

EU Taxonomy Alignment Methodology Document for Sustainable Residential Buildings in The Netherlands

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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 fifth-largest banking institution by customer deposits, with over 1.7 million customers. Its 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 & 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 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.

Intent of this document

Annex I (Climate Change Mitigation) of the EU Taxonomy Delegated Regulation from June 2020, chapter 7.7., supplementing Regulation (EU) 2020/852 of the European Parliament and the Council formulates the Technical Screening Criteria (TSC) for sustainable buildings for "Substantial contribution to climate change mitigation" as follows: *For buildings built before 31 December 2020, the building has at least an Energy Performance Certificate (EPC) class A. As an alternative, the building is within the top 15% of the national or regional building stock expressed as operational Primary Energy Demand (PED) and demonstrated by adequate evidence, which at least compares the performance of the relevant asset to the performance of the national or regional stock built before 31 December 2021 and at least distinguishes between residential and non-residential buildings. For constructions of new buildings as of 2021, the PED needs to be at least 10% lower than the threshold set for nearly zero-energy building (NZEB) requirements.*

Primary Energy Demand (PED) refers to the quantity of energy required to obtain the total amount of energy that a dwelling demands from fossil fuels such as gas and electricity. The higher the number of residents or the bigger the living space, the greater the primary energy demand. To achieve the required primary energy demand of a residential building, sustainability and retrofitting strategies are essential to reduce primary energy consumption and improve the energy rating.

The energy demand in the Netherlands is represented as "primair fossiel energieverbruik" (Primary Energy Demand¹) and varies per size of the building and per number of residents.

CFP has been asked to provide consulting services to develop a methodology and adequate evidence to define the top 15% sustainable residential buildings in Belgium, following the Delegated Regulation. CFP was not asked to investigate the DNSH criteria, such as climate change adaptation.

Executive Summary

Sustainable residential buildings within the top 15% of the national or regional building stock expressed as operational Primary Energy Demand (PED) in the Dutch context have been determined as follows:

- 19% of all residential buildings have a registered or provisional Energy Performance Certificates (EPC)¹ rating A.
- Newly built residential buildings since 2006 belong to the top 15% (<160 kWh/m²/year).
- As the building stock evolves over time, and more energy-efficient buildings are constructed, it is recommended to redefine the top 15% regularly.

¹ In the Netherlands, the definition EPC is also used for the building code for new buildings. In this study, the term EPC is used as definition of the energy certificate ('energielabel' in Dutch)

EPC labels in the Netherlands

Energy Performance Certificates are important instruments that should contribute to enhancing the energy performance of buildings. The certificate can potentially influence builders and real estate owners to increase energy efficiency and implement energy-saving measures in renovation projects.

As a consequence of the 2002 European Energy Performance of Buildings Directive (2002/91/EC), EU Member States have to implement Energy Performance Certificates. EPCs play a central role in the context of Article 20⁽²⁾ EPBD, which asks the Member States to provide information on the energy performance of buildings to the owner(s) or tenant(s). The information must include the EPC and the inspection report on which the EPC is based. The importance of EPCs and the attention to the corresponding

policies increased due to the recast of the EPBD (Directive 2010/31/EU) in 2010.

An EPC label aims to indicate how energy-efficient a home is and which energy-saving measures can be implemented. The assigned letter of an energy label is determined based on fossil energy consumption, expressed in kilowatt-hours per square meter per year (kWh/m²/year). The label classes for homes run from A to G. Homes with the label A are the most energy-efficient, and houses labelled G are the least energy efficient. A building with an energy label A+++ can be identified as a nearly zero-energy building (NZEB). The label also provides an overview of housing characteristics, such as the housing type, insulation, glazing, and heating. The current situation of EPC ratings in the Netherlands is described in the table below.

Energy label	EPC Score	PED in kWh/m ² /year	Registered certificates	Provisional certificates	Total certificates	% of total certificates
A, A+, A++, A+++	<1,20	0 < PED < 160	1.217.535	348.807	1.566.342	19,3%
B	1,21-1,40	160 < PED < 190	766.976	556.302	1.323.278	16,3%
C	1,41-1,80	190 < PED < 250	1.197.784	988.148	2.185.932	27,0%
D	1,81-2,10	250 < PED < 290	586.674	265.766	852.440	10,5%
E	2,11-2,40	290 < PED < 335	339.387	332.333	671.720	8,3%
F	2,41-2,70	335 < PED < 380	206.800	420.701	627.501	7,8%
G	>2,70	> 380	177.280	691.882	869.162	10,7%
Total			4.492.436	3.603.939	8.096.375	100,0%

Table 1: Energy performance certificates in The Netherlands²

² Source for EPC labels: <https://www.ep-online.nl/>

On 31st December 2020, 4,5 million residential buildings in the Netherlands have a registered EPC. Of these buildings, 1,2 million are registered with an EPC rating A. Certified energy advisors and audited organizations calculate or validate energy performance certificates³. To calculate the percentage of EPC A rated houses as a percentage of the total residential building stock, there are some limitations:

- The quantity of registered and provisional certificates is based on the EP-Online database. The Netherlands Enterprise Agency (RVO) owns and maintains this database. All Energy Performance Certificates are registered in this database. The database includes certificates of multi-purpose buildings (e.g., office combined with housing) and houses with a recreational purpose. The Kadaster⁴ (national Land Registry Office) does not include these buildings in the residential building stock.
- The total residential building stock also includes national and regional monumental buildings. Monumental buildings might have an EPC label; however, it is not mandatory. At the time of writing, there are 31.637 national residential monuments and 55.801 regional monuments, according to CBS⁵.

The impact of both limitations on the definition of the top 15% sustainable residential buildings in the Netherlands is negligible.

Provisional EPC ratings

The energy efficiency of existing residential buildings can be determined using three different methods:

- The provisional energy label provided by the Dutch government;
- A calculation made, at a distance, by a certified energy advisor and based on the most important building characteristics and;
- A more extensive calculation at location (which considers around 150 building characteristics), resulting in the EPC score.

The last two methods result in a registered certificate.

44,5% of residential buildings in The Netherlands do not have a registered energy label yet. In 2015, all non-labelled residential buildings were allocated with provisional energy certificates. The Dutch government defines these provisional certificates and are based on building characteristics such as the construction year and the type of building.

All buildings built in the Netherlands after 2006 received a provisional EPC rating A if a registered EPC was not provided. In practice, 94,2% of these provisional certificates also lead to a registered label A. Because this is a relatively high percentage, we include the provisional certificates in the calculation to determine the top 15%.

³ Certified energy advisors are registered at OBis: <https://www.qbis.nl/zoeken/hoofd/Energie-advis>

⁴ <https://www.kadaster.nl/>

⁵ CBS, Centraal Bureau voor de Statistiek

Dutch building regulation requirements

Combined with the provisional energy certificates, the number of buildings with an EPC rating A (maximum PED of 160 kWh/m²/year) will be 19% of the total residential building stock. Consequently, the top 15% performing residential buildings in the Netherlands fall within the EPC category A, and thus a further breakdown is required.

Development of the EPC requirements

The Dutch Building Regulation sets out energy efficiency requirements for different building types using an EPC score. For example, the Dutch Building Code 2000 requires an EPC score of 1,0 or lower. The correspondence between building years and the EPC score is shown in Table 1 and the values in Figure 1. Over time, the Dutch Building Regulation became more stringent in energy efficiency and sustainability requirements for new buildings, resulting in a more efficient PED. Therefore, new buildings built according to the most recent regulation are likely to have improved efficiency compared to older buildings complying with older regulations.

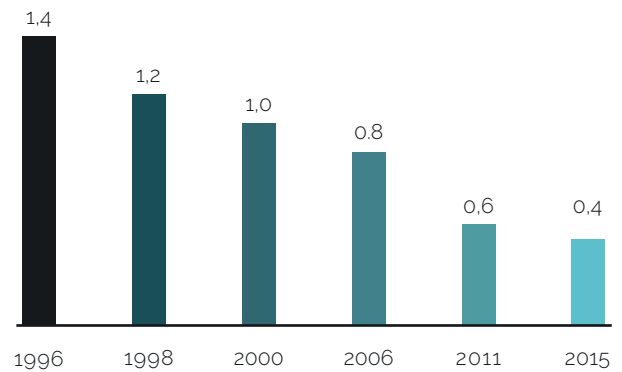


Figure 1 EPC score per year (according to building code)

Determining the top 15% of regional residential building stock

As 19% of the residential buildings have a registered or provisional EPC rating of A, we suggest using the building's year of construction as an additional criterion to establish the top 15% in terms of PED. It is important to define in which year the 15% line will be drawn. By the end of 2020, there were 7,8 million residential buildings in the Netherlands. Of these buildings, 15.1% (1.2 million) were constructed between 2003 and 2020. This does not automatically mean that the year of construction is a sufficient criterion for the following reasons:

- Not all buildings built since year-end 2002 have an EPC A rating. Dutch residential properties should have an EPC A rating to comply with the EU Taxonomy. Therefore, the proportion of the residential stock taken into consideration is limited to residential properties with EPC rating A and excludes all those buildings built after year-end 2002 that have an EPC rating B or worse.
- To develop a methodologic approach that is applicable and sufficient for the following years, CFP has included the estimated building stock growth in the upcoming years, based on national governmental data.

The table below lists the newly built buildings between 2000 and 2024, based on the Kadaster database. The database was checked against EP-Online to match the newly built houses with

Period	New build houses	EPC B-G registered	Buildings with EPC A ⁷
2000	74.774	18.359	56.415
2001	77.181	16.780	60.401
2002	71.143	14.578	56.565
2003	64.102	12.495	51.607
2004	69.832	12.350	57.482
2005	71.541	14.597	56.944
2006	77.103	7.999	69.104
2007	85.201	6.173	79.028
2008	84.174	6.605	77.569
2009	87.835	6.045	81.790
2010	60.556	4.926	55.630
2011	62.199	5.399	56.800
2012	48.668	3.419	45.249
2013	49.311	3.870	45.441
2014	45.170	2.186	42.984
2015	48.381	998	47.383
2016	54.849	1.824	53.025
2017	62.982	840	62.142
2018	66.585	1.187	65.398
2019	71.548	1.644	69.904
2020	69.000	3.448	65.552
2021	77.000	-	77.000
2022	80.000	-	80.000
2023	80.000	-	80.000
2024	80.000	-	80.000

Table 2: Match between building year of construction and EPC label for all residential buildings built between 2000 and 2024

the Energy Performance Certificates⁶.

The table also shows the number of EPC ratings B-G and the number of buildings within the criteria of the Framework (only residential buildings with EPC label A are in scope).

⁶ Kadaster and EP-Online are updated daily; however, Kadaster does not include exact information on building month. Therefore, CFP uses year-end data when performing the calculations.

⁷ Eligibility Criteria in the Framework. In fact, for Dutch residential properties built prior to 31 December 2020, only existing residential buildings with an Energy Performance Certificate (EPC) label 'A' or belonging to the top 15% sustainable residential buildings in The Netherlands are selected.

At the time of writing, there are 1,1 million buildings that meet both criteria: EPC label A and building year of construction 2002. Considering the building stock growth of the following years, we can assume that the criterion for the building year will shift to 2005 in 2023. The table

below shows the development of the year of construction as a criterion. In 2024, the criteria for EPC A and building year should possibly be revised because the combination of both requirements exceeds the top 15% requirement.

Assessment year ⁸	Building year of construction	Residential building stock	Buildings in scope (EPC label A only)	% of stock
2020	2002	7.815.000	1.139.597	14,6%
2021	2003	7.892.000	1.160.032	14,7%
2022	2004	7.972.000	1.188.425	14,9%
2023	2005	8.052.000	1.210.943	15,0%
2024	2006	8.132.000	1.233.999	15,2%

Table 3: Evolution of the top 15% sustainable residential buildings in the Netherlands (2020-2024)

Conclusion of the top 15% expressed as Primary Energy Demand

Eligible existing residential buildings must have an EPC rating of A or an operational PED that belongs to the top 15% sustainable residential buildings. Since 19% of the residential buildings have an EPC rating of A, CFP recommends using the year of construction 2006 to establish the top 15% expressed in Primary Energy Demand.

Residential buildings built after 2006 comply with an EPC score of 0,8, which corresponds to an EPC certificate A or better. The top 15% is evolving due to new buildings being built and thus being added to the building stock. Therefore, it is recommended to redefine the top 15% regularly.

⁸ Calculations are performed using real or estimated year end data.



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