

*Green Bond Report*  
*2021*

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## 1. Swiss Life Green Bond Framework

In 2019, Swiss Life developed a Green Bond Framework in line with the Green Bond Principles as published by ICMA in June 2018. The Swiss Life Green Bond Framework (the “Framework”) has been reviewed by Sustainalytics<sup>1</sup>, who have confirmed in a Second Party Opinion that the framework is “credible and impactful” and aligns with the four components of the ICMA Green Bond Principles 2018.<sup>2</sup>

In accordance with the Framework, an amount equal to the net proceeds of any Swiss Life Green Bond issuance will be used to finance and/or refinance Eligible Green Assets. Swiss Life considers assets or investments in real estate assets as eligible if they fulfil any of the following criteria:

<b>Building certification</b>	<b>Certification level</b>
Minergie	Minergie, Minergie-P, Minergie-A, Minergie ECO
LEED	Gold or better
BREEAM	Excellent or better
HQE	Excellent or better
<b>Other criteria</b>	
Energy class label <sup>3</sup>	B or better
Share of renewable energy <sup>4</sup>	50% or more
<b>For reconstruction, renovations, refurbishments</b>	
Investments leading to one of the building certifications listed above	
Investments leading to energy class label ‘B’ or better	
Investments explicitly targeting a reduction of greenhouse gas emissions of at least 30%	

<sup>1</sup> <https://www.swisslife.com/en/home/investors/bonds-and-ratings.html>

<sup>2</sup> Use of proceeds, project evaluation/selection, management of proceeds and reporting; The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

<sup>3</sup> Swiss Life internal classification based on the Swiss standard SIA 2031:2016. Energy class label ‘A’ corresponds to ≤ 42 kWh/m<sup>2</sup> energy reference area; ‘B’ corresponds to 60-42 kWh/m<sup>2</sup> energy reference area

<sup>4</sup> As supplied to the building

## 2. Allocation report as of 30.09.2021

On 6 December 2019, Swiss Life issued multi-tranche senior green bonds for a total nominal amount of CHF 600 million.

Bonds	ISIN	Issue date	Maturity date	Nominal amount	Net proceeds at issuance <sup>5</sup>
A Bonds	CH0461238914	06.12.2019	06.03.2029	CHF 150 m	CHF 150 m
B Bonds	CH0461238906	06.12.2019	06.06.2025	CHF 250 m	CHF 249 m
C Bonds	CH0419045809	06.12.2019	06.12.2021	CHF 200 m	CHF 201 m
<b>Total net proceeds outstanding</b>				<b>CHF 600 m</b>	<b>CHF 600 m</b>

In accordance with the Framework, the Green Bond Committee has selected the following pool of assets meeting the eligibility criteria:

### *Allocated assets as of 30.09.2021*

As of 30.09.2021, CHF 464 million of the outstanding net proceeds of the green bonds listed above have been allocated to eligible Green Assets.

Property	Project type	Total investment (in CHF m)	Building certification	Period of investment	Allocation to Eligible Green Assets (in CHF m)
Zurich, Green City, Maneggplatz 40, 44, 48	Development Residential	35.1	Minergie-P-ECO	2018 (refinancing)	35.1
Zurich, Green City, Maneggplatz 14, 16; Tuchmacherstr. 34, 36, 40, 42	Development Residential	96.0	Minergie-P-ECO	2018 (refinancing)	96.0
Zumikon, Ankenbüel 1-26	Development Residential	116.4	Minergie	2018 (refinancing)	116.4
Zurich, Baslerstrasse 71, 73, 75, 77	Development Residential	88.5	Minergie-P-ECO	01.01.2020 - 30.09.2021	43.0
Schaffhausen, Zur Stahlgiesserei 3-6	Development Residential	73.1	Minergie	01.01.2020 - 30.09.2021	73.1
Regensdorf, Riedthofstrasse 54-92	Development Residential	52.2	Minergie / Minergie-ECO	01.01.2020 - 30.09.2021	29.5
Massagno, via Lepori 14-18	Development Residential	94.5	Minergie-P-ECO	01.01.2020 - 30.09.2021	6.4
Zurich, Buckhauserstrasse	Development Residential	48.2	Minergie	01.01.2020 - 30.09.2021	25.5
Lausanne, Av. du Grey 16-24	Renovation Residential	43.2	Minergie	01.01.2020 - 30.09.2021	24.2
Chêne-Bougeries, Chemin de la Montagne 124-134	Renovation Residential	34.0	Minergie	01.01.2020 - 30.09.2021	14.9
<b>Proceeds allocated at 30.09.2021</b>					<b>464.1</b>
Unallocated proceeds					135.9
<b>Total original net proceeds outstanding</b>					<b>600.0</b>

<sup>5</sup> After deduction of commissions, fees and expenses.

### 3. Impact report as of 30.09.2021

With the impact report, Swiss Life intends to estimate the environmental benefits of investments in Eligible Green Assets. For green buildings, the presented data is based on estimates of greenhouse gas (GHG) emissions, expressed in kg of CO<sub>2</sub> per square meter of *allocated* energy reference area (sqm ERA) per year (excluding tenants' electricity). All presented CO<sub>2</sub> emissions are in kg CO<sub>2</sub> equivalents. Emission factors have been applied which comply with the methodological principles of the GHG Protocol. Allocated ERA was calculated by multiplying the total ERA of a building with the proportion of total investment that was allocated to the green bonds.

Property	Total investment	Allocated investment	Total ERA	Allocated ERA
	CHF m	CHF m	sqm	sqm
Zurich, Green City, Maneggplatz 40, 44, 48	35.1	35.1	6'690	6'690
Zurich, Green City, Maneggplatz 14, 16; Tuchmacherstr. 34, 36, 40, 42	96.0	96.0	13'489	13'489
Zumikon, Ankenbüel 1-26	116.4	116.4	18'336	18'336
Zurich, Baslerstrasse 71, 73, 75, 77	88.5	43.0	19'385	9'419
Schaffhausen, Zur Stahlgiesserei 3-6	73.1	73.1	14'979	14'979
Regensdorf, Riedthofstrasse 54-92	52.2	29.5	13'060	7'370
Massagno, via Lepori 14-18	94.5	6.4	14'966	1'015
Zurich, Buckhauserstrasse	48.2	25.5	12'916	6'833
<b>Total acquisitions/developments</b>				<b>78'131</b>
Lausanne, Av. du Grey 16-24	43.2	24.2	9'352	5'235
Chêne-Bougeries, Chemin de la Montagne 124-134	34.0	14.9	12'747	5'596
<b>Total renovations/refurbishments</b>				<b>10'830</b>

#### *Acquisitions and developments: GHG emissions<sup>6</sup> avoided*

Property	Yearly GHG emissions of the object	Yearly GHG emissions of benchmark	Yearly GHG emissions avoided
	kg CO <sub>2</sub> / allocated sqm ERA / year		
Zurich, Green City, Maneggplatz 40, 44, 48	5.8	23.6	-17.8
Zurich, Green City, Maneggplatz 14, 16; Tuchmacherstr. 34, 36, 40, 42	3.5	23.6	-20.1
Zumikon, Ankenbüel 1-26	6.5	23.6	-17.1
Zurich, Baslerstrasse 71, 73, 75, 77	3.5	23.6	-20.1
Schaffhausen, Zur Stahlgiesserei 3-6	3.5	23.6	-20.1
Regensdorf, Riedthofstrasse 54-92	3.5	23.6	-20.1
Massagno, via Lepori 14-18	6.4	23.6	-17.2
Zurich, Buckhauserstrasse	3.5	23.6	-20.1
<b>Weighted average</b>			<b>-19.2</b>

Investments in green buildings allocated to the bonds allow to avoid GHG emissions in the approximate amount of **19.2** kg CO<sub>2</sub> per sqm ERA per year, as compared to benchmark assets<sup>7</sup>.

<sup>6</sup> Excluding tenants' electricity. All presented CO<sub>2</sub> emissions are in kg CO<sub>2</sub> equivalents. Emission factors have been applied which comply with the methodological principles of the GHG Protocol

<sup>7</sup> Benchmark source: pom+, period 2017-2019 (see further details below)

*Renovations and refurbishments: Reduction of GHG emissions<sup>6</sup>*

Property	GHG emissions after renovation	GHG emissions before renovation	Reduction of GHG emissions	
	kg CO <sub>2</sub> / allocated sqm ERA / year			
Lausanne, Av. du Grey 16-24	7.4	15.6	-8.3	-53%
Chêne-Bougeries, Chemin de la Montagne	13.8	32.5	-18.6	-57%
<b>Weighted average</b>			<b>-13.6</b>	

The impact of renovations and/or refurbishments led to reduction of GHG emissions in the approximate amount of **13.6** kg CO<sub>2</sub> per sqm ERA per year, as compared with emissions before renovation.

The categories acquisitions/developments and renovations/refurbishments combined achieve a GHG avoidance (or reduction) of approximately **18.5** kg CO<sub>2</sub> per sqm ERA per year. Since issuance of the bond on 6.12.2019 until the reporting date 30.09.2021, estimated GHG emissions avoided add up to around **2'922** tons CO<sub>2</sub>. This represents GHG savings of **6.3** tons CO<sub>2</sub> per million invested (allocated) Swiss Francs.

*Methodology*

Estimation of GHG emissions of objects in the portfolio

The amount of yearly GHG emissions (measured in kg CO<sub>2</sub> per sqm ERA per year and excluding tenants' electricity) was derived from the most recent annual cost bill of the respective asset, when available. For assets for which a cost bill was not yet available, adjusted object plan data was used to estimate GHG emissions. To ensure sufficient reliability, plan data was adjusted by applying 20% additional emissions.

Estimation of GHG emission avoidance/reduction

GHG emission savings following acquisitions and developments were calculated by comparing yearly GHG emissions of each object to a relevant benchmark (see below).

GHG emission savings following renovations/refurbishments were calculated by comparing yearly GHG emissions of each object before renovation (annual cost bill) and after renovation (annual cost bill or adjusted plan data).

Total GHG emission avoidance/reduction since issuance was calculated *pro rata temporis* for each object, depending on the allocation date.

Object type	Assumed allocation date	Estimation source
Zurich, Green City, Maneggplatz 40, 44, 48	06.12.2019	Annual cost bill
Zurich, Green City, Maneggplatz 14, 16; Tuchmacherstr. 34, 36, 40, 42	06.12.2019	Adjusted plan data
Zumikon, Ankenbüel 1-26	06.12.2019	Annual cost bill
Zurich, Baslerstrasse 71, 73, 75, 77	01.01.2020	Adjusted plan data
Schaffhausen, Zur Stahlgiesserei 3-6	01.01.2020	Adjusted plan data
Regensdorf, Riedthofstrasse 54-92	01.01.2020	Adjusted plan data
Massagno, via Lepori 14-18	01.01.2020	Adjusted plan data
Zurich, Buckhauserstrasse	01.01.2020	Adjusted plan data
Lausanne, Av. du Grey 16-24	01.01.2020	Adjusted plan data
Chêne-Bougeries, Chemin de la Montagne 124-134	01.01.2020	Adjusted plan data

### Benchmark for acquisitions and developments

Swiss Life mandated the consulting company pom+ Consulting AG in 2020 to elaborate appropriate benchmarks to compare with objects allocated to the green bonds. Benchmarks were elaborated separately for the main categories residential, commercial and mixed and all only contain Swiss real estate objects.

Object type	Period considered	Number of objects
Residential	2017 - 2019	2'150
Commercial	2017 - 2019	541
Mixed	2017 - 2019	492

According to Swiss law (Ordinance on Collective Investment Schemes <sup>8</sup>) following inclusion criteria are relevant to distinguish between the three categories:

- Residential: At least 80% of income from residential element
- Commercial: At least 60% of income from commercial element
- Mixed: Between 20-60% of income from commercial element

<sup>8</sup> Art. 86, para. 2: <https://www.admin.ch/opc/en/classified-compilation/20062920/index.html>

## 4. Selected assets



Object	Green City, Maneggplatz 40/44/48, 8041 Zurich
Construction year	2018
Label	Minergie-P-ECO



Object	Ankenbüel 1-26, 8126 Zumikon
Construction year	2018
Label	Minergie



Object	Baslerstrasse 71, Zurich
Construction year	2019-2022
Label	Minergie-P-ECO



Object	Buckhauserstrasse, Zurich
Construction year	2020-2022
Label	Minergie





Object	Zur Stahlgießerei 3-6, Schaffhausen
Construction year	2020-2021
Label	Minergie



Object	Riedthofstrasse 54-92, Regensdorf
Construction year	2020-2022
Label	Minergie Standard / Minergie-ECO



Object	Av. du Grey 16-24, Lausanne
Construction year	2019-2022
Label	Minergie



Object	Chemin de la Montagne 124-134, Chêne Bougeries
Construction year	2020-2022
Label	Minergie Standard / Minergie-ECO



Object	Via Lepori 14-18, Massagno
Construction year	2017-2020
Label	Minergie-P-Eco