



Bauhaus meeting – The Impact of the EU taxonomy on Dutch Mortgages

Energy Efficiency Mortgages Hub - Netherlands



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Agenda

NL Hub introductory meeting - The Impact of the EU taxonomy on Dutch Mortgages

01

Introduction: About the Energy Efficient Mortgages Hub Netherlands.

02

Dutch Housing Market: A quick overview of the characteristics of the Dutch housing market and how it is financed

03

The Dutch Building Code: NZEB, EPBD, PED and BENG – An overview of the Dutch energy labelling methodology.

06

Next steps: Establish best practices, white paper, formalization of HUB, alignment EEML.
Forthcoming regulation (EU green bond standard, EBA green securitization framework, etc.)

05

EU Taxonomy: Some implications, practical challenges and (potential) consequences when applied to the Dutch market.

04

EU Taxonomy: An overview of selected paragraphs s from Annex 1: Climate Change Mitigation Screening Criteria, section 7.

Energy Efficient Mortgages Netherlands – An Introduction

Goal: participants of the EEM NL hub support and promote the acceleration and adaptation of energy efficient housing in the Netherlands.

- **Who:** a voluntary group of stakeholders representing the following mortgage stakeholders: banks, insurers, data & it, legal firms, investors and other (semi-government) organisation(s)
- **By:** Aligning with European and National stakeholders: EEMI, ECBC, NVB, DACB, Verbond v. Verzekeraars, DSA, Kadaster, RVO, Ministerie (VWS, Financien, Economische Zaken)
- **Scope:** Dutch residential mortgages
- **What:** Discuss and discover scalable solutions that enhance insights and broader adaptation of Energy Efficient Mortgages
- **What:** Cover practical legal & IT challenges. Future proof data journey from an IT perspective: from retail originating to institutional funding.
- **By:** Developing best practices on topics such as: origination, client engagement, marketing, data, reporting and establish a broad knowledge base

Parties involved:



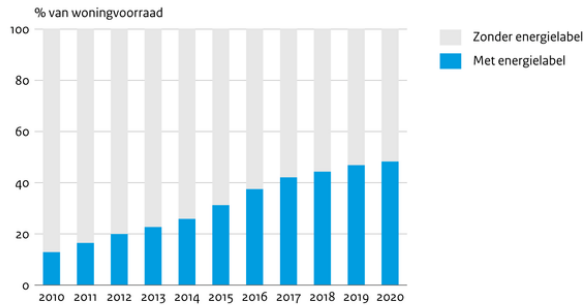
Energy Efficient Mortgages Netherlands – An Introduction

Goal: participants of the EEM NL hub support and promote the acceleration and adaptation of energy efficient housing in the Netherlands.



Dutch Mortgage Market

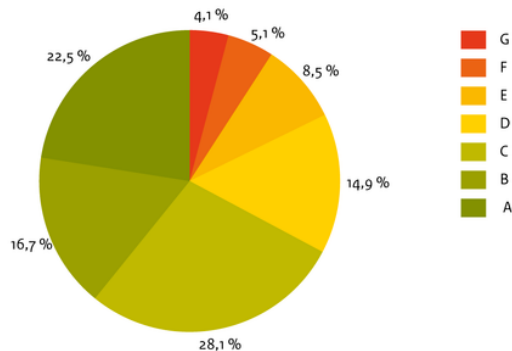
Aandeel woningen met energielabel



Bron: RVO.nl

PBL/julzo
www.clo.nl/nl055608

Labelverdeling woningen, 1 januari 2020



01. Open & Transparent

The Dutch mortgage market is characterised by being an open and transparent market. In total there are roughly 40 different mortgage labels. About 70% of the mortgages are produced through independent intermediary channels.

02. Standardisation & uniformity

The Dutch systems benefits from a large degree of standardisation and uniformity in mortgage servicing, reporting and best practices for both retail customers and investors. NIBUD sets the retail norm for mortgage products. Mortgages \leq € 325.000 can obtain a national mortgage guarantee (NHG).

03. External financing

As is important to know for the next sections, the Dutch housing market is funded by a very large share via external / off-balance sheet capital market instruments (e.g. Covered Bonds, Securitisation, Wholeloan funding) and is highly dependent upon on funding from non-traditional mortgage lenders.

04. Pioneering

Within the Netherlands several mortgage originators have issued green RMBS and Covered Bond transactions. The Dutch mortgage originator Obvion was the first company in Europe to issue a Green Securitisation and publicly disclose loan level data (including EPC's).

05. Sustainable housing Stock

The composition of the Dutch housing stock is relatively sustainable. This is mainly due to the fact that energy efficiency is enforced by the national building code. As of 2020: about 3.8 million out of 7.9 million houses (which are based upon the previous energy label methodology) in the Netherlands have an energy label. Out of these 3.8 million 22.5% is class A and 16.7% is class B.

06. NCEP Committed

50 leading companies of the Dutch financial sector (banks, pension funds, insurance companies and asset managers) signed the national climate commitment: a treaty describing the commitment of the financial sector to realising the 'klimaatcommitment'.

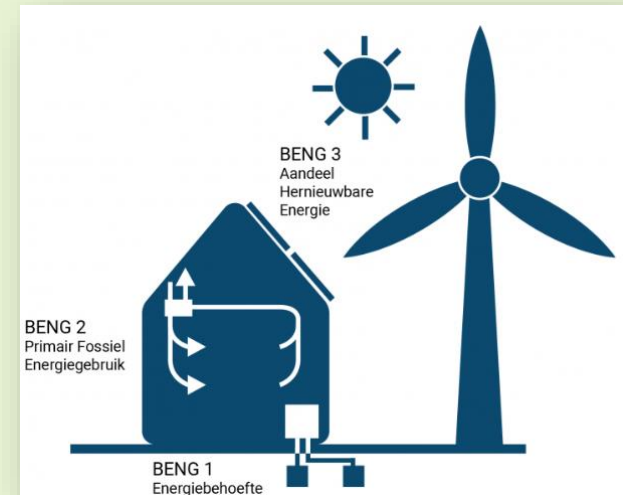
The Dutch building code: BENG = EPBD + NZEB + NCEP

EPBD in the Netherlands

- The EPBD requires all new buildings from 2021 (public buildings from 2019) to be in line with the Near Zero Energy Building directive (NZEB).
- All new buildings must be nearly zero-energy buildings from 31 December 2020, by law.
- The energy performance of buildings in the Netherlands is determined based on a new national calculation method called NTA 8800 and provides information about the energy quality of the home or building.
- **NTA 8800 is applicable to both existing and new buildings.**
- In the Netherlands all new construction permits must comply with BENG (*Bijna Energieneutrale Gebouwen*). The requirements set forward in BENG incorporate:
 - EU regulation: Energy Performance of Buildings Directive (EPBD)
 - EU regulation: NZEB
 - Dutch NECP (Dutch Climate Treaty)
 - Dutch Building code

BENG: the new building code consists of three components that take into account building related energy consumption (for heating, cooling and (warm) water).

- **BENG 1:** Total energy demand: relates to the exterior of the building and is an indicator for the maximum total energy demand measured in kWh/m² per year. This indicator measures the total energy demand for heating or cooling the building.
- **BENG 2:** The prime (fossil) energy demand in kWh/m² of the building. This is a leading indicator and directly related to prime energy demand.
- **BENG 3:** Share of energy demand obtained from renewable sources. This should at least be 40% for new residential constructions.



BENG (2) directly relates to prime energy demand

BENG norm

- The BENG norm has a threshold norm for new constructions in the Netherlands in terms of primary energy demand (PED). The PED, with the introduction of BENG / NTA8800 corresponds directly to the Energy Labels.
- Houses and apartments must have an energy label when they are being built, sold or rented. The owner must hand over the energy performance certificate (EPC) to the purchaser or tenant. Since the start of 2021, the certificate can only be issued by a certified advisor following an on-site visit.
- The EPC includes at least a numeric energy performance indicator of the primary fossil energy use in kWh/m² per annum and a letter or combination of letters to express the energy performance of the building.
- Energy performance certificates that have been obtained before 1 January 2021 remain valid for 10 years.
- Also note that A+++ equals a PED of 50 kWh/m² and is the current norm for the building code. In other words all newly constructed buildings or after a major renovation will be required to meet <= 50 kWh/m² as of 2021 and are thus A+++.
- During the roundtable sessions participants expressed the concern on how to interpret, in practice, the difference between the building standards, that are typically from 1 to 2 years before the construction is finished (the building code matching the building permit) and the moment the energy audit is performed. The latter can be based on a newer standard compared to that of the building permit.

EPC Class	Energy Label (NTA 8800)	BENG 2: Primary Energy Demand (fossil) [kWh/m ²]
A	A+++	<= 0
A	A+++	> 0 & <= 50 (national building code for new constructions)
A	A++	>50 & <= 80
A	A+	>80 & <= 110
A	A	>110 & <= 165
B	B	>165 & <= 195
C	C	>195 & <= 255
D	D	>255 & <= 300
E	E	>300 & <= 345
F	F	>345 & <= 390
G	G	>390

BENG incorporates EU and National regulation(s)

01. EPBD

The EPBD requires all new buildings from 2021 (public buildings from 2019) to be in line with the Near Zero Energy Building directive (NZEB).



02. NZEB

All new buildings must be nearly zero-energy buildings (NZEB) from 31 December 2020. The nearly zero or very low amount of energy required should be covered to a very significant extent from renewable sources, including sources produced on-site or nearby.

03. NCEP

The relevant items and national ambitions of the Dutch NCEP (climate treaty / *klimaatakkoord*) have been taken into account in establishing BENG and NTA 8800

04. BENG 2 = PED

The BENG norm has a threshold norm for new constructions in the Netherlands in terms of primary energy demand (PED). The PED, with the introduction of BENG / NTA8800 corresponds directly to the Energy Labels.

05. Building Code

A+++ equals a PED of 50 kWh/m² and is the norm for the building code for new constructions in the Netherlands.

06. Publicly available

Houses and apartments must have an energy label when they are being built, sold or rented. The owner must hand over the energy performance certificate (EPC) to the purchaser or tenant. Since the start of 2021, the certificate can only be issued by a certified advisor following an on-site visit. The EPC is publicly available.

EU Taxonomy

In short:

- The **EU Taxonomy** is a new regulation that constitutes the cornerstone of the EU Sustainable Finance Action Plan.
- It **aims to create a harmonized understanding of what actually constitutes 'green activities'**.
- The Taxonomy provides a **common language** and uniform criteria to identify the extent to which economic activities may be considered environmentally sustainable
- Ultimately, its aim is to reorientate **capital flows towards lower-emission economic activities** that will help decarbonize the economy.
- EU hopes to reach **its 2030 climate targets and the ultimate goal of net-zero greenhouse gas emissions by 2050**
- The Taxonomy defines the **minimum criteria that economic activities should comply with in order to be considered environmentally sustainable**
- The EU Taxonomy Regulation introduces mandatory disclosure requirements that target three groups of users, as illustrated below:



1. Financial markets participants offering financial products in the EU, including operational pension providers



2. Large companies who are already required to provide a non-financial statement under the Non-Financial Reporting Directive; and



3. The EU and Member States, when setting public measures, standards or labels for green financial products or green (corporate) bonds

EU Taxonomy will define Sustainable Investments:

- EU Taxonomy will create harmonized definitions of 'green'
- Companies and asset managers need to report alignment
- Two out of six environmental objectives developed so far

Reporting requirements

Large listed companies incorporated in the EU are required to report which part of their revenue and expenditure is in line with the EU Taxonomy. Investors will have to disclose the percentage of their funds' assets under management that sit within Taxonomy-aligned activities.

The data challenge

For each of the eligible economic activities, the Taxonomy provides detailed technical screening criteria that must be complied with in order to determine that an activity is Taxonomy-aligned. The activity-level focus is something new for most market participants. Whereas traditional ESG scores of companies focus on the company's performance, the Taxonomy demands a deeper level of granularity in order to assess the eligible activities that companies undertake.



EU Taxonomy Climate Delegated Act (Annex 1 and 2)

Key points:

The Taxonomy Regulation is an important enabler for scaling up sustainable investment and therefore implementing the European Green Deal as part of the EU's response to the climate and environmental challenges.

It provides uniform criteria for companies and investors to determine which economic activities can be considered environmentally sustainable, and thus aims to increase transparency and consistency in the classification of such activities and limit the risk of greenwashing and fragmentation in relevant markets.

Different delegated acts published for climate mitigation and climate adaptation

- [Annex 1 to the EU Taxonomy Climate Delegated Act for Climate change mitigation](#)
- [Annex 2 to the EU Taxonomy Climate Delegated Act for climate change adaptation](#)

Economic activities can be set for:

- Climate Change Mitigation: holding the increase of global temperature below 2C (long term temperature goal) and stabilisation of greenhouse gas emissions, in line with Paris Agreement.

(24) An economic activity that pursues the environmental objective of climate change mitigation should contribute substantially to the stabilisation of greenhouse gas emissions by avoiding or reducing them or by enhancing greenhouse gas removals. The economic activity should be consistent with the long-term temperature goal of the Paris Agreement. That environmental objective should be interpreted in accordance with relevant Union law, including Directive 2009/31/EC of the European Parliament and of the Council ⁽⁵⁾.

(5) 'climate change mitigation' means the process of holding the increase in the global average temperature to well below 2 °C and pursuing efforts to limit it to 1,5 °C above pre-industrial levels, as laid down in the Paris Agreement;

- Climate change adaptation: reduce (current or future) adverse climate effects in accordance with Sendai framework for disaster risk reduction

(25) An economic activity that pursues the environmental objective of climate change adaptation should contribute substantially to reducing or preventing the adverse impact of the current or expected future climate, or the risks of such adverse impact, whether on that activity itself or on people, nature or assets. That environmental objective should be interpreted in accordance with relevant Union law and the Sendai Framework for Disaster Risk Reduction 2015–2030.

(6) 'climate change adaptation' means the process of adjustment to actual and expected climate change and its impacts;

Annex 1: Climate Change Mitigation - Mortgage References

Annex 1 & Mortgage References

As the economic activity “mortgages” is not directly mentioned, we look into the financing of the economic activities:

- Construction of New Buildings (7.1)
- Renovation of Existing Buildings (7.2)
- Acquisition and ownership of buildings (7.7)

In line with EBF / UNEP Finance Initiative study “Testing the application of the EU Taxonomy to core banking products” (2021).

Article 10

Substantial contribution to climate change mitigation

1. An economic activity shall qualify as contributing substantially to climate change mitigation where that activity contributes substantially to the stabilisation of greenhouse gas concentrations in the atmosphere at a level which prevents dangerous anthropogenic interference with the climate system consistent with the long-term temperature goal of the Paris Agreement through the avoidance or reduction of greenhouse gas emissions or the increase of greenhouse gas removals, including through process innovations or product innovations, by:

- generating, transmitting, storing, distributing or using renewable energy in line with Directive (EU) 2018/2001, including through using innovative technology with a potential for significant future savings or through necessary reinforcement or extension of the grid;
- improving energy efficiency, except for power generation activities as referred to in Article 19(3);
- increasing clean or climate-neutral mobility;

Highlights of Chapter 7 Construction & Real Estate in Annex 1

Reference	Economic Activity	Technical Screen Criteria	Footnote	Interpretation
7.1	Construction of New Buildings	<p>The Primary Energy Demand (PED), defining the energy performance of the building resulting from the construction, is at least 10 % lower than the threshold set for the nearly zero-energy building (NZEB) requirements in national measures implementing Directive 2010/31/EU of the European Parliament and of the Council.</p> <p>The energy performance is certified using an as built Energy Performance Certificate (EPC).</p>	<p>PED = The calculated amount of energy needed to meet the energy demand associated with the typical uses of a building expressed by a numeric indicator of total primary energy use in kWh/m2 per year and based on the relevant national calculation methodology and as displayed on the Energy Performance Certificate (EPC).</p>	
7.2	Renovation of Existing Buildings	<p>The building renovation complies with the applicable requirements for major renovations.</p> <p>Alternatively, it leads to a reduction of primary energy demand (PED) of at least 30 %.</p>	<p>As set in the applicable national and regional building regulations for 'major renovation' implementing Directive 2010/31/EU. The energy performance of the building or the renovated part that is upgraded meets cost-optimal minimum energy performance requirements in accordance with the respective directive.</p> <p>The initial primary energy demand and the estimated improvement is based on a detailed building survey, an energy audit conducted by an accredited independent expert or any other transparent and proportionate method, and validated through an Energy Performance Certificate. The 30 % improvement results from an actual reduction in primary energy demand (where the reductions in net primary energy demand through renewable energy sources are not taken into account), and can be achieved through a succession of measures within a maximum of three years.</p>	<p>'major renovation' means the renovation of a building where:</p> <p>(a) the total cost of the renovation relating to the building envelope or the technical building systems is higher than 25 % of the value of the building, excluding the value of the land upon which the building is situated; or</p> <p>(b) more than 25 % of the surface of the building envelope undergoes renovation;</p> <p>Member States may choose to apply option (a) or (b).</p>
7.7	Acquisition and ownership of buildings	<p>1. For buildings built before 31 December 2020, the building has at least an Energy Performance Certificate (EPC) class A.</p> <p>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 2020 and at least distinguishes between residential and non-residential buildings.</p> <p>2. For buildings built after 31 December 2020, the building meets the criteria specified in Section 7.1 of this Annex that are relevant at the time of the acquisition.</p>		

Highlights of Chapter 7 Construction & Real Estate in Annex 1

Annex 1: Reference	Technical Screen Criteria	Netherlands
7.1 Construction of New Buildings	<p>The Primary Energy Demand (PED), defining the energy performance of the building resulting from the construction, is at least 10 % lower than the threshold set for the nearly zero-energy building (NZEB) requirements in national measures implementing Directive 2010/31/EU of the European Parliament and of the Council.</p> <p>The energy performance is certified using an as built Energy Performance Certificate (EPC).</p>	<ul style="list-style-type: none"> The Dutch building code already enforces strict and energy efficient construction standards, as BENG2 indicator is directly related to the prime energy demand, (this is not yet the case in all member states) by directly enforcing the PED with a threshold of 50kWh /m2. If we apply the 10 % lower than the national threshold directly on the BENG2 indicator for the Dutch building code, this would result in a threshold of 45 kWh/m² to qualify. Currently this is not actively checked (digitalized) yet as eligibility with the national building code is the leading indicator for financing the new construction. Other BENG indicators, such as BENG3 (the share of renewables), which in the Netherlands traditionally has been an pillar for “sustainability” is not taken into account.
7.2 Renovation of Existing Buildings	<p>The building renovation complies with the applicable requirements for major renovations.</p> <p>Alternatively, it leads to a reduction of primary energy demand (PED) of at least 30 %.</p>	<ul style="list-style-type: none"> In most cases when a (sustainability) renovation is undertaken, it is a combination of all possible measures and not explicitly (only) reducing prime energy demand but including e.g. solar panels. If following the renovation an EPC is composed, this will be based on the NTA 8800 methodology and will contain information on the PED and the amount of renewable energy after the renovation. However, to demonstrate the 30% improvement, what should be taken as the base (situation before the renovation)? Current EPCs contain a letter for the overall building and thus the necessary data will not be present. With an average cost of an NTA 8800 EPC, we run the risk that retail clients should pay twice for the energy label (pre and post renovation) which typically costs between €300 - €400 per report. With the current regulation it would be needed to look past the energy label and look into the actual reduction kWh/m² and precisely track the ex post & ex ante energy demand per dwelling. The retails offerings and data mortgage servicing stream should be adopted. Like wise back office adjustments need to track collateral level taxonomy eligibility.
7.7 Acquisition and ownership of buildings	<p>1. For buildings built before 31 December 2020, the building has at least an Energy Performance Certificate (EPC) class A.</p> <p>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 2020 and at least distinguishes between residential and non-residential buildings.</p> <p>2. For buildings built after 31 December 2020, the building meets the criteria specified in Section 7.1 of this Annex that are relevant at the time of the acquisition.</p>	<ul style="list-style-type: none"> Systems should adequately track, not only the energy label, but also its validity period, methodology and prime energy demand, through time. As over 22.5% of the building stock in the Netherlands has a valid energy label A, it is interesting to create a study what this entails in terms of the national distribution of the housing stock in terms of prime energy demand. This study could give an overview of the (dynamic) insight into the compliant headroom for PED designations. This would answer the question (through time): “at which level of kWh/m² in terms of PED, does one meet the top 15% cut”? A strategy should be created for clear and updated retail communication on energy efficiency financing. Existing class A mortgages could be less efficient, though EU Taxonomy eligible, whereas new constructed buildings in line with BENG (threshold of 50kWh /m2) are not. This can potentially result in an inefficient allocation (w.r.t ambition NCEP / Green Deal ambition) of taxonomy compliant mortgages.

Energy labels: Old vs New

Old vs New.

The left screenshot depicts a valid (until 2029) energy label. The old method did not list the primary energy demand in the document. The two screenshots on the right, depict energy labels based on the new methodology (the highlighted yellow parts depict the prime energy demand).

Energie label woning

Lumièrestraat 54
1057KH Amsterdam
BAG-ID: 039300001R2991

Energie label A

Registratienummer: 296456000
Datum van registratie: 10-06-2020
Geldig tot: 10-06-2029

Veel besparingsmogelijkheden
Weinig besparingsmogelijkheden

Overzicht woningkenmerken

Kenmerk	Waarde
1. Woningtype	Rijwoning niet op een hoek
2. Bouwperiode	2000 t/m 2019
3. Woonoppervlakte	121 t/m 140 m²
4. Glas woonruimte(s)	HR glas
5. Glas slaapruiimte(s)	HR glas
6. Gevelisolatie	Gevel niet extra geïsoleerd
7. Dakisolatie	Dak niet extra geïsoleerd
8. Vloerisolatie	Vloer niet extra geïsoleerd
9. Verwarming	Individuele CV-ketel, geïnstalleerd in of na 1998
10. Aparte warmtapwaterverwarming	Geen apart toestel
11. Zonnepanelen	Geen zonnepanelen en geen zonnecollector
12. Ventilatie	Geen balansventilatie

Wilt u besparen op uw energierekening? Overweeg dan de volgende mogelijke maatregelen:

Een zonnecollector voor het verwarmen van uw tapwater
Zonnepanelen voor het opwekken van elektriciteit

Goedgekeurd door:

Naam: Gerard van Burenveld
BAG-nummer: 1765568
3005399

Algegeven conform de regeling energierekening
gebouwen, welke onderdeel is van de Europese richtlijn EPBD

Dit energie label is afgegeven door Rijksoverheid voor Nederland.
Dit energie label kunt u altijd bekijken op www.energiekeuzevoorwoningen.nl of www.energiekeuzevoorwoningen.nl/energiekeuze-je-energiekeuze/.

Deelname
De energie label bevat maatregelen om de energierekening van uw woning te verkleinen. De maatregelen die op dit energie label genoemd worden zijn maatregelen die op dit moment kostenloos zijn of die van een verwachting bestaan dat de energierekening van het energie label worden, gebouwen op een gemiddeld energieniveau van de woning.
Als u uw gebouw afkeert van het gemiddeld gebruik binnen de energierekening zoals vermeld op dit energie label, afgeven.

Energie label woningen

Registratienummer: 123456789
Datum registratie: 21-06-2021
Geldig tot: 21-06-2031
Status: Definitief

Deze woning heeft energielabel A+++

Isolatie

Isolatie	Waarde
1. Gevels	++
2. Gevelpanelen	++
3. Dak	++
4. Vloeren	++
5. Ramen	++
6. Buitendeuren	++

Installaties

Installaties	Waarde
7. Verwarming	Warmtepomp
8. Warm water	Warmtepomp
9. Zonnecollector	Aanwezig
10. Ventilatie	Natuurlijke toevoer en mechanische afzuiging
11. Koeling	Aanwezig
12. Zonnepanelen	Aanwezig

Deze woning wordt verwarmd via een aardgas aansluiting

Warmtebehoefte in de wintermaanden
Laag

Risico op hoge binnentemperaturen in de zomermaanden
Laag

Aandeel hernieuwbare energie
51,0 %

Over deze woning

Adres: Waterschans van den Bergstraat 148
6599 ZZ Heerlen
BAG-ID: 01180100207008

Opnamedetails

Naam: Pieter Hendrik van Leeuwen
Examennummer: 99999

Certificat houder
Janssen-De Vries Energielabelcertificaten en inspecties B.V.

Inschrijfnr
12345678

KVK-nummer
553087330109

Certificerende instelling
Energielabelcertificerende instelling b.v.

Soort opname
Detailopname

Energie label woningen

2 van 11

Toelichting bij dit energielabel

Voor uw woning is het energielabel bepaald. Dit label geeft aan hoe energiezuinig uw woning is. Hierbij is gekeken naar de isolatie van de woning en naar de installaties die nodig zijn voor verwarming, koeling, warm water en ventilatie.

Hoe minder fossiele energie uw woning gebruikt, hoe beter uw energielabel. Hierbij is G het slechtste energielabel en A+++ het beste. Fossiele energie komt van kolen, olie en aardgas. Uw woning gebruikt 10,0 kWh/m² fossiele energie per jaar. Dit komt overeen met 10,0 kg CO₂/m² per jaar. De hoeveelheid fossiele energie die uw woning gebruikt, hangt af van de isolatie, de aanwezige installaties en de compactheid van uw woning. Hoe compacter een woning is, des te lager is de waarde voor de compactheid. Een compacte woning heeft relatief weinig buitenmuren en verliest daardoor minder energie. Het gebruik van hernieuwbare energie – denk aan zonnepanelen, zonnecollectoren en warmtepompen – vermindert ook de fossiele energie die u nodig hebt. Isolatie en hernieuwbare energie zijn nodig voor de transitie naar een duurzame gebouwde omgeving tot 2050. Heeft u nog een aardgas aansluiting voor verwarming van uw woning, dan moet u zich voorbereiden op deze overgang. Op dit energielabel vindt u adviezen hoe u dit kunt doen.

G F E D C B A A+ A++ A+++

Hoe is het energielabel berekend? Hierbij is uitgegaan van een gemiddeld aantal bewoners, gemiddeld bewonersgedrag en het gemiddelde Nederlandse klimaat. Het energieverbruik voor huishoudelijke apparatuur – zoals tv, wasmachine en koelkast – telt niet mee. Dit is omdat het energielabel alleen gaat over hoe energiezuinig de woning zelf is. Het energieverbruik op het energielabel is daarom niet hetzelfde als het elektriciteitsverbruik op uw energierekening.

Warmtebehoefte in de wintermaanden

De warmtebehoefte is de hoeveelheid warmte die de verwarmingsinstallatie of het verwarmingsnet gemiddeld per jaar aan uw woning moet leveren voor een comfortabel binnenklimaat. Een woning die goed geïsoleerd en lichtdicht is, en een energiezuinig ventilatiesysteem heeft, heeft een lage warmtebehoefte. De warmtebehoefte van uw woning is 10,0 kWh per vierkante meter vloeroppervlakte.

Risico op hoge binnentemperaturen in de zomermaanden

Het risico op hoge binnentemperaturen in uw woning in de zomermaanden is 'laag'. Maatregelen zoals buitenzonwering, zonwerende beglazing en dakisolatie beperken het risico op hoge binnentemperaturen.

Aandeel hernieuwbare energie

Het aandeel hernieuwbare energie dat u bent voor uw woning, is 51,0%. Hernieuwbare energie is afkomstig uit zon, biomassa, buitenlucht en bodem. Zonnepanelen, zonnecollectoren, warmtepompen en biomassa ketels vergroten het aandeel hernieuwbare energie.

Indicatie energierekening

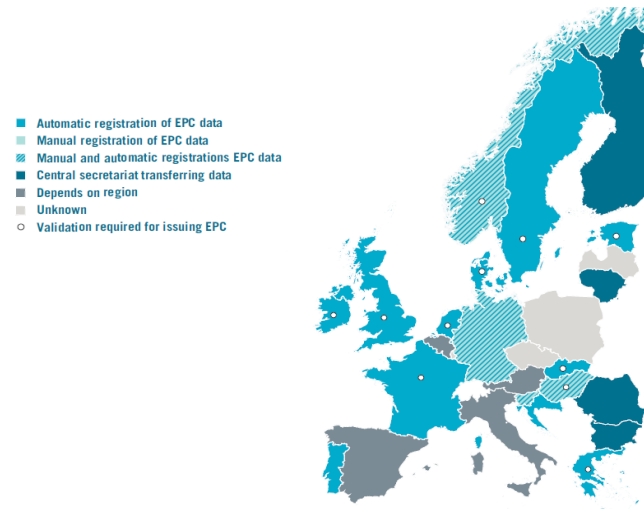
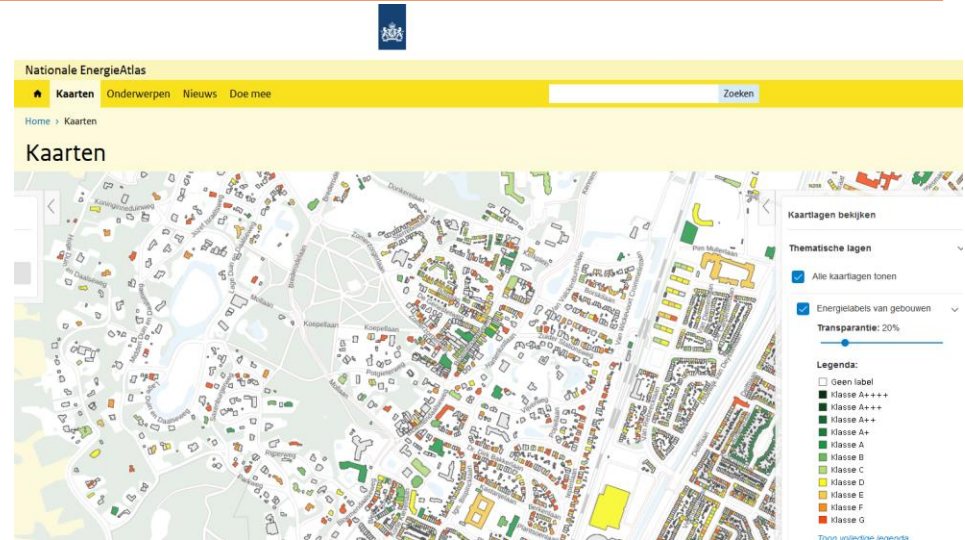
Onderstaande tabel geeft een indicatie van de energierekening per maand, gebaseerd op vergelijkbare woningen in Nederland. Uw energierekening wordt beïnvloed door de energiezuinigheid van de woning ook door uw gedrag beïnvloed. Als u de verwarming veel aan hebt staan, veel warm water gebruikt en veel elektrische apparatuur in gebruik heeft, dan is uw energierekening hoger. Er is in de tabel daarom onderscheid gemaakt in laag, gemiddeld en hoog.

	G	F	E	D	C	B	A	A+	A++	A+++
Laag	€115	€110	€105	€100	€90	€80	€75	€70	€65	€60
Gemiddeld	€170	€165	€160	€155	€140	€130	€120	€110	€105	€100
Hoog	€250	€240	€235	€225	€205	€190	€175	€165	€160	€150

Energy label Availability

Availability EPC's

- Throughout Europe there is a big difference in the availability of EPC's.
- There are some differences among the EU member states that should be kept in consideration:
 - **Bodies in charge of expert accreditation:** Governmental, third parties, professional associations, etc.
 - **Methodology:** for instance if on-site visits are required and differing calculation methods
 - **Validity:** Period of validity
 - **Data Administration:** How EPC data is updated: manual vs. automatic.
 - **Accessibility:** public access vs limited access.
 - **Format:** paper, digital, PDF, Excel
- Approx. 50% of the housing stock in the Netherlands has an energy label. From the remainder a (less reliable) hedonic EPC is available.
- In the Netherlands this information is easily available for free, for everyone



EU Taxonomy Policy Considerations

- **Access to capital markets:** the Dutch mortgage market is reliant upon capital market funding (i.e. the funds that a bank must attract by issuing financial capital market instruments (such as Covered Bonds, RMBS, Whole loan portfolio funding). In addition, more than 25% of the mortgages in the Netherlands are originated via **non-banks** and are **entirely funded via the capital markets**.
- **Focus on eligible investments:** In theory a new building with a prime energy demand of 50 kWh/m is taxonomy **ineligible** according to **Dutch** standards, however a new building with an identical primary energy demand can be **eligible in a neighbouring country**. This could have an influence on capital market instruments in terms of EU Taxonomy eligibility (Covered Bond & Securitisation).
- **Dutch banks committed to Paris Agreement:** the financial sector committed itself to a) participate in the financing of the energy transition, b) report on the progress in reducing CO2 emissions, c) agree and publish CO2 emission reduction targets for 2030 for all their relevant assets and investments.

...level playing field: a different starting position

- As described in the EPBD & NZEB directives: member states may take into account country-specific climate conditions, primary energy factors, ambition levels, calculation methodologies and building traditions.
- The existing distribution of the building stock in terms of energy efficiency also differ greatly per country. For instance: In excess of 22.5% of the residential buildings in the Netherlands possess energy label A, compared to 2 ~3 % in Spain.
- Average energy usage differs per country to give an example, the Horizon 2020 iBroad published gives the following average residential energy consumption across Europe: BE Flanders (293 kWh/m²), DE (145,3 kWh/m²), SE (188 kWh/m²)
- Not this all countries have implemented the NZEB and EPBD in the applicable building code (regulation) in a way that is tied to directly prime energy demand yet.
- It should be noted that in most countries energy labels are not publicly accessible and free for stakeholders (consumers, regulators, researchers and investors).

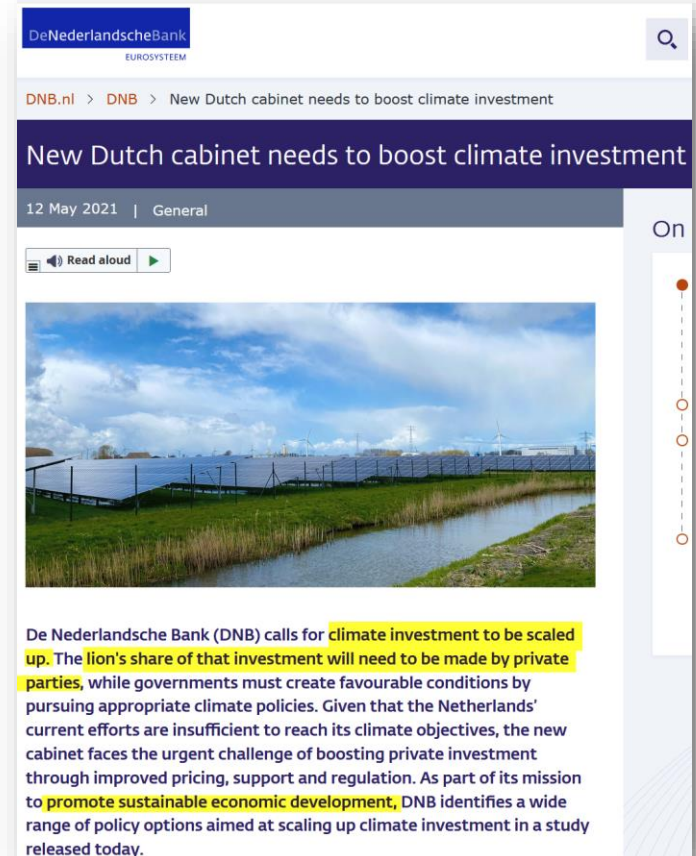
The EU Taxonomy Eligible Housing Stock

The criteria applicable to the real estate and construction market is not static.

- **Exogenous dynamics:** Technical screening criteria change (will be reviewed once every 3 years), NZEB and EPBD criteria or national building requirements change.
- **Endogenous dynamics:** the building stock will evolve, criteria will tighten and both the primary energy demand distribution (percentiles) and energy label distribution will change over time. Also energy labels will become invalid after 10 years. Also the building stock in its totality will increase in the Netherlands (*1 miljoen nieuwe woningen*).
- **Feedback loop:** as by the EU taxonomy the threshold applicable should be 10% stricter than the national norm.
- **Accelerate investments in renovation:** DNB (Dutch central bank) advocates a scale-up and acceleration of climate related (amongst others in energy efficiency) investments.

Continuous monitoring

- As over 22.5% of the building stock in the Netherlands has a valid energy label A, it is interesting to create a study what this entails in terms of the national distribution of the housing stock in terms of prime energy demand.
- This study could give an overview of the (dynamic) insight into the compliant headroom for PED designations. This would answer the question (through time): "at which level of kWh/m² in terms of PED, does one meet the top 15% cut?"
- Alignment on retail products and capital market products (EEML Covered Bond & HTT, Securitisation).



Conclusion & Next Steps

Conclusion:

- **We welcome the EU taxonomy:** as it gives a clear and precise meaning of energy efficiency and sustainable activities.
- In this presentation we give an overview of the relevant screening criteria and how these could play out in the current conducts of Dutch mortgage origination.
- The Energy Efficient Mortgages hub for the Netherlands can play a role in facilitating the interpretation as a knowledge network.
- Key observations from the Annex 1 screening criteria:
 - **Establish interpretation on a national level** (for instance how to go about renovation)
 - **Data challenge**
 - **Ensuring a level playing field** (especially in capital markets)
 - **Maintaining (EU Taxonomy compliant) eligible housing stock**

To this end we propose to establish a national framework for taxonomy compliant best practices for Dutch Energy Efficient mortgages.

In the mean time:

- We are writing a white paper where we give an overview of the Dutch mortgage market and where further alignment and clarification might be needed in light of the EU taxonomy
- Created a website www.energyefficientmortgages.nl

...Items for further investigation:

- Possibility of employing Annex 2: the Climate Change Adaptation screen criteria.
- Possibility to use items 7.3, 7.4, 7.5, 7.6 of Annex 1: the Climate Change Mitigation screen criteria as a retail products towards consumers.
- DHS (do-no-significant) criteria from a data perspective
- Alignment with EEML / HTT
- Forthcoming EU Green bond standard
- Forthcoming EBA green securitisation framework.

