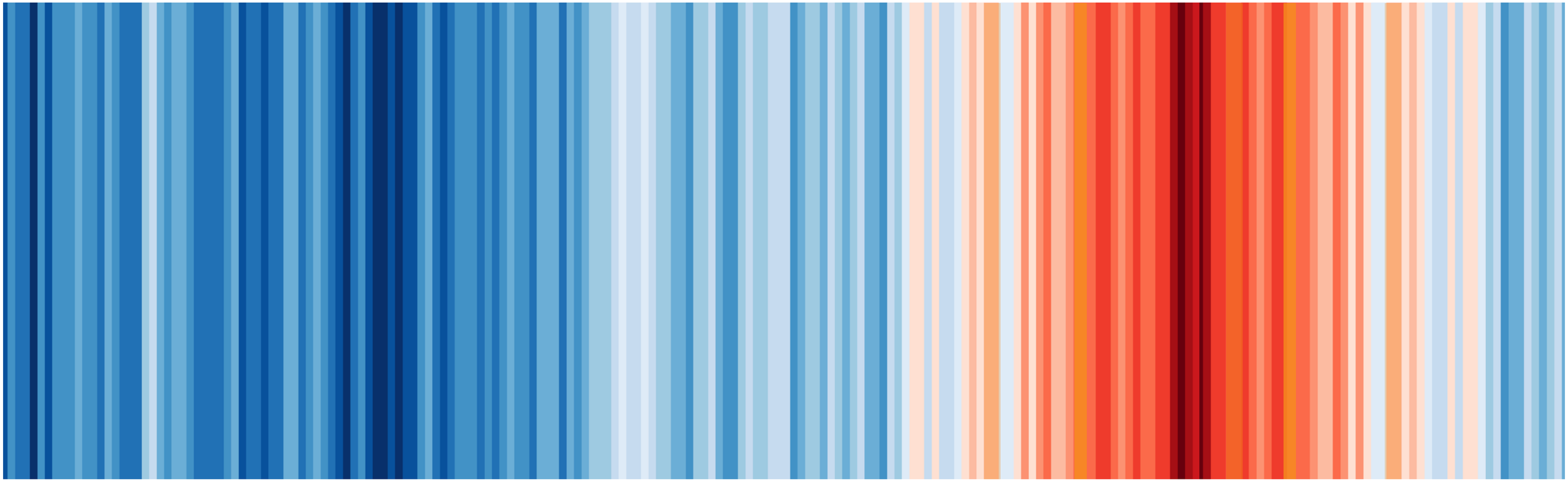
CARBONLAB

timeline of environmental legislation



TIMELINE

of environmental legislation for the construction industry

2000 | 2005 | 2010 | 2015 | 2020 | 2025 | **2030** | 2035 | 2040 | 2045 | **2050**

International

- **2000** IN4 — Millenium Development Goals
- **2001** IN5 — Aarhus Convention
- **2005** IN2 — Kyoto Protocol
- **2008** IN2 — ~5% reduction 2008-2012
- **2012** IN2 — ~18% reduction 2012-2020
- **2015** IN1 — Paris Climate Agreement
- **2016** IN4 — Sustainable Development Goals
- **2021** IN4 — Glasgow Climate Pact
- **2022** IN6 — Inflation Reduction Act
- **2023** IN7 — Toronto max CO_2 /m²
- **2030** IN6 — U.S. emissions reduction by 50%
- **2040-2045** IN6 — US advised to reach net-zero emissions
- **2050** IN1 — global warming below 2°C and towards 1.5°C
- **2050** IN6 — US net-zero emissions

European Union

- **2000** EU7 — Water Framework Directive (WFD / KRW)
- **2002** EU3 — EPBD
- **2004** EU7 — Natura 2000
- **2005** EU2 — ETS energy
- **2009** EU3 — Renewable Energy Directive (RED)
- **2010** EU3 — EPBD II
- **2010** EU04 — Europe 2020
- **2012** EU2 — ETS industry
- **2012** EU3 — Energy Efficiency Directive (EED)
- **2015** EU7 — WFD / KRW groundwater
- **2019** EU1 — EU Green Deal
- **2019** EU6 — EU Taxonomy
- **2020** EU3 — EPBD III
- **2021** EU1 — Fit for 55
- **2021** EU6 — CSRD
- **2022** EU5 — LCA requirements
- **2023** EU6 — EU Green Bond Standard
- **2023** EU7 — Nature Restoration Law
- **2023** EU8 — Denmark, France max CO_2 /m² /year
- **2024** EU6 — CSRD required
- **2025** EU8 — Sweden max CO_2 /m²
- **2026** EU2 — start CBAM pricing
- **2027** EU7 — KRW goals
- **2028** EU2 — ETS II buildings into effect
- **2030** EU1 — EU emissions reduction by 55%
- **2030** EU1 — all new buildings zero-emissions and solar installations
- **2030** EU2 — ETS II cap: 43%
- **2030** EU7 — after 2030 no net loss of green urban space
- **2034** EU2 — ETS I no free allowances
- **2034** EU1 — 25% existing non-residential buildings zero-emissions
- **2040** EU2 — ETS I & CBAM at net-zero
- **2040-2045** EU1 — EU advised to reach net-zero emissions
- **2050** EU1 — EU climate neutral
- **2050** EU1 — EU 100% circular
- **2050** EU1 — all buildings net-zero
- **2050** EU7 — urban greenspace incr. by 5%

National

- **2005** NL3 — EPC < 0,8
- **2008** NL3 — energy label required
- **2008** NL5 — Energiebesparingsplicht
- **2012** NL3 — MPG required
- **2012** NL6 — Natuur Netwerk Nederland
- **2013** NL4 — Energieakkoord
- **2015** NL3 — EPC < 0,4
- **2015** NL6 — Progr. Aanpak Stikstof (PAS)
- **2018** NL3 — MPG max 1,0
- **2018** NL4 — Nieuwbouw Aardgasvrij
- **2018** NL8 — betonakkoord
- **2019** NL1 — Klimaatakkoord
- **2019** NL5 — Informatieplicht
- **2021** NL3 — MPG max 0,8
- **2021** NL3 — BENG
- **2021** NL6 — wet Stikstofreductie
- **2023** NL3 — energy label C office buildings
- **2024** NL2 — Omgevingswet
- **2024** NL10 — Wet Betaalbare Huur
- **2025** NL3 — MPG max 0,5?
- **2025** NL9 — GWPa indicator?
- **2025** NL6 — 40% N2000 healthy NO_x
- **2030** NL1 — 1,5 million homes renovated
- **2030** NL7 — all public tenders circular
- **2030** NL1 — 50% reduction in raw material consumption
- **2030** NL6 — 75% NO_x reduction of heavy machinery
- **2030** NL6 — 50% of Natura 2000 require healthy NO_x levels
- **2035** NL6 — 74% of Natura 2000 require healthy NO_x levels
- **2050** NL1 — all homes renovated
- **2050** NL1 — a waste-free economy
- **2050** NL1 — Netherlands 100% climate-neutral

Local

- **2021** LO4 — Convenant Houtbouw MRA
- **2023** LO5 — Tilburg watercollection required
- **2023** LO3 — Utrecht Carbon-price of €875/ton CO_2
- **2023** LO3 — Amsterdam Carbon-price of €418/ton CO_2
- **2025** LO1 — Amsterdam 50% circular
- **2030** LO2 — Rotterdam, Utrecht, Den Haag, Eindhoven 50% circular building
- **2050** LO2 — Amsterdam, Rotterdam, Utrecht, Den Haag, Eindhoven 100% Circular building

» legenda:

- **BINDING** regulation or directive
- **GOAL** targets of the regulations
- **NON-BINDING** recommendation or policy

» last updated on17-08-2023

INTERNATIONAL CLIMATE LEGISLATION 1 / 2

Elaboration on the legislation and goals of the timeline

IN1 - Paris Climate Agreement

The Paris Agreement (2015) is an international treaty on climate change adopted by 196 parties. Its goal is to limit global warming to well below 2°, preferably to 1.5° Celsius, compared to pre-industrial levels (1880). Human-induced warming resulted approximately in 1°C above pre-industrial levels in 2017.

» https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

IN2 - Kyoto Protocol

The Kyoto Protocol (2005) set binding emission reduction targets of 7% between 2008-2012 and 18% between 2013 to 2020 compared to 1990 levels. It was signed by most industrialised countries.

» https://unfccc.int/kyoto_protocol

IN3 - Glasgow Climate Pact

This climate pact from 2021 is the first climate agreement explicitly planning to reduce global coal usage.

The pact also contained a commitment to 'climate finance' developing countries.

» https://ukcop26.org/the-glasgow-climate-pact/

IN4 - Sustainable Development Goals (SDGs)

The SDGs are a collection of 17 objectives designed as a "shared blueprint for peace and prosperity for people and the planet now and into the future". The SDGs are a follow-up of the Millenium Goals (2000).

» https://sdgs.un.org/

IN5 - Aarhus Convention

The Convention, in force since 30 October 2001, aims to increase public awareness and involvement in environmental matters. It states that citizens have the right to receive environmental information held by public authorities. It also provides for the right for citizens to participate in plans, programmes, policies and legislation effecting the environment.

It has binding consequences for involved parties. This includes the EU and the Netherlands.

» https://unece.org/environment-policy/public-participation/aarhus-convention/text
» https://environment.ec.europa.eu/law-and-governance/aarhus_en

INTERNATIONAL CLIMATE LEGISLATION 2 / 2

Elaboration on the legislation and goals of the timeline

IN6 - Inflation Reduction Act

The Inflation Reduction Act passed in the United Stated in 2022 in support of $369 billion in climate investments, aiming for cutting emissions in half by 2030 and reaching Net-Zero in 2050.

In contrast to the regulatory approach of the European Green Deal the Inflation Reduction Act mainly subsidizes sustainable efforts.

» https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/

IN7 - Toronto max CO_2 /m^2

Toronto now has an embodied emissions cap on the built environment according to the revision of the Toronto Green Standard Version 4. This is measured in kg CO_2/m^2: the maximum allowed embodied CO_2 emissions per m^2 in buildings. It contains 3 tiers; Tier 1 is a mandatory baseline level, and tier 2 & 3 are voluntary but have financial incentives attached.

Within tier 1 the emission cap for low density residential is 200kg CO_2/m^2, mid-to-high density residential is 500kg CO_2/m^2 and commercial 400kg CO_2/m^2. See link below for other tiers:

» https://www.toronto.ca/legdocs/mmis/2023/ph/bgrd/backgroundfile-235868.pdf

EUROPEAN CLIMATE LEGISLATION 1 / 3

Elaboration on the legislation and goals of the timeline

EU1 - The European Green Deal

The European Green Deal (2019) is a binding set of policies/initiatives across the EU towards net zero GHG-emissions by 2050 and setting goals for 2030.

» https://europeanclimate.org/the-european-green-deal/

Fit for 55

Fit for 55(2021) increases the ambitions by aiming for emission-reductions of 55% by 2030 compared to 1990 levels. It states the following:

Zero emission:

- 2028 - all new buildings by public bodies zero operational emission
- 2030 - all new buildings zero emiss.
- 2030 - 15% existing non-res buildings zero emissions
- 2034 - 25% existing non-res buildings zero emissions

2050 - all existing buildings should be transformed into zero emiss. buildings

Solar installation:

- 2027 - solar install. required for all new public and non-res buildings
- 2028 - solar install. req. for all existing buildings and non-res buildings undergoing renovation
- 2030 - all new residential buildings require a solar installation

» https://www.consilium.europa.eu/en/press/press-releases/2022/10/25/fit-for-55-council-agrees-on-stricter-rules-for-energy-performance-of-buildings/

EU2 - Emission Trading System (ETS)

A 'cap' on the emissions that can be emitted by companies. Within the cap, companies receive or buy emission allowances, which they can trade. The cap decreases every year, ensuring a decrease in emissions. ETS I is aiming for 0 emissions in 2040. As of august 2023 the ETS I price is ~90€/ton CO_2.

In 2024 ETS II will be launched. It encompasses the fuel suppliers for buildings and transport sector. ETS II will apply to commercial buildings in 2025 and to residential buildings in 2029. The ETS II cap will be at 43% in 2030 (thus the allowed emissions in the building industry will be 43% compared to 2005 levels).

» https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/development-eu-ets-2005-2020_en
» https://www.europarl.europa.eu/legislative-train/package-fit-for-55/file-revision-of-the-eu-emission-trading-system-(ets)

EU3 - Energy Efficiency Directive

First adopted in 2012, the directive was updated in 2018 and 2023. It states that EU countries must achieve an annual saving of 1.3% of final energy consumption by 2024, rising to 1.9% by 2028.

» https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-directive_en

EU3 - Energy Performance of Buildings Directive (EPBDIII)

European Directive to lower energy consumption and CO_2-emissions for buildings, updated in 2022, with the Klimaatwet, direct origin for BENG.

» https://epb.center/epb-standards/energy-performance-buildings-directive-epbd

EUROPEAN CLIMATE LEGISLATION 2 / 3

Elaboration on the legislation and goals of the timeline

EU3 - Nearly Zero-Energy Building (NZEB) / Bijna Energie-Neutrale Gebouwen (BENG)

All new buildings must meet the requirements for BENG from 1 January 2021. This applies to both residential and commercial buildings. The new energy-indicators are:
1. total energy consumption
2. primary fossil-energy consump.
3. renewable energy consump.

» https://www.rvo.nl/onderwerpen/wetten-en-regels-gebouwen/beng

EU4 - Renewable Energy Directive

The share of renewable energy sources in energy consumption has increased from 12% in 2010 to 22% in 2021. To meet the higher climate ambition the renewable energy target for 2030 is set at 42.5%. This includes concrete goals for solar installations in the built environment. (EU1)

» https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive_en

EU4 - Europe 2020

A 10-year strategy (2010-2020) to reduce GHG-emissions by 20%, to increase the share of renewable energy by 20% and to increase energy efficiency by 20% (20-20-20 goals). The goals were achieved (GHG-emissions were even 31% lower in 2020 compared to 1990). The required 55% reduction in 2030(EU1) requires additional measures the EEA states.

» https://www.eea.europa.eu/highlights/eu-achieves-20-20-20

EU5 - Life Cycle Assessment (LCA)

LCA (also known as Life Cycle Analysis) is a methodology for assessing environmental impacts associated with all the stages of the life cycle of a commercial product, process, or service.

It is required for all new building materials since 2022 giving us insight into their (environmental) performance.

» https://www.rivm.nl/en/life-cycle-assessment-lca/what-is-lca
» https://eplca.jrc.ec.europa.eu/lifecycleassessment.html

EU6 - EU taxonomy

The EU taxonomy regulation describes a framework to classify ‘green’ or ‘sustainable’ economic activities executed in the EU. Previously, there was no clear definition of green, sustainable economic activity. The EU taxonomy creates a framework for the concept of sustainability, exactly defining when a product, company or enterprise is operating sustainably.

» https://eu-taxonomy.info/info/eu-taxonomy-overview

EU6 - Corporate Sustainability Reporting Directive (CSRD)

The CSRD requires large companies to report annualy on their environmental impact according to an European reporting standard (ESRS). This includes rapporting on their impact on emissions, biodiversity, human rights, etc). Over the years the scope of covered companies and reporting requirements will be expanded.

Through this regulation it will become mandatory for many Real Estate companies to report on all relevant ESG-issues. This generates insight into their sustainability performance and could influence the company’s ability to attract capital.

» https://www2.deloitte.com/nl/nl/pages/real-estate/articles/csrd-booster-for-a-sustainable-real-estate-industry.html

EU6 - EU Green Bond Standard (EU GBS)

In general, this regulation introduces a ‘golden’ standard for Green Bonds (investments). It intends to ensure that ‘green bonds’ align with the EU’s environmental and climate objectives, as defined by the EU taxonomy. Therefore if a construction project wants to receive security through Green Bonds (a 2,8 trillion euro market) it must comply with the EU taxonomy. The EU GBS could become effective in the second half of 2024, early 2025.

» https://www.stibbe.com/publications-and-insights/the-eu-green-bond-standard

EUROPEAN CLIMATE LEGISLATION 3 / 3

Elaboration on the legislation and goals of the timeline

EU7 - Natura 2000

Natura 2000 is a European network of protected nature areas where certain species of animal and their natural habitats are protected to preserve biodiversity. The Netherlands has 162 Natura 2000 areas (see link below to map). Around these areas there are extra requirements regarding nitrogen (stikstof) and particulate (fijnstof) emission. (NL6)

» https://ec.europa.eu/environment/nature/natura2000/index_en.htm
» https://www.natura2000.nl/gebieden

EU7 - Nature Restoration Law

Passed in June 2023 this regulation is a key element of the EU Biodiversity Strategy and therefore the Green Deal (EU1). It is the first law making restoration targets legally binding. These are some of the targets: No net loss of green urban space by 2030, and an increase in the total area covered by green urban space by 2040 and 2050. (at least 5%). By 2050 cities are obligated to contain a minimum of 10% urban tree canopy cover.

» https://environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-law_en

EU7 - The Water Framework Directive (WFD)

This directive requires Member States to achieve 'good' status in all bodies of surface water and groundwater by 2027. Research indicates that the projected compliance rate in The Netherlands for regional water bodies by 2027 ranges between 35% - 65%. As current construction practices have significant impact on groundwater quality it is expected that this directive might limit future construction permits.

» https://environment.ec.europa.eu/topics/water/water-framework-directive_en
» https://open.overheid.nl/Details/oep-e99c9b1a0c081239e-1890420f86a8aa6671f5154/1

EU8 - Denmark, France max CO_2 /m² /year

Denmark and France now have an embodied emission cap for the built environment. This is measured in kg CO_2 /m² /year: the maximum allowed embodied CO2 emissions per m2 floor area per year of its total lifespan. (baseline = 50years) In Denmark the number is 12kg CO_2 /m² /yr and in France it's 12.8- 14,8 kg CO_2 /m² /yr.

» https://www.elov.dk/bygningsreglementet/paragraf/297/
» https://www.ecologie.gouv.fr/reglementation-environnementale-re2020

EU8 - Sweden max CO_2 /m²

Lastly Sweden also announced an embodied emission cap to go into effect in 2025, similarly to Toronto(IN7). Their max allowed embodied emissions range from ~125kg CO_2 /m² for single family housing till ~360kg CO_2 /m² for multi-dwelling blocks.

» https://www.boverket.se/en/start/publications/publications/2023/limit-values-for-climate-impact-from-buildings/

NATIONAL CLIMATE LEGISLATION 1 / 3

Elaboration on the legislation and goals of the timeline

NL1 - Klimaatakkoord (Dutch Climate Act)

Following the Paris Agreement (IN1) GHG-emissions in the NL must be reduced by 25% (compared to 1990 levels) in 2020, 49% by 2030, compared to 1990 levels, 95% reduction by 2050. The National Energy and Climate Plan (NECP) and the National Climate Agreement contain the policy and measures to achieve these climate goals.

In 2019 the Urgenda Foundation sued the Dutch government to require it to do more to prevent global climate change, resulting in binding goals for an emission reduction as stated above.

» https://www.government.nl/topics/climate-change/climate-policy/

NL2 - Omgevingswet (The Environment and Planning Act)

The Environment and Planning Act combines all laws and regulations for the physical living environment, including construction, environment, water, spatial planning, and nature.

It spans local-, national-, but also European Legislation. A lot of the laws mentioned will be merged and applied into the 'omgevingswet'. This includes the Water Act (EU7), Nature Conservation Act (EU7), EU ETS (EU2), European Energy Efficiency Directive (EU3), etc.

This entails drastic changes for matters like the development and redevelopment of real estate. The roll-out has been postponed for the 5th time till January 2024.

» https://www.government.nl/topics/spatial-planning-and-infrastructure/revision-of-environment-planning-laws

NL3 - MilieuPrestatie Gebouwen (MPG)

The environmental impact of the materials used in a building. It is mandatory with every application for an environmental permit. Has a direct influence on BENG (EU3).

» https://www.nieman.nl/specialismen/energie-en-duurzaamheid/milieu-prestatie-gebouwen-mpg/

NL3 - EnergiePrestatie Gebouwen (EPG)

The EPG is linked to the EPBD (EU3) and replaced the previous EPC calculation method. It is mandatory assessment method which indicates the total energy consumption on which buildings needs to comply.

» https://www.nen.nl/nta-8800-2023-nl-304951

NL3 - DuurzaamheidsPrestatie Gebouwen (DPG)

The DPG-method is a tool that shows the netto-enviromental impact of a building. It combines energy performance and the MPG. EPG + MPG = DPG.

» http://tki-kiem.nl/persbericht-dpg-nieuwe-standaard-integrale-milieukwaliteit-gebouwen/

NATIONAL CLIMATE LEGISLATION 2 / 3

Elaboration on the legislation and goals of the timeline

NL4 - Energieakkoord

An agreement made in 2013 setting ambitions for the energy consumption in the Netherlands in 2020. Some of the goals for the built environment were: Improve the energy label by two steps for 300.000 houses yearly, the rental houses of corporations should have at least energy label B and all new construction is almost energy-neutral from 2020 onwards. Although many industries achieved their goals, the built environment did not.

» https://www.ser.nl/nl/thema/energie-en-duurzaamheid/energieakkoord/domeinen/01

NL4 - Wet Voortgang Energietransitie (Wet Vet)

This piece of legislation from 2018 translates to the 'Progress Energy Transition Law'. It provides for amendments to the Electricity Act 1998 and Gas Act in order to facilitate the transition to sustainable energy. Among many other points the law stated that new buildings should be built without a connection to the natural gas network.

» https://www.klimaatakkoord.nl/binaries/klimaatakkoord/documenten/publicaties/2018/06/26/inputdocument-nieuw-bouw-aardgasvrij/Nieuwbouw+aardgasvrij+-+2018+06+26.pdf

NL5 - Energiebesparingsplicht (2008) & Informatieplicht (2019)

The 'energiebesparingsplicht' requires companies to implement energy-saving- or emission-avoiding measures that have a payback period of 5 years or less. The obligation applies to sites of companies that use 50,000 kWh of electricity or 25,000 m3 of natural gas per year. These companies are required to report on this through the 'Informatieplicht' every 4 years.

» https://www.rvo.nl/onderwerpen/energiebesparingsplicht-2023

NL6 - Natuurnetwerk Nederland (NNN) / National Ecological Network (NEN)

The National Ecological Network (NEN) is made up of existing and planned nature areas. It encompasses all dutch Natura 2000-, nature conservation- , nature-friendly agriculture land, and more.(EU7) Provincial authorities are responsible for the NEN.

» https://www.government.nl/topics/nature-and-biodiversity/national-ecological-network-nen

NL6 - Wet Stikstofreductie en Natuurverbetering (Nitrogen Reduction Law)

In 2025 40% of the nature around Natura 2000-gebieden require a healthy nitrogen level; in 2030 50% and in 2035 74%.

» https://www.aanpakstikstof.nl/actueel/nieuws/2022/12/16/structurele-stikstofaanpak-vastgesteld-en-in-uitvoering

NL6 - Programma Aanpak Stikstof (PAS)

Made in 2015. A program made by the Dutch government to follow European standards of the Natura 2000 areas. (EU7) In 2019 the permits were said to be unlawful which caused the Nitrogen Crisis halting 18.000 construction plans. The program was replaced by wet stikstofreductie en natuurverbetering (2021)

» https://www.aanpakstikstof.nl/de-stikstofaanpak

NL6 - Schone Lucht Akkoord (SLA)

Made in 2021. Among the many targets the construction sector needs a 75% reduction of emissions from mobile machines on construction sites in 2030. (which is currently 98% fossil fuel powered)

» https://www.schoneluchtakkoord.nl/thema/mobiele-werktuigen/

NATIONAL CLIMATE LEGISLATION 3 / 3

Elaboration on the legislation and goals of the timeline

NL7 - Public tenders in NL will be 100% circular

From 2030 onwards, all public tenders have ‘circularity’ as a mandatory part of the brief and contracts. Government needs to have a circular procurement in place and indicate a clear timeline for the implementation of this circular procurement. To this end, they will set up pilots and experiments to create a ‘learning environment’ for the distribution of acquired knowledge.

» https://hollandcircularhotspot.nl/wp-content/uploads/2019/09/Circular-Construction-Economy.pdf

NL8 - Betonakkoord (Concrete Agreement)

The ‘betonakkoord’ sets targets for the concrete industry in the coming years. In 2023 the emission of concrete should be reduced with 15-20%, the industry aims to be CO_2-neutral in 2030. Also 100% of the demolished concrete is brought back in new construction in 2030. The percentages should go up gradually in 2023, 2025 and 2027. The policy also encourages the production of reusable concrete elements. It was signed by 82 companies and public authorities.

» https://www.betonakkoord.nl/wp-content/uploads/sites/43/2023/05/Stand-van-zaken-Betonakkoord-april-2023.pdf

NL9 - GWPa indicator

Expected legislation indicating the maximum allowed embodied CO_2 emissions per m^2 in buildings.

In the Netherlands the CO_2 emissions of a project are calculated as part of a wide range of indicators in the MPG (NL3). As a result, a building with a large carbon footprint can still have a good MPG-score. Within this framework the reduction of carbon emissions associated with materials and processes throughout the lifecycle of a building are insufficiently accounted for.

Therefore, the DGBC, on behalf of ~200 organisations, promotes the introduction of a GWPa indicator alongside MPG to become mandatory for building applications. France, Denmark and Finland already have such indicators in place, and the EU is preparing overall legislation as well. Below is a link to a letter to the Dutch minister calling for a GWPa indicator.

» https://www.dgbc.nl/nieuws/oproep-aan-de-jonge-kom-met-een-co2-eis-voor-de-bouw-6623
» https://carbonbaseddesign.nl/
»

NL10 - Wet Betaalbare Huur

This legislative proposal aims to make the rental market more affordable and sustainable. It does so by expanding the Woningwaarderingsstelsel (WWS) into the modal segment of the rental market. The WWS regulates rental prices based on points, where more points correspond to higher rents. Under this proposal, properties with 186 points or less will be subject to ‘rent protection’. Additionally, property with a better energy label will receive more points and property with a lower energy label will receive fewer (or negative) points. Despite good intentions it is questionable if the law will pass as there are many problems with its current form.

» https://www.rijksoverheid.nl/actueel/nieuws/2023/02/27/wet-betaalbare-huur-maakt-eind-aan-te-hoge-huren

LOCAL CLIMATE LEGISLATION 1 / 2

Elaboration on the legislation and goals of the timeline

LO1 - Circularity Amsterdam

From 2023, the City of Amsterdam will implement circular criteria in the development of buildings and public spaces through its procurement and tender policies, including land allocation tenders. From 2025, 50% of all renovations and building maintenance activities in Amsterdam will follow the principles of circular construction. This will apply to the existing social and private housing stock, public real estate, schools, utility buildings and public spaces.

» https://assets.amsterdam.nl/publish/pages/867635/amsterdam-circular-2020-2025_strategy.pdf
» https://www.metabolic.nl/wp-content/uploads/2019/02/roadmap_circular_land_tendering.pdf

LO2 - Rotterdam, Utrecht, Den Haag, Eindhoven 50% circular building in 2030

Municipalities are working on the strategies to transition to circular building. Defined legislations are still in process but there are expected directions: taxing construction materials instead of labour, using circular tenders, requiring material passports, lowering/changing the MPG and using HNN (Het Nieuwe Normaal) as a standard for measuring circularity.

» https://rotterdamcirculair.nl/wp-content/uploads/2018/11/GemeenteRotterdam_Report_English_15-11-18.pdf
» https://utrecht.bestuurlijkeinformatie.nl/Document/View/e5d5a300-fe75-4528-88da-4799053c22b8
» https://www.cirkelstad.nl/cirkelsteden/eindhoven/
» https://www.cirkelstad.nl/het-nieuwe-normaal/

LO3 - True pricing Utrecht & Amsterdam

Province of Utrecht announced a first attempt at true pricing in 2023. They hold an internal calculation price of €875/ton CO_2-emissions which is now included in policy considerations and choices. Since June 2023 the municipality of Amsterdam set their internal CO_2-price at €418 when weighing various investments.

» https://www.provincie-utrecht.nl/actueel/nieuws/provincie-utrecht-gebruikt-als-eerste-overheid-nederland-een-eerlijke-co2-prijs
» https://www.linkedin.com/posts/green-office-van-gemeente-amsterdam_amsterdam-neemt-als-eerste-gemeente-het-initiatief-activity-7069615418063089664-UaBK

LO4 - Green deal convenant Houtbouw

This agreement was signed by local governments, knowledge institutes and market parties in 2018. It states that by 2025, 20% of housing production in the Amsterdam Metropolitan Area (MRA) will be made of wood and other bio-based materials.

» https://www.metropoolregioamsterdam.nl/houtbouw/

LOCAL CLIMATE LEGISLATION 2 / 2

Elaboration on the legislation and goals of the timeline

LO5 - Tilburg rainwater collection required

Municipality of Tilburg requires to integrate rainwater collection facilities into every new construction project. It is the first municipality to have binding regulations for water collection. Connecting rainwater to the sewer is no longer allowed, the rainwater must be collected on site. The municipality mentions underground basins and infiltration systems as possible means of collection.

» https://fd.nl/bedrijfsleven/1467552/bouwen-in-tilburg-dan-is-een-systeem-voor-de-opvang-van-regenwater-voortaan-verplicht

LO6 - Rotterdam omgevingsvisie

This document is the local implementation of the Environment and Planning Act (NL2). It contains the vision and aims for what Rotterdam will/should look like in the next few decades.

It describes how Rotterdam aims for 'good growth' along 5 principles:

- compact
- sustainable
- productive
- inclusive
- healthy

» https://www.rotterdam.nl/omgevingsvisie

DISCLAIMER

NL: We delen dit overzicht en roepen iedereen met wie we het delen op om hetzelfde te doen. Dus voel je vrij om het in interne en externe gesprekken te gebruiken, maar dan graag met vermelding GROUP A - CARBONLAB.

Dit onderzoek omvat onze huidige stand van zaken en is wellicht niet compleet of helemaal correct. Mocht er informatie ontbreken of incorrect zijn dan horen we het graag en passen het aan.

EN: We are sharing this overview and calling on everyone we share it with to do the same. So feel free to use it in internal and external conversations, but please credit GROUP A - CARBONLAB.

This survey covers our current state of affairs and may not be complete or entirely accurate. If any information is missing or incorrect we would be happy to hear about it and make adjustments.