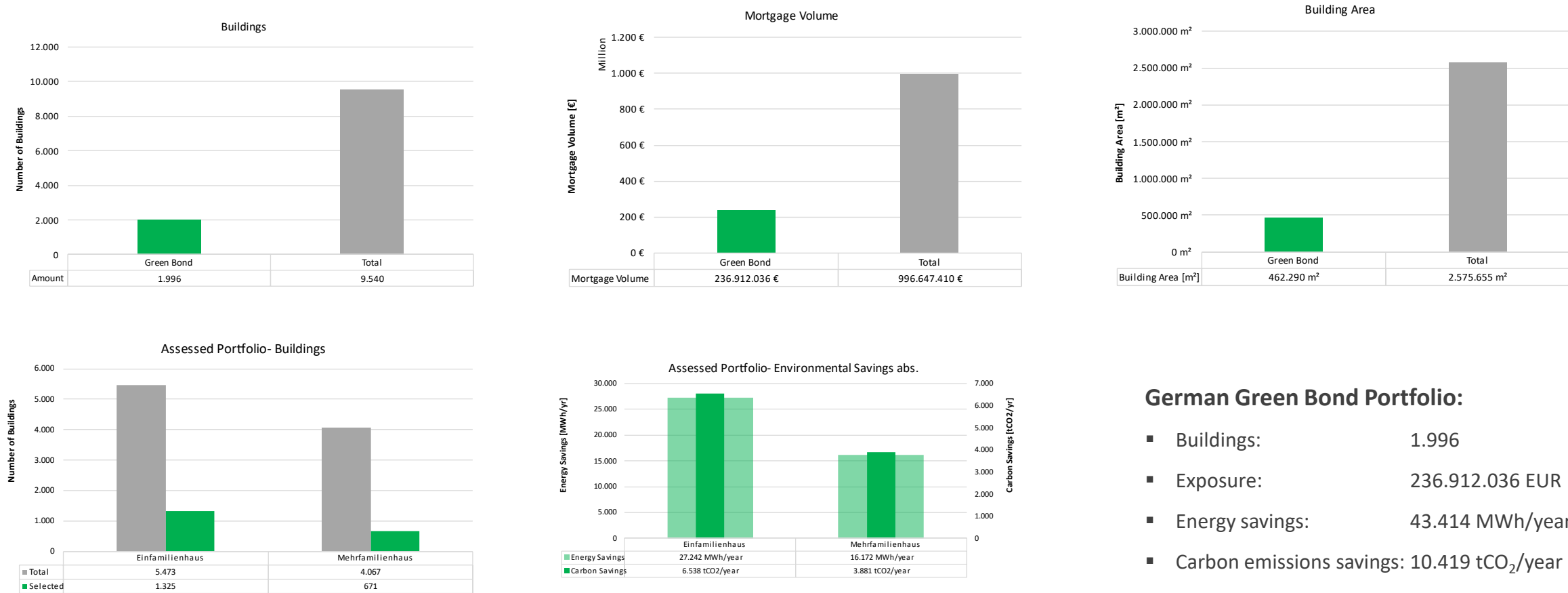
# GREEN BOND IMPACT REPORT BAWAG GROUP

## German residential real estate portfolio – Impact Reporting

Low Carbon Buildings	Year of Issuance	Type	Signed Amount <sup>a</sup>	Share of Total Portfolio Financing <sup>b</sup>	Eligibility for green bonds <sup>c</sup>	Annual final energy savings <sup>e</sup>	Annual CO2 emissions avoidance <sup>f</sup>
<i>Unit</i>	<i>[yyyy]</i>	<i>[-]</i>	<i>[EUR]</i>	<i>[%]</i>	<i>[%]</i>	<i>[MWh/year]</i>	<i>[tCO2/year]</i>
BAWAG Group	2024	Low Carbon Building	236.912.036	100	100	43.414	10.419
Einfamilienhaus	2024	Low Carbon Building	163.582.736	69,0	100	27.242	6.538
Mehrfamilienhaus	2024	Low Carbon Building	73.329.300	31,0	100	16.172	3.881
<sup>a</sup> Legally committed signed amount by the issuer for the portfolio or portfolio components eligible for green bond financing. <sup>b</sup> Portion of the total portfolio cost that is financed by the issuer. <sup>c</sup> Portion of the total portfolio cost that is eligible for Green Bond. <sup>d</sup> average remaining term of Green Bond loan within the total portfolio. <sup>e</sup> Final energy savings calculated using the difference between the top 15% and the national building stock benchmarks <sup>f</sup> Greenhouse gas emissions avoidance determined by multiplying the final energy savings with the carbon emissions intensity							

# GREEN BOND IMPACT REPORT BAWAG GROUP

## German residential real estate portfolio – Impact Reporting



- German Green Bond Portfolio:**
- Buildings: 1.996
  - Exposure: 236.912.036 EUR
  - Energy savings: 43.414 MWh/year
  - Carbon emissions savings: 10.419 tCO<sub>2</sub>/year



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



**DREES &  
SOMMER**