

# **Green Bonds**

## **Asset Selection Methodology**

**June 2023**

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## DOCUMENT CONTROL

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# 1. INTRODUCTION

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Crelan has established a Green Bond Framework (“GBF”) as an overarching platform under which it can issue Green Bonds to finance and/or refinance green loans with a positive impact on the environment. The Green Bond Framework is fully complementary with Crelan’s sustainability strategy and aims to support the transition to a low carbon economy.

The Green Bond Framework has been developed in alignment with the International Capital Markets Association (“ICMA”) Green Bond Principles, 2021 (“GBP”)<sup>1</sup>, which are voluntary guidelines outlining best practices when issuing Green Bond Instruments. Crelan closely monitors new regulatory developments related to Green Bonds and will update the Green Bond Framework when deemed necessary.

One of the key elements in the Green Bond Framework is the selection of appropriate eligible Green Projects to be financed by the Green Bonds. The following sections set out which criteria Crelan Group applies in the selection of these Green Assets, aligned with the Use of Proceeds parts of the Green Bond Framework.

# 2. GREEN ASSET CRITERIA

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As a significant part of greenhouse gas emissions stems from the housing and transportation of households, banks play an essential role in the reduction of these emissions by providing funding to households. These loans will encourage the acquisition of low-energy buildings, and will allow them to buy less polluting vehicles.

Therefore, Crelan will use the net proceeds of the Green Bonds to finance or refinance, new or existing loans within the following 2 eligible categories:

- Green Housing
- Clean Transportation

It should be noted that the current version of the Green Bond Framework does not include a category related to sustainable agriculture. Crelan will first focus on defining criteria for sustainable agriculture and ensuring that it has all relevant data in place. In a future update of the Framework, Crelan may include a category related to sustainable agriculture.

The following subsections within this chapter set out the criteria for loans to qualify as Green Housing (Section 2.1) or Clean Transportation (Section 2.2).

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<sup>1</sup> Green Bond Principles, ICMA: [https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/Green-Bond-Principles\\_June-2022-280622.pdf](https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/Green-Bond-Principles_June-2022-280622.pdf)

## 2.1. GREEN BUILDINGS

The table below sets out the criteria for eligible Green Housing:



Loan type	Green Criteria	Environmental Objective	SDG Alignment
Mortgage loans	<p><u>Loans meeting one of the following criteria:</u></p> <ul style="list-style-type: none"> <li>Loans for buildings with EPC label <math>\geq</math> “A” or belonging to the top 15% of the national stock or regional building stock expressed as operational Primary Energy Demand (PED) and demonstrated by adequate evidence</li> <li>Loans for buildings with energy performance of at least 10% lower than the local threshold set for nearly zero building (NZEB) requirements</li> </ul>	Climate change mitigation	
Renovation loans	<p>Renovation loans which are used 100% for green renovations (boiler replacement, boiler installed on solar energy, solar panels, installation heat pump, installation of geothermal energy production equipment, double window glazing, roof/wall/floor insulation, installation of thermostatic valves, thermostatic switches, energy audit) and for which the renovation leads to an energy improvement of at least 30%.</p>	Climate change mitigation	

Table 1 – Green Housing Criteria

## 2.2. CLEAN TRANSPORTATION

The following table sets out the criteria for Clean Transportation:


Loan type	Green Criteria	Environmental Objective	SDG Alignment
Car loans	<p><u>Loans financing the acquisition of the following types of vehicles:</u></p> <ul style="list-style-type: none"> <li>Fully electric vehicles</li> <li>Hybrid vehicles for which the associated tailpipe has been demonstrated by adequate evidence and range below 50gCO<sub>2</sub>eq/km.</li> </ul>	Climate change mitigation	

Table 2 – Clean Transportation Criteria

### 3. DEEP DIVE TOP 15% ENERGY EFFICIENT BUILDINGS

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As set out in Section 2.1, Crelan has defined several criteria for the selection of eligible loans under the Green Bond Framework. Under the Green Housing category, one of the applied criteria is the following:

*“Loans for buildings belonging to the top 15% of the national stock or regional building stock expressed as operational Primary Energy Demand (PED) and demonstrated by adequate evidence”*

To determine the top 15% of sustainable regional building stock, Crelan has developed a methodology which takes into account the European and regional regulation on energy performance, as well as publicly available data on building stock and energy consumption.

In 2002, the EU adopted a directive on the energy performance of buildings (2002/91/EC) with the aim to improve the energy efficiency of buildings in the European Union. It requires member states to establish minimum energy performance requirements for new and existing buildings, and to ensure that buildings are regularly inspected and certified for energy efficiency. The directive also promotes the use of energy-efficient heating and cooling systems, as well as renewable energy sources in buildings. In Belgium, energy performance of buildings is a regional power, resulting in differences in the implementation of the regulation between the Flemish, Walloon and Brussels region.

The next three subsections describe the methodology to determine which residential dwellings within the regions of Flanders, Wallonia and Brussels fall within the top 15% of sustainable regional building stock and for which the corresponding mortgages can thus be considered as eligible assets under the Green Bond Framework.

It should be noted that this methodology was determined in the first half of 2023 based on information available at that time. Crelan intends to regularly review this methodology in the Green Bond Committee<sup>2</sup> and adjust the definition of the top 15% most energy-efficient buildings when deemed necessary.

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<sup>2</sup> See Crelan’s Green Bond Framework part 3.2 for more info on the Green Bond Committee

## Executive Summary

Regions	Flanders	Wallonia	Brussels
<b>Eligibility Criteria</b>	Based on the definition of the top 15% of the regional building stock the following loans are considered eligible under the Green Bond Framework:		
	Loans for residential buildings with <b>EPC A</b>	Loans for residential buildings with <b>EPC A or B</b>	Loans for residential buildings with <b>EPC A or B</b>
	Loans granted for new constructions with first loan drawing as from <b>2017</b>	Loans granted for new constructions with first loan drawing as from <b>2014</b>	Loans granted for new constructions with first loan drawing as from <b>2018</b>

### 3.1. FLANDERS

#### EPC labels

In 2006, Flanders introduced Energy Performance Certificates (EPC) which indicate the energy efficiency of a dwelling expressed as kilowatt-hours per square meter per year (kWh/m<sup>2</sup>/year). As of 2019, the energy efficiency performance is assigned to a label, ranging from A+ (most energy efficient) to F (least energy efficient). The table below shows the EPC labels for residential dwellings and their corresponding energy performance, expressed in kWh/m<sup>2</sup>/year.

EPC label	kWh/m <sup>2</sup> /year
A+	≤ 0
A	0 – 100
B	100 – 200
C	200 – 300
D	300 – 400
E	400 – 500
F	> 500

*Table 3 – EPC scores and corresponding primary energy demand in Flanders<sup>3</sup>*

If we look at the current distribution of registered EPC certificates of residential buildings in Flanders (see [Table 4](#), we can see that dwellings with EPC label A represent 2.5% of all buildings with a registered EPC certificate and thus fall well within the top 15% of the sustainable regional building stock. However, if we were to add dwellings with EPC label B as well, we would exceed the 15% threshold.

<sup>3</sup> <https://apps.energiesparen.be/test-uw-epc>

Energy label	Apartment	Collective residential building	Single-family home	Percentage
≥ A	19,034	135	5,173	2.5%
B	157,559	872	78,384	24.2%
C	110,565	1,201	120,647	23.7%
D	52,059	840	103,304	15.9%
E	25,659	470	81,725	11.0%
F	34,938	611	186,728	22.7%
<b>Total</b>	<b>399,814</b>	<b>4,129</b>	<b>575,961</b>	<b>100%</b>

Table 4 – distribution of residential energy performance certificates in Flanders (Feb 2023)<sup>4</sup>

It is important to note that the overview above only includes the 980 thousand dwellings in Flanders with a registered EPC score, which corresponds to around 30% of the total building stock in Flanders<sup>5</sup>. As recent regulation mandates newly constructed buildings or significantly renovated buildings to apply for an EPC label, we can assume that buildings without an EPC are on average less energy efficient than buildings with an EPC. **Therefore, we can conclude that residential dwellings with an EPC label A will fall within the top 15% of most energy efficient buildings in Flanders.**

### Requirements on new and significantly renovated housing

In addition to EPC certificates, Flanders introduced the EBP-regulation (“Energieprestatie en Binnenklimaat”) in 2006 which sets requirements on energy performance and indoor climate for new and significantly renovated dwellings in Flanders. The energy performance requirements that buildings must meet, are expressed in a dimensionless E-level and depend on the building’s use (residential vs commercial), the type of construction (new dwellings vs significant renovations) and the introduction year of the building permit. For new residential dwellings in Flanders, the maximum allowed E-level is dependent on the application year of the urban planning permit, with maximum levels decreasing over time. New constructions are therefore becoming increasingly energy efficient.

The evolution of the maximum allowed E-levels for residential housing in Flanders is presented below in [Table 5](#).

Year of building permit	Maximum allowed E-level
From 2006 to the end of 2009	E100
From 2010 to the end of 2011	E80
From 2012 to the end of 2013	E70
From 2014 to the end of 2015	E60
From 2016 to the end of 2017	E50
From 2018 to the end of 2019	E40
In 2020	E35
As of 2021	E30

<sup>4</sup> <https://apps.energiesparen.be/energiekaart/vlaanderen/EPC-label-verdeling>

<sup>5</sup> Source: Statbel

Table 5 - Maximum allowed E-level for new residential constructions in Flanders<sup>6</sup>

An E-level score of E60 can be considered equivalent to a primary consumption of 100 kWh/m<sup>2</sup>/year<sup>7</sup>, which is the maximum value for an EPC score A in Flanders, see [Table 3](#). Based on this additional information, new constructions where the building permit was submitted in 2014 or later can therefore be considered as equivalent to EPC label A or higher. As described above, we assume that buildings with EPC label A will fall within the top 15 of regional building stock, which means that buildings constructed under the building regulation in force as from 2014, could also be considered as part of the top 15%. Considering that time can pass between when a building permit is granted, and the actual first drawing of the loan, a conservative time lag of 3 years is taken into account.

#### Conclusion for Flanders:

- Based on the definition of the top 15% of building stock in Flanders, the following loans are considered eligible under the Green Bond Framework:
- Loans for residential buildings with EPC A
  - Loans granted for new constructions with first loan drawing as from 2017

## 3.2. WALLONIA

To determine the top 15% of sustainable building stock in Wallonia, we apply a similar approach as for Flanders.

### EPC labels

To indicate the energy performance of buildings, Wallonia introduced EPC certificates, which are referred to as 'Certificats de Performance Énergétique des Bâtiments' (PEB certificates). The table below shows the EPC labels and their corresponding energy performance, expressed in kWh/m<sup>2</sup>/year.

EPC label (PEB)	Espec (kWh/m <sup>2</sup> /year)
A+	0 – 45
A	45 – 85
B	85 – 170
C	170 – 255
D	255 – 340
E	340 – 425
F	425 - 510
G	> 510

<sup>6</sup> <https://www.vlaanderen.be/e-peil>

<sup>7</sup> <https://www.vlaanderen.be/epb-pedia/overzicht-van-epb-wijzigingen-per-jaar/epb-wijzigingen-vanaf-2020/epc-bouw-met-energielabel>

Table 6 - EPC scores and corresponding primary energy demand in Wallonia

[Table 7](#) presents the distribution of registered EPC certificates of residential buildings in Wallonia and shows that EPC levels B and above represent 10.7% of all buildings with a registered EPC certificate and thus fall within the top 15% of most energy efficient residential buildings in Wallonia.

EPC Label	Number of certificates	Percentage
≥ A	5,968	1.0%
B	57,979	9.7%
C	87,178	14.6%
D	95,910	16.1%
E	94,819	15.9%
F	85,237	14.3%
G	168,966	28.3%
<b>Total</b>	<b>596,057</b>	<b>100%</b>

Table 7 - distribution of residential energy performance certificates in Wallonia (2020)<sup>8</sup>

Similarly as for Flanders, it is important to acknowledge that only buildings having a registered EPC are included in the overview above, covering around 35% of the total building stock in Wallonia<sup>9</sup>. As recent regulation mandates newly constructed buildings or significantly renovated buildings to apply for an EPC label, we can assume that buildings without an EPC are on average less energy efficient than buildings with an EPC. **Therefore, we can conclude that residential buildings with an EPC label A and B will fall within the top 15% of most energy efficient buildings in Wallonia.**

### Requirements on new and significantly renovated housing

Besides EPC certificates on existing buildings, Wallonia has also introduced requirements on the energy performance for new and significantly renovated buildings in Wallonia, which is set out in the PEB regulation (Performance Energétique des Bâtiments). The PEB regulation sets a maximum on the Ew-level, expressing the maximum energy performance and on the Espec level, expressing the maximum energy consumption in kWh/m<sup>2</sup>/year. [Table 8](#) shows the evolution of the maximum allowed Ew and Espec levels decreasing over time:

Year of building permit	Maximum Ew	Maximum Espec (kWh/m <sup>2</sup> /year)
From 05/2010 to 08/2011	100	170
From 09/2011 to 12/2016	80	130
From 01/2017 to 12/2020	65	115
As of 01/2021	45	85

Table 8 Maximum allowed Espec level for residential housing in Flanders<sup>10</sup>

<sup>8</sup> [https://cehd.be/media/1307/rapport-peb-2021\\_version-finale.pdf](https://cehd.be/media/1307/rapport-peb-2021_version-finale.pdf)

<sup>9</sup> Source: Statbel

<sup>10</sup> <https://energie.wallonie.be/fr/reglementation-wallonne-sur-la-peb.html?IDC=7224>

As the EPC label A in Wallonia ranges from 45 to 85 kWh/m<sup>2</sup>/year, and EPC label B ranges from 85 to 170 kWh/m<sup>2</sup>/year (see [Table 6](#)), we can deduce the following based on the information in [Table 8](#):

- New constructions for which the building permit was introduced as from 2011 can be considered as equivalent to EPC B or above.
- New constructions for which the building permit was introduced as from 2021 can be considered as equivalent to EPC A or above.

As both EPC labels A and B belong to the top 15% in Wallonia, this means that buildings constructed under the building regulation in force as from 2011, would be considered as part of the top 15% of regional building stock. Considering that time can pass between when a building permit is granted, and the actual first drawing of the loan, a conservative time lag of 3 years is taken into account.

#### Conclusion for Wallonia:

➔ Based on the definition of the top 15% of building stock in Wallonia, the following loans are considered eligible under the Green Bond Framework:

- Loans for residential buildings with EPC A or B
- Loans granted for new residential constructions with first loan drawing as from 2014

### 3.3. BRUSSELS

To determine the top 15% of sustainable building stock in Brussels, we apply a similar approach as for Flanders and Wallonia.

#### EPC labels

Brussels has introduced EPC certificates, also referred to as EPB certificates (“Energieprestatie van Gebouwen”) or PEB certificates (“Performance Energétique des Bâtiments”), as a means of indicating the energy performance of buildings. The table below shows the EPC labels and their corresponding energy performance, expressed in kWh/m<sup>2</sup>/year.

EPC	kWh/m <sup>2</sup> /year
A	0 – 45
B	46 – 95
C	96 – 150
D	151 – 210
E	211 – 275
F	276 – 345
G	> 345

Table 9 - EPC scores and corresponding primary energy demand in Brussels<sup>11</sup>

If we look at the current distribution of registered EPC certificates of residential buildings in Brussels (see [Table 10](#)), we can see that dwellings with EPC label A and B fall well within the top 15% of the

<sup>11</sup> Source: Leefmilieu Brussels

sustainable regional building stock. However, if we were to add dwellings with EPC label C as well, we would exceed the 15% threshold.

EPC Label	Percentage
≥ A	0.8%
B	5.5%
C	11.0%
D	18.3%
E	19.5%
F	14.9%
G	30.1%
<b>Total</b>	<b>100%</b>

Table 10 - distribution of residential EPC certificates in Brussels (2021) <sup>12</sup>

The overview above only includes the 300 thousand dwellings in Brussels with a registered EPC score, which corresponds to around 50% of the total building stock in Brussels<sup>13</sup>. As recent regulation mandates newly constructed buildings or significantly renovated buildings to apply for an EPC label, we can assume that buildings without an EPC are on average less energy efficient than buildings with an EPC. Therefore, we can conclude that residential buildings with an EPC label A and B will fall within the top 15% of most energy efficient buildings in Brussels.

### Requirements on new and significantly renovated housing

In 2008, Brussels introduced the “EPB-werkzaamheden” or “Travaux PEB” regulation which sets requirements on the energy performance for new and significantly renovated buildings.

For newly constructed housing where the building permit was introduced as from 01/01/2015, the primary energy demand (expressed in kWh/m<sup>2</sup>/year) is required to be below the following threshold:

$$PEV_{\max} = 45 + \overbrace{\max(0; 30 - 7.5 * C)}^{\text{Compactness}} + 15 * \overbrace{\max\left(0; \frac{192}{V_{EPR}} - 1\right)}^{\text{Volume}} \text{ kWh/(m}^2 \cdot \text{jaar)}$$

This threshold contains two easing parameters: the Compactness (C) and the Volume (V<sub>EPR</sub>) of the dwelling. A dwelling with a compactness above 4 and a volume above 192 will have a required PEV<sub>max</sub> of 45 kWh/m<sup>2</sup>/year, which corresponds to EPC label A. For a dwelling with a lower compactness and a lower volume, the required PEV<sub>max</sub> can be higher than 45 kWh/m<sup>2</sup>/year. However even for a very low compactness and volume, the PEV<sub>max</sub> is expected to be below 95 kWh/m<sup>2</sup>/year, which is the upper value of EPC label B. Moreover, we can expect a more compact and less voluminous dwelling to have a lower actual energy consumption.

<sup>12</sup> [https://document.environnement.brussels/opac\\_css/elecfile/Rapport\\_statistique\\_2021\\_certificationPEB.pdf](https://document.environnement.brussels/opac_css/elecfile/Rapport_statistique_2021_certificationPEB.pdf)

<sup>13</sup> [https://document.environnement.brussels/opac\\_css/elecfile/Rapport\\_statistique\\_2021\\_certificationPEB.pdf](https://document.environnement.brussels/opac_css/elecfile/Rapport_statistique_2021_certificationPEB.pdf)

As both EPC labels A and B belong to the top 15% in Wallonia, this means that buildings constructed under the building regulation in force as from 2015, would be considered as part of the top 15% of regional building stock. Considering that time can pass between when a building permit is granted, and the actual first drawing of the loan, a conservative time lag of 3 years is taken into account.

#### Conclusion for Brussels:

- Based on the definition of the top 15% of building stock in Brussels, the following loans are considered eligible under the Green Bond Framework:
- Loans for residential buildings with EPC A or B
  - Loans granted for new residential constructions with first loan drawing as from 2018

## 4. CONTACT DETAILS

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