



## Impact assessment Eligible Green Loan Portfolio Argenta Belgium

**Project:** Impact Assessment Eligible Green Loan Portfolio Argenta Belgium

**Subject:** Reduced CO<sub>2</sub>-emission calculation

**Date:** March 2023

**Status:** Final

CFP Green Buildings has been asked to compare the greenhouse gas emissions<sup>1</sup> of a specific, energy-efficient group of residential real estate (in this document indicated as Eligible Green Loan Portfolio<sup>2,3</sup>) to that of a comparable group of residential real estate with an average energy efficiency (indicated as “Reference” or “Reference Group”<sup>4</sup>). The objective of this analysis is to report the positive impact of the sustainable residential real estate of Argenta (Belgium). The sustainable residential real estate of Argenta complies with the criteria of the EU Taxonomy Delegated Regulation from June 2021. This document outlines the results of this analysis.

### About Argenta

Argenta Bank- en Verzekeringsgroep (Argenta Group) provides retail financial services for families in Belgium and the Netherlands, through Argenta Spaarbank (banking) and Argenta Assuranties (insurance). Founded in 1956, Argenta is today Belgian’s sixth largest banking institution by customer deposits, with over 1.7 million customers. It’s product offering

that focuses on simplicity and long-term relationships of trust with the clients builds on four pillars:

- Savings
- Lending
- Insurance
- Investments

The group operates in Belgium through an extensive network of local self-employed, tied agents.

### Mission and vision

Argenta wants to assist families and individuals in living financially healthy lives in a simple, honest, and close-at-hand way. Additionally, this mission takes into account the company values that have marked Argenta’s strategy and corporate culture from the outset:

- Simple, ‘no frills’
- Honest
- Close-at-Hand
- Enterprising and Independent
- Future-oriented and Safe

Argenta is an independent bank-insurer with an excellent customer service and long-term relationships with all its stakeholders. It is a solid and stable institution with strong capital

<sup>1</sup> Greenhouse gas emissions are calculated in CO<sub>2</sub>-equivalent, which will be referred to as CO<sub>2</sub> throughout this document.

<sup>2</sup> When referring to the Eligible Green Loan Portfolio in this document, we refer to Residential Green Buildings in Flanders and Wallonia only.

<sup>3</sup> The Eligible Green Loan Portfolio consists of 12,737 objects. The Eligible Green Loan Portfolio represents 13.96% of the total outstanding amount of the total portfolio as mentioned above.

<sup>4</sup> To determine the baseline of average dwelling energy efficiency, we use average data on usable floor area for new apartments and houses and average data on energy consumption for heating per household.

and liquidity ratios and sound risk and investment policies. The rapid digital evolution goes hand-in-hand with special attention to cyber security and data protection. In Belgium, Argenta wants to be easily accessible through its self-employed distribution partners but also digitally with a range of retail banking and insurance products tailored to individuals and families. In the Netherlands, distribution takes place digitally and through independent distribution channels, with a focus on mortgage loans. In Luxembourg, Argenta manages investment funds.

### Building regulations

Assets in the Eligible Green Loan Portfolio should belong to the top 15% of the national or regional building stock expressed as operational Primary Energy Demand, as required by the EU taxonomy. The year of construction is used to determine the top 15%. Over time, the Flemish and Walloon Building Regulations have become more stringent in terms of energy efficiency and sustainability requirements for new buildings. Therefore, the building year is used as a criterion for the selection of the Argenta Eligible Green Loan Portfolio. To define the top 15%, the selected year for Flanders is 2012, and 2010 for Wallonia. The methodology for defining the top 15% is described in the “Methodology report Sustainable Residential Buildings BE” published by Argenta. The document predicts that newly built buildings in Flanders will grow by 50,000 per year. In Wallonia, the predicted amount is 12,000 assets per year. Actual data of newly built residential buildings is illustrated in table 1.

### Newly built buildings

	2021	2022 <sup>5</sup>
Wallonia	13,006	9,922
Flanders	43,851	37,387

Table 1: Actual numbers newly built buildings

Combining the numbers of the methodology report and the table above leads to the following conclusions. As per end of 2022, there are 436,628 assets in Flanders built since 2012. This is approximately 13.2% of all buildings in Flanders (3.32 million residential buildings as per end of 2022<sup>6</sup>). As per end of 2022, there are 150,274 assets in Wallonia built since 2010, which is 8,5% of all buildings within Wallonia (1.77 million residential buildings as per end of 2022<sup>6</sup>).

### Methodology

The CO<sub>2</sub> emissions of the 12,737 eligible objects are determined by using the calculated energy consumption of these objects. Of these objects, 11,460 are located in Flanders and 1,277 in Wallonia. The energy usage is based on algorithms from the expert system of CFP Green Buildings. In this study, the calculated energy consumption of the Reference Group was determined based on data from ‘Statistiekvlaanderen.be’, ‘energiebesparen.be’ and ‘CEHD.be’. The Reference Group is a group of residential buildings with comparable floor area and average energy efficiency. The total energy consumption can be converted to CO<sub>2</sub> emissions by using standard conversion factors. The heat-related primary energy consumption calculation is based on the average share of the main energy sources used for heating by households. In Flanders, these main energy sources are electricity, natural gas, heating oil and pellets. Electricity, natural

<sup>5</sup> Source: Statistiek Vlaanderen – Nieuwbouwvergunningen. Data of 2022 is incomplete at the date of writing this report. The amount of buildings reported are built between January and November 2022.

<sup>6</sup> Source for number of residential buildings: Statbel

gas, heating oil and wood are the main energy sources for heating of residential buildings in Wallonia. The Belgian government created a widely accepted and uniform list with grid emission factors: [www.co2emissiefactoren.be](http://www.co2emissiefactoren.be). As in line with PCAF<sup>7</sup>, the grid emissions related to the direct emissions are used, which is also known as Tank-To-Wheel (TTW<sup>8</sup>). The factor for electricity is updated regularly to reflect changes in the Belgian electricity mix. This leads to the following emission factors:

#### Applied GHG emission factors<sup>9</sup>

Natural gas	0.182	kg/m <sup>3</sup>
Electricity	0.169	kg/kWh
Heating oil	2.7	kg/m <sup>3</sup>
Pellets	0.1408	kg/kg
Wood	0.1043	kg/kg

Table 2: Belgian CO<sub>2</sub>-emission factors

Table 3 shows the calculated energy consumption of the Eligible Green Loan Portfolio. On average, Walloon residential buildings consume more energy than Flemish dwellings. The Flemish eligible assets (constructed after 2010) consume significantly less energy than the Walloon Reference Group. The procedure for defining the top 15% is set out in the Methodology Report. The calculated energy consumption for the Eligible Green Loan Portfolio is 133 million kWh. The total calculated energy consumption is 60 kWh per m<sup>2</sup>.

#### CO<sub>2</sub>-emission

Table 4 shows the CO<sub>2</sub>-emissions of the Eligible Green Loan Portfolio and the Reference Group, based on the calculated energy consumption. The total CO<sub>2</sub>-emissions of the Eligible Green Loan Portfolio are 23,784 tons per year. The annual CO<sub>2</sub>-emission for the Reference Group is 42,888 tons.

#### Energy consumption

	Flanders		Wallonia		Total	
	kWh(x10 <sup>3</sup> )	(kWh/m <sup>2</sup> )	kWh(x10 <sup>3</sup> )	(kWh/m <sup>2</sup> )	kWh(x10 <sup>3</sup> )	(kWh/m <sup>2</sup> )
Energy consumption	103,572	52	29,673	128	133,245	60

Table 3: Calculated energy consumption Eligible Green Loan Portfolio

	GHG emission		
	Eligible Green Loan Portfolio (tonnes CO <sub>2</sub> e)	GHG emission Reference (tonnes CO <sub>2</sub> e)	GHG emissions Avoided (tonnes CO <sub>2</sub> e)
GHG Emissions	23,784	42,891	19,106

Table 4: CO<sub>2</sub>-emission Eligible Green Loan Portfolio compared to the Reference Group

<sup>7</sup> Partnership for Carbon Accounting Financials (PCAF) is a global partnership of financial institutions that work together to develop and implement a harmonized approach to assess and disclose the greenhouse gas (GHG) emissions associated with their loans and investments.

<sup>8</sup> Tank-to-Wheel (TTW) are the direct emissions of an activity. In this case, the direct emissions of the energy usage.

<sup>9</sup> Source: <https://www.co2emissiefactoren.nl> using TTW emissions. Emissions from coal, butane and propane are excluded from this report as they are a small percentage of total emissions.

### Annual development of climate impact

CFP Green Buildings also gave insights in the energy consumption of the Eligible Green Loan Portfolio as per year-end 2021 and compared the CO<sub>2</sub>-emissions of the Eligible Green Loan Portfolio to that of a comparable group of residential real estate with an average energy-efficiency. Figure 2 shows the energy consumption of the Eligible Green Loan Portfolio in 2021 and 2022 for both Flanders and Wallonia. In order to compare outcomes of both reports the numbers are converted to energy consumption per m<sup>2</sup>. The energy consumption for Flanders and Wallonia in the Eligible Green Loan Portfolio for the years 2021 and 2022 are illustrated below.

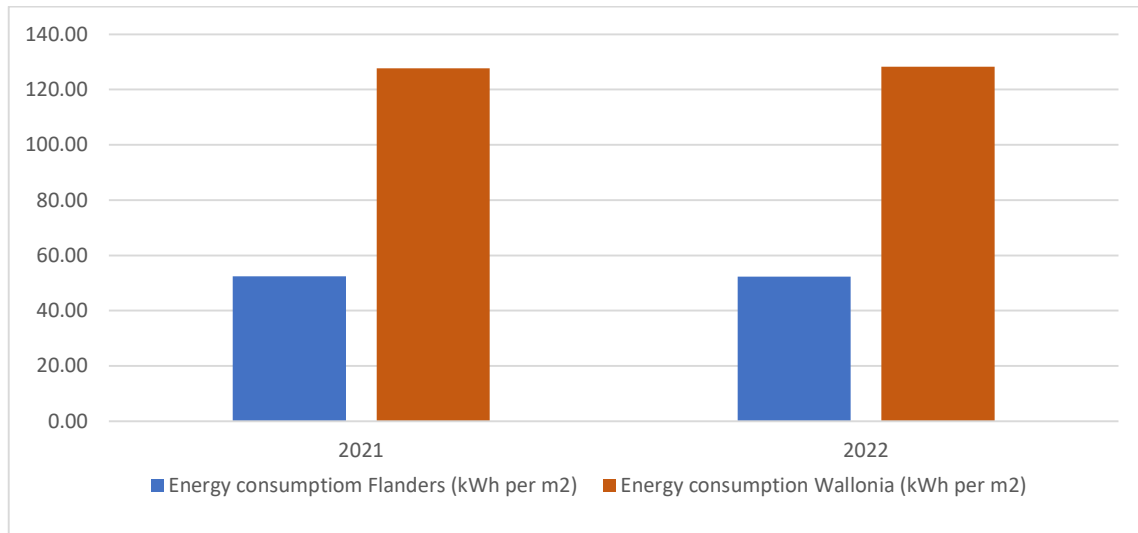


Figure 2: Energy consumption comparison for the years 2021 and 2022

Figure 3 gives insight to the reduced CO<sub>2</sub>-emissions per m<sup>2</sup> of the Eligible Green Loan Portfolio in 2021 and 2022. The total energy consumption is converted to CO<sub>2</sub>-emission by using standard conversion factors. The CO<sub>2</sub>-emission is calculated over the entire portfolio, divided by the total amount of square meters.

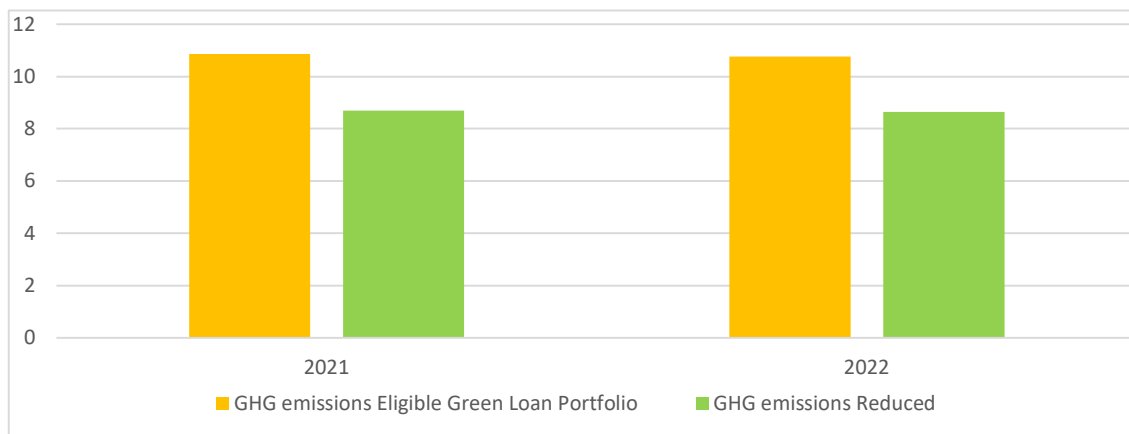


Figure 3: Reduced CO<sub>2</sub>-Emissions relative to the reference group for the years 2021 and 2022

This graph illustrates that the GHG emissions of the Eligible Green Loan Portfolio have decreased over the last year, from 10.86 kg CO<sub>2</sub> per m<sup>2</sup> to 10.76 kg CO<sub>2</sub> per m<sup>2</sup>. In addition, the emissions based on the

reference have decreased on year basis. For the year 2021 this was 8.69 kg CO<sub>2</sub> per m<sup>2</sup> reduced, while the year 2022 had 8.64 kg CO<sub>2</sub> per m<sup>2</sup> reduced. Moreover, the percentage CO<sub>2</sub> relative to the reference group has increased by 1% from 44% to 45%.

## **Conclusion**

The following conclusions are drawn from this study:

- The buildings in the Eligible Green Loan Portfolio are estimated to emit 19,105 tonnes of CO<sub>2</sub> per year less than the Reference Group, which is a difference of 45%.
- Total primary energy consumption is calculated at 60 kWh/m<sup>2</sup>.
- All buildings in the Eligible Green Loan Portfolio deliver a substantial contribution to climate change mitigation following the EU Taxonomy definition as they belong to the top 15% of the national building stock expressed as operational PED.
- Even though there is a slight decrease in CO<sub>2</sub>/m<sup>2</sup> reduced, the reduction of GHG emissions has improved by 1%.