The draft National Building Renovation Plan of Denmark

8 December 2025

Indholdsfortegnelse

Introduction

The following is Denmark's draft National Building Renovation Plan (draft NBRP) of 8 December 2026. The draft NBRP serves as Denmark's fulfilment of the reporting and notification responsibilities in accordance with Article 3 of Directive (EU) 2024/1275 of the European Parliament and of the Council of 24 April 2024 on the energy performance of buildings (EPBD). Article 3 stipulates that each Member State shall establish a national building renovation plan to ensure the renovation of the national stock of residential and non-residential buildings, both public and private, into a highly energy-efficient and decarbonised building stock by 2050, with the objective to transform existing buildings into Zero-Emission Buildings (ZEB).

A public hearing of the draft NBRP was conducted on the 8 December 2025 until 13 January 2026. For more information on this process, see Appendix 1 (to be included after the public consulation).

The following paragraphs on background highlights the Danish Government's policies on climate and energy and briefly describes the relevant political agreements and legislation which the draft NBRP is based on. This will serve as reference throughout the draft NBRP.

The draft NBRP builds upon the previously submitted Danish National Energy and Climate Plans (NECP) in accordance with EU regulation 2018/1999 of 11 December 2018 on the Governance of the Energy Union and Climate Action. The draft NBRP will therefore refer to specific sections and paragraphs in the NECP, when relevant.

The draft NBRP may be subject to amendments, as the implementation of the EPBD into Danish law has not yet been presented to and approved by the Danish Parliament. Accordingly, changes that may occur prior to the final adoption of the law will be reflected in the final NBRP. Denmark uses the templates for drafting the NBRP made available by the EU Commission. The headings in the template for indicators, targets, descriptions, etc. that are either optional or mandatory, if available/applicable, are deleted if they are considered irrelevant in the context of Denmark. If mandatory elements are not available in Denmark, this is stated in the draft NBRP.

Background

The Danish Government currently consists of Socialdemokratiet, Venstre and Moderaterne, and the foundation of the coalition's efforts, in regards to climate and energy policy, is stated in the government agreement called "Responsibility for Denmark" from December 2022[1]. The agreement emphasises the crucial importance of keeping pace and ensuring thorough implementation of the many climate measures that have been politically adopted. As part of the government agreement, it is stated that the Government will propose an ambitious emission reduction target for 2035. Furthermore, the agreement states that the Government will ensure a strong focus on energy efficiency in both private homes, businesses and public buildings.

[1] https://fm.dk/udgivelser/2022/december/regeringsgrundlag-ansvar-for-danmark/

Political agreements and legislation

In recent years Denmark has entered into a number of agreements that contribute to significant energy efficiency improvements. Due to these agreements, Danish citizens can currently, for example, receive subsidies to conduct energy renovations of their homes and convert from fossil fuel boilers to district heating or heat pumps. Furthermore, companies can receive support for energy saving projects, and municipalities and regions have agreed to focus on energy improvements and digitalisation projects to improve their building stock.

The following will give a brief overview of the relevant agreements and legislations. For more information, Denmark refers to their latest National Energy and Climate Plan (NECP) of June 2024[2], especially Section A, paragraph 1-1.1.ii; Section A, paragraph 2-2.2.ii; and Section A, paragraph 3-3.2.ii.

Energy Agreements (2018)[3]

In order to achieve a greater effect from the energy efficiency efforts in Denmark, the "Energy Agreement" of 29 June 2018 states that a fundamental modernisation of the energy efficiency efforts shall be conducted and the costs of energy efficiency improvements must be seen in relation to the costs of expanding renewable energy.

The agreement, furthermore, assigns funding for various subsidy schemes and supportive measures to achieve energy savings in the industry and housing sector and CO_2e-reductions from energy consumption in buildings in the period of 2021-2024. The subsidy schemes provide funding for e.g. district heating, electrical heat pumps and energy renovations.

It was also decided in the agreement to launch an information initiative, targeting consumers at the most relevant times for energy efficiency improvements, e.g. when purchasing or renovating a home. On this basis, the website Sparenergi.dk[4] from the Danish Energy Agency (DEA) was continued and expanded with more targeted information. All energy-saving campaigns via Sparenergi.dk are therefore rooted in this agreement.

Building Code 2018

The "Building Code 2018" (BR18) contains a wide range of energy requirements, which together constitute the implementation of the EPBD and determine the energy level for new construction, renovations, change of use, replacements and extensions of buildings.

New buildings are subject to comply with a requirement that takes into account the energy performance of the building. In addition, there are component requirements for the structures to ensure that they do not cause moisture problems or thermal bridges.

[2] https://ens.dk/globalt-samarbejde/national-energi-og-klimaplan-til-eu
[3] https://www.kefm.dk/media/6646/energiaftale2018.pdf
[4] https://sparenergi.dk/

Climate Act (2020)[5]

With the adoption of the "Climate Act" in 2020[6], an ambitious direction was set for Danish climate policy. The aim is to reduce Danish greenhouse gas (GHG) emissions by 70 pct. by 2030 compared to 1990 levels and climate neutrality by 2050 at the latest. The current government will move the climate neutrality goal to 2045 and wants to set a goal of a 110 pct. reduction by 2050 compared to 1990 levels. For example, agreements have been made on a CO_2e-tax in the industry and agriculture, reformation of taxation on cars, and support for carbon capture and storage, which will contribute significantly to meeting the 70 pct. target.

Climate Agreement for Energy and Industry etc. (2020) [7]

The "Climate Agreement for Energy and Industry etc." of 22 June 2020 stipulates that there is a need for targeted energy efficiency efforts, especially in industry, in order to reduce the consumption of fossil fuels. The effort may further include requirements for energy savings in government buildings and support for the implementation of energy renovations through data and digitalisation. The aim of the effort is, furthermore, to ensure that oil and gas boilers must be phased out and replaced with green alternatives.

Green Housing Agreement 2020 of 19 May 2020

The Danish Parliament sets the framework for investments at a national level in the maintenance and building standard in existing buildings in the non-profit housing sector. The financial resources used for the investments are reserves from the operation of existing homes. The means are prioritised and distributed by Landsbyggefonden[8] (The National Building Fund) a Danish national revolving housing fund that supports the non-profit housing sector (approx. 600,000 houses). The framework for the investments is established in recurring "Housing Agreements", leading to corresponding legislation.

The Danish Parliament has passed legislation that implements a so-called "Green Housing Agreement" for the period 2020-2026. A main focus for the Green Housing Agreement is investments in renovation of existing buildings. The agreement distributes subsidies in renovation corresponding to investments worth 3.6 bn. EUR (2020-level) in the Danish non-profit housing sector. The previous agreements have similarly focused on the renovation of homes.

It is assumed that a significant part of the means for renovation are used to raise the energy-standard which means that the affected buildings and parts of buildings are assumed to meet relatively high energy standards. Furthermore, it is assumed that life-cycle perspectives are part of the scheme administration.

[5] https://www.retsinformation.dk/eli/lta/2021/2580
[6] https://www.kefm.dk/klima/klimalov-
[7] https://www.kefm.dk/Media/8/8/aftaletekst-klimaaftale-energi-og-industri%20(1).pdf
[8] https://lbf.dk/

National Strategy for Sustainable Construction and limit values 2021

To support sustainable construction practices and reduce the climate impact from the building sector, the Danish Parliament agreed on a "National Strategy for Sustainable Construction" in 2021[9]. In the agreement, it was decided to introduce limit values for the construction of new buildings. In addition, it was agreed that the initial limit value of 12 kg CO_2eq/m^2/year must be tightened gradually to reflect increased ambitions. The political agreement on documenting the climate impact from the building sector and limiting emissions has laid the foundation for Denmark to meet the future requirements in the EPBD.

In May 2024 the Danish Government and a broad political majority agreed to a more ambitious target to tighten the limit of how much CO_2eq can be emitted per m^2 per year for new buildings from 2025[10]. The agreement introduces differentiated limit values for different building types as well as an expansion of building types included by the requirement. The agreement also focuses on the specific emissions from construction sites with a requirement to include impacts from the two modules in the LCA calculation, i.e. A4 (Transport to and from the site) and A5 (Construction installation process). The calculation of emission from the construction site must follow the standard EN 15978 and meet a separate limit value.

To increase the ambitions of the agreement, the scope of building types that are subject to the CO_2eq limit value has been expanded to include holiday homes and unheated buildings over 50 m², such as carparks and warehouses.

The limit value will be tightened by approximately 10 pct. in 2027 and 2029. The concrete limit values will be politically negotiated based on the latest knowledge and data.

Revision of the Danish Building Regulation 2024

As part of the political agreement in 2024[11], the parties also committed to a comprehensive revision of the Danish Building Regulation. The revision aimes to address the conflict between existing requirements for building safety and health and the introduction of stricter CO_2eq limits, and to ensure that the regulation could be practically implemented while balancing construction costs, feasibility, and the environmental and climate impact of buildings. Furthermore, the revision seeks to simplify regulatory requirements and ease the burden on building owners.

In addition, the agreement includes measures to promote the transformation of existing buildings. New rules are to be developed to facilitate renovation, conversion, and repurposing of existing structures, allowing these projects to follow a more flexible framework than that applied to new construction. To encourage renovation over demolition, the parties agreed to ease energy requirements for building transformations, aligning them with standards for major renovations.

[9] https://www.sbst.dk/byggeri/baeredygtigt-byggeri/national-strategi-for-baeredygtigt-byggeri
[10] https://www.sbst.dk/byggeri/helhedsorienteret-bygningsreglement
[11] https://www.sbst.dk/byggeri/helhedsorienteret-bygningsreglement

The Danish Government also launched a "Comprehensive Strategy to Revise the Danish Building Code".

The strategy for revising the Building Code emphasise the need for collaboration between authorities, municipalities and the industry.

Climate Agreement on Green Electricity and Heat (2022)[12] and follow-up agreement (2024)[13]

The "Climate Agreement on Green Electricity and Heat" of 25 June 2022 aims to increase the renewable energy production. The significant expansion of renewable energy (RE) shall, furthermore, deliver green electricity to direct electricity consumption in Denmark, including for consumption in buildings. Furthermore, the agreement sets out the political ambition to further increase the speed of the green transition in the Danish heating sector by phasing out fossil gas for household heating and replacing it with heat pumps and district heating as well as a number of specific initiatives to support this ambition. These include better conditions for investments in new district heating grids and initiatives to improve consumer protection. In december 2024 a number of these initiatives were implemented into Danish legislation, including a new price cap model for district heating. The price cap model does not limit the costs that district heating companies can charge, however, an exceedance will require district heating companies to present a plan to readjust their prices. Furthermore, a requirement of two independent board members in municipal district heating companies was implemented into Danish legislation along with an option for district heating companies to prolong depreciation of district heating pipes to 45 years instead of the previously allowed 30 years.

The agreement, furthermore, included reforms to the existing subsidy schemes for heat pumps and energy renovations with the aim of making grants more accessible and attractive to apply for. The changes had a focus of both easing and inciting transition to heat pumps and reducing administrative barriers for citizens applying for subsidies.

Roadmap for energy efficiency 2024[14]

"The Roadmap for Energy Efficiency" was published in June 2024. It outlines Denmark's ongoing and upcoming work on energy efficiency in the coming years, including the implementation of relevant EU directives, such as Directive (EU) 2023/1791 of 13 September 2023 on energy efficiency (EED), EPBD and other relevant national energy efficiency policies.

[12] https://www.kefm.dk/Media/637920977082432693/Klimaaftale%20om%20gr%C3%B8n%20str%C3%B8m%20og%20varme%202022.pdf
[13] https://www.kefm.dk/Media/638554354774996004/Opf%C3%B8lgende%20aftale%20ifm.%20klimaaftale%20om%20gr%C3%B8n%20str%C3%B8m%20og%20varme%202022%20og%20Rigs-revisionens%20beretning%20om%20tilsyn%20med%20aftaler%20i%20forsyningssektoren.pdf
[14] https://www.kefm.dk/Media/638536957894304261/K%C3%B8replan%20for%20energieffektivitet_web.pdf

The roadmap is part of the Danish Government's objective to "ensure a strong focus on energy efficiency in private homes, businesses and public buildings". It also reflects Denmark's ambition to support the green transition both within the EU and globally.

In the roadmap, it is also emphasised that energy efficiency is a central element of Danish energy policy. This includes continuously reconsidering, expanding and adapting energy efficiency measures in line with other decarbonisation efforts.

The roadmap also reaffirms the concept of Energy Efficiency 2.0. Here, energy efficiency is framed as an umbrella term covering energy behaviour, energy renovations, electrification, fuel conversions (e.g. replacing fossil-fuel boilers with heat pumps) and the use of surplus heat. Flexibility, supported by digitalisation and skills development, is also highlighted as a key factor. Together, these elements are intended to ensure efficiency in a system based on renewable energy.

Agreement of joint efforts on energy efficiency in public buildings (2025) [15]

As part of the implementation of the obligations for the renovation of public buildings in accordance with Article 6 of the EED, the Danish Ministry of Climate-, Energy- and Utilities has entered into an "agreement of joint efforts on energy efficiency in public buildings" of 22 May 2025 with Danish Municipalities (KL) and Danish Regions, representing respectively the municipalities and the regions of Denmark. The agreement will be further described in Section c paragraph l.

Subsidy Schemes

Lastly, Denmark has established various subsidy schemes and supportive measures to ensure energy efficiency efforts as part of the above-mentioned political agreements and legislation. These efforts are described in the paragraphs below as well as in the various versions of the Danish NECP, especially Section A, paragraph 1.1.iii; Section A, paragraph 2.2; Section A, paragraph 3-3.2 and Section B, paragraph 5.3.i.

Draft National Building Renovation Plan

a) Overview of the national building stock

Qualitative elements: Method and baseline for 2020 and Article 9

For the analysis and mapping of both the non-residential and the residential building stock for the baseline in 2020 to be used for implementing Article 9 of the EPBD, Denmark has chosen to include data from existing buildings, i.e. all buildings constructed in 2020 or later are excluded from the baseline.

In order to qualify the mapping of the building stock in 2020, further analysis has been carried out in order to scale the different datasets in a suitable way. This analysis is based on a data extract

[15] https://www.kefm.dk/Media/638835798121243223/Aftale%20mellem%20KEFM,%20KL%20og%20Danske%20Regioner%20om%20energirenoveringer%20i%20offentlige%20bygninger.pdf

from the Danish energy performance certificate (EPC) database[16], containing all EPC-labelled residential and non-residential buildings from January 2019 to June 2024, as well as an extract from the Danish Buildings- and Housing Register (BBR – Bygnings- og Boligregistret[17]). The extract from the BBR-database is as it appears in 2024 as the register does not have public access to historical data on the building stock.

For the mapping of both the residential and the non-residential building stock the full EPC-dataset from 2019-2024 is used, as these studies benefit from a larger dataset, as it allows for a higher level of detail.

Denmark has, furthermore, conducted a bias analysis in order to take into account the possible bias the EPC-data inevitably carries with it. For the bias analysis Denmark has only used EPC-data from 2019, as the bias must be used to weight the EPC-data according to the BBR-data, to determine the baseline of the residential and the non-residential building stock of January 1 2020.

Furthermore, Denmark has made estimations of the energy performance of vacation houses and residential buildings officially protected as part of a designated environment or because of their special architectural or historical merit or other heritage buildings, as there are none or limited EPC-data on these types of buildings in Denmark. Denmark has therefore used BBR-data, data from the registry of protected buildings[18], managed by the Danish Agency for Culture and Palaces[19]. Furthermore, Denmark has based the estimation of the energy performance in vacation houses on a previous study conducted by Aalborg University[20]. For more information on the method and analysis see here[21].

Lastly when it is stated in the various tables and paragraphs throughout the draft NBRP; 2025 is the reference year for X-2, M means mandatory and Miav means mandatory if available.

Number of buildings and total floor area (m²):

- **per building type (including public buildings and social housing):**

The number of buildings and floor area is based on data from the central authority on Danish statistics, Statistics Denmark[22]. The data is publicly available online[23]. The data is divided into residential and non-residential buildings based on their usage code in the BBR-database. Buildings without a heating installation are excluded.

Residential buildings are all types of residential buildings, including vacation houses.

[16] https://emoweb.dk/emodata/test/
[17] https://bbr.dk/forside
[18] https://kulturarv.dk/fbb/index.htm;jsessionid=115ECF0A5B81B3A26EAEBE453EAE3BA5
[19] https://slks.dk/omraader/kulturarv/databaserne/fredede-og-bevaringsvaerdige-bygninger
[20] "Fastlæggelse af nøgletal for varmeforbrug i sommerhuse", BUILD, AAU
[21] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering
[22] https://www.dst.dk/da/
[23] https://www.dst.dk/en/Statistik/emner/erhvervsliv/byggeri-og-anlaeg/bestanden-af-bygninger

Non-residential buildings exclude buildings used for agricultural purposes, industry, power production and buildings for transport purposes. It also excludes garages and outhouses as these are usually not fully heated.

Mixed use buildings are defined by their dominant purpose, based on area. This means that, if a building is used for both residential and non-residential purposes, the use of the largest part of the area will characterise the whole building as either residential or non-residential.

The category "Offices" in a Danish context covers both office buildings, retail and storage buildings. The category "Other" includes buildings for religious purposes, museums, institutions and buildings for leisure purposes.

There is no definition scoping the amount of social housing in Denmark. The closest thing to social housing is "almene boliger" which covers the following building types:

1) Residential buildings for families, constructed with support from and owned by a social housing organisation or the municipality;
2) Residential buildings for elders or people with care needs, constructed with support from and owned by a social housing organisation or the municipality;
3) Residential buildings for young people, constructed with support from and owned by a social housing organisation; and
4) Other dormitories, typically owned by independent institutions.

Table 1:

Code	**Building type**	**M/ Miav**	**No of buildings / building units**		**Floor area** (m^2)	
			Year X-2	**2020**	**Year X-2**	**2020**
R	**Residential** *Out of which*	M[24]	1,855,545	1,818,366	355,029,000	342,404,000
(a)	*single-family houses of different types*	Miav[25]	1,751,761	1,717,704	250,721,000	244,302,000
(b1)	*apartment blocks or multi-family buildings*[26]	Miav	103,784	100,662	104,308,000	98,102,000

[24] Mandatory
[25] Mandatory if available
[26] As defined in the BSO: Apartment buildings = large multi-family > 4 floors; Multi-family buildings = small multi-family with up to 4 floors.

(b2)	*residential building units[27] in apartment blocks or multi-family buildings*	Miav	Not available in DK.	Not available in DK.		
	Out of which social housing[28]	M	97,954	96,143	49,433,000	47,906,000
NR	**Non-residential** *Out of which*	M	135,709	135,141	169,639,819	166,585,583
(c)	*offices*	Miav	63,094	63,211	73,732,000	71,764,000
(d)	*educational buildings*	Miav	15,549	16,277	23,056,000	23,247,000
(e)	*hospitals & healthcare buildings*	Miav	3,099	2,921	5,824,000	5,463,000
(f)	*hotels and restaurants*	Miav	11,710	11,754	7,319,000	7,002,000
(g)	*sport facilities*	Miav	8,133	7,542	7,358,000	6,813,000
(h)	*wholesale and retail trade services buildings*	Miav	Included in (c)	Included in (c)	Included in (c)	Included in (c)
(i)	*Other type (describe if any)*	Miav	34,124	33,436	13,358,000	12,872,000
	Out of which public buildings	M	34,698	34,318	38,992,819	39,424,583
T	**Total**	M	**1,991,254**	**1,953,507**	**485,676,000**	**469,565,000**

- **per energy performance class:**

Data for the number of buildings and floor area per EPC class is based on the national EPC database. The current scale has nine steps: from A2020 to G.

The methodology for categorising residential, non-residential and mixed-use building follow the same categories as described in the preceding table "per building type" (Table 1). For vacation houses it was only possible to receive an EPC until 2017, meaning from 2018 and forward there are no vacation houses included in the data.

The floor area has been calculated based on the EPC data on the buildings dwelling and commercial area, as noted in the BBR at the time of the EPC's submission.

[27] Article 2(18)

[28] Specify whether reported as buildings or building units

Table 2:

EPC Class	Number of residential/ non-residential building or /building units in Year X-2	Floor area residential/non-residential in Year X-2 (m^2)
A2020	15,516	8,134,541
A2015	57,231	25,347,822
A2010	37,061	20,624,102
B	74,480	36,410,363
C	228,730	93,887,059
D	177,732	55,996,737
E	80,591	18,626,418
F	38,412	8,017,707
G	27,752	6,217,288
Without valid EPC	1,253,749	251,406,782
Total	**1,991,254**	**524,668,819**

o Nearly Zero-Energy Buildings

The number of new or renovated Nearly Zero-Energy Buildings (NZEB) are tracked using the national EPC database. For new buildings to be NZEB, they should be at least label A2015 and build in 2023. For existing buildings label B is sufficient to be characterised as a NZEB, based on current definitions and EPC scale. The national EPC database does not track whether a building has been renovated or not. As such, it is not possible to provide data specifically for renovated buildings only for the existing building stock. The reported numbers for renovated buildings are calculated for all EPCs for existing buildings with a label of B or better. DEA has thus assumed that all renovated NZEB buildings are built before 2023.

Table 3:

New or renovated	Cumulative number of NZEB in Year X-2	Cumulative floor area of NZEB in Year X-2 (m^2)
New	68,326	30,725,997
Renovated (if any)	94,618	54,128,404
Total	**162,944**	**84,854,401**

o worst-performing buildings (including a definition)

For non-residential buildings the worst-performing buildings (WPB) are defined based on their EPC-label. In order to be a worst-performing non-residential building, the building must have an energy performance corresponding to EPC-label D, E, F or G. The WPB in 2020 are mapped based on data from the EPC-database, scaled according to the distribution of buildings in the total building stock according to the BBR and adjusted for assumed bias in both datasets. The area of WPB is assumed based on the number of buildings for non-residential buildings. The WPB for 2023 is based on EPCs issued in the given year.

o the 43 pct. worst-performing residential buildings

For residential buildings, the WPB are, in accordance with the Directive, the 43 pct. residential buildings with the lowest energy performance. Analysis performed on the building stock as it was in 2020, using data from both the BBR and EPC-data, has shown that 42 pct. of the residential building stock is D, E, F and G, meaning these buildings are all in the category WPB. In a Danish context, worst-performing residential buildings are therefore considered to be all residential buildings with an energy performance corresponding to EPC-label D, E, F or G. The worst-performing buildings in 2020 and 2023 are reported based on data from the EPC-database, without the bias analysis, in order to ensure comparability between the years. The number of WPB is assumed based on the area for residential buildings.

For more on the qualitative elements and description of the method and baseline for 2020 in relation to Article 9, see the above description as well as here[29].

Table 4:

Worst-performing buildings	Number of buildings		Floor area (m^2)	
	Year X-2	**2020**	**Year X-2**	**2020**
Residential	711,867	798,293	136,204,300	150,321,000
Non-Residential	45,667	73,822	43,963,500	69,462,600
Total	**757,534**	**872,115**	**180,167,800**	**219,783,600**

o estimation of the share of buildings exempted pursuant to Article 9(6), point (b)

The definition for non-residential buildings exempted pursuant to Article 9(6) point (a) has not yet been finalised. However, it is expected to be between 37,000-95,000 non-residential buildings based on classifications of the levels of preservation via the Danish SAVE method[30]. Approximately 5,250 buildings are officially protected and cannot be renovated without compromising their historical value. Approximately 32,500 buildings are designated as a high worth of preservation. Approximately 37,000 buildings are designated as medium worth of preservation

[29] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering
[30] https://slks.dk/omraader/kulturarv/bevaringsvaerdige-bygninger-og-miljoeer/bevaringsvaerdige-bygninger-metode/save

and might not be able to comply with the minimum standards without unacceptably altering their character or appearance.

Indicator for exemption is further reported under Section f.

Number of energy performance certificates

- **per building type (including public buildings):**

Data for the numbers of building types per EPC is based on the national EPC database. The data has been calculated per EPC and not per building.

The methodology for categorising residential, non-residential and mixed-use buildings follow the same categories as described for Table 1. For vacation houses it was, as previously mentioned, only possible to receive an EPC until 2017, meaning from 2018 and forward there are no vacation houses included in the data.

The national EPC database does not categorise non-residential buildings into subcategories, such as the codes (c)-(i) in Table 5. In order to fill in the table, BBR usage codes have been used to segment the EPCs into appropriate categories. The methodology for placing buildings into categories follows the methodology described for Table 1 under the paragraph "Qualitative elements: Method and baseline". The national EPC database does, furthermore, not categorise which buildings are public buildings. In order to fill in the table, data from the BBR has been used, which is based on the EPC database at the time of submission of the public buildings EPC, to determine the buildings status.

Table 5:

Code	Building Type	M/ Miav	No of valid EPC in Year X-2
R	**Residential** *Out of which*	M	573,033
(a)	*single-family houses of different types*	Miav	519,672
(b1)	*apartment blocks or multi-family buildings*	Miav	53,361
(b2)	*residential building units in apartment blocks or multi-family buildings*	Miav	Not available in DK.
NR	**Non-residential** *Out of which*	M	34,594
(c)	*offices*	Miav	16,731
(d)	*educational buildings*	Miav	4,299
(e)	*hospitals & healthcare buildings*	Miav	824
(f)	*hotels and restaurants*	Miav	1,866

(g)	*sport facilities*	Miav	3,316
(h)	*wholesale and retail trade services buildings*	Miav	Not available in DK.
(i)	*Other type (describe if any)*	Miav	7,558
	Out of which public buildings	M	14,320
T	**Total**		607,627

- **per energy performance class:**

Table 6:

EPC Class	No of valid EPCs in year X-2
A2020	15,267
A2015	56,511
A2010	27,796
B	45,242
C	170,895
D	156,232
E	72,530
F	36,077
G	27,122
Total	**607,627**

Annual renovation rates

Development of the EPCs issued in one year compared to former years gives an indication of the renovation rate of the Danish building stock, however, it does not necessarily reflect improvements achieved in the given year and does not provide information on the renovation depth. Therefore, the DEA has charged an external consultancy firm with the task of carrying out an analysis of the renovation rates and depths in Denmark. The analysis will entail a mapping of the available data and provide a method for determining the renovation rate and depth for the future use of the DEA. The results of this analysis are expected to be ready in February 2026, and is therefore expected to be included in the final NBRP to be submitted by no later than 31 December 2026.

Primary and final energy consumption (ktoe)

The final energy consumption is reported based on values found in the Annual Energy Production and Consumption Statistics of 2023[31], conducted by the DEA. The reported values are climate adjusted to ease comparison between years. The value is the energy consumption for heating of buildings, according to the statistic, added with the assumed consumption of electricity used for

[31] https://ens.dk/en/analyses-and-statistics/annual-and-monthly-statisticshttps://ens.dk/en/analyses-and-statistics/annual-and-monthly-statistics

buildings. The assumed consumption of electricity is calculated as an average value for electricity use pr. m^2 in single family, multifamily and commercial buildings, multiplied by the total area of these groups. Data for the distribution of consumption between the different building types is not available.

The average primary energy consumption in each of the groups are calculated based on the EPCs, weighted with a correction factor in order to account for the assumed bias in the EPCs, and then multiplied with the given area to find the total primary energy consumption. Data for the distribution of consumption between the different building types is not available.

- **per building type:**

Table 7:

Code	Building type	M/ Miav	Final energy consumption in year X-2 (ktoe)		Primary energy consumption in year X-2 (ktoe)	
			Year X-2	2020	Year X-2	2020
R	**Residential** R= (a) + (b1) Or R = (a) + (b2) *Out of which*	M	3,581	3,803	4,020	4,593
(a)	*single-family houses of different types*	Miav	2,576	2,766	Not available	Not available
(b1)	*apartment blocks or multi-family buildings*	Miav	1,006	1,037	Not available	Not available
(b2)	*residential building unit in apartment blocks or multi-family buildings*	Miav	Not available	Not available	Not available	Not available
NR	**Non-residential** NR = (c) + (d) + (e) + (f) +(g) + (h) +(i) *Out of which*	M	1,349	1,336	1,845	2,023
(c)	*offices*	Miav	Not available	Not available	Not available	Not available
(d)	*Educational buildings*	Miav	Not available	Not available	Not available	Not available
(e)	*hospitals & healthcare buildings*	Miav	Not available	Not available	Not available	Not available

(f)	*hotels and restaurants*	Miav	Not available	Not available	Not available	Not available
(g)	*sport facilities*	Miav	Not available	Not available	Not available	Not available
(h)	*wholesale and retail trade services buildings*	Miav	Not available	Not available	Not available	Not available
(i)	*Other type (describe if any)*	Miav	Not available	Not available	Not available	Not available
T	**Total** T=R + NR	M	**4,930**	**5,140**	**5,865**	**6,616**

- **per end use:**

In a Danish context there are no national statistics on the distribution of the energy consumption into end-uses, as requested in this paragraph. The disaggregation is based on assumptions for the average energy consumption for the different end-uses in the different parts of the building stock. Both primary and final energy consumption are calculated based on the same distribution key.

Table 8:

End use	**Primary energy consumption in Year X-2** (ktoe)	**Final energy consumption in Year X-2** (ktoe)
Space heating	4,750	3,993
Space cooling	16	14
Domestic hot water	762	640
Ventilation	91	76
Built-in Lighting	95	79
Other Technical Building Systems	152	128
Total	**5,865**	**4,930**

Energy savings (ktoe):

- **residential buildings**
- **non-residential buildings**
- **public buildings**

The energy savings has been calculated as the energy saving between the values reported for 2020 and the values reported for 2023. The slight increase in the final energy consumption for non-residential buildings is assumed to be mostly due to an increase in the build area, surpassing the decrease in consumption due to energy improvements. As the "savings" in public buildings is only calculated as the share of the total "savings" based on area, the table also show an increase in the

consumption in public buildings. This can however not be compared to the reporting for the EED as this is an oversimplified way of calculating and only shows a difference in consumption, not savings achived, which has a different definition.

Table 9:

Building type	**Savings in primary energy consumption** ktoe	**Savings in final energy consumption** ktoe
Residential	-573	-222
Non-residential	-177	13
Out of which public buildings	-41	3
Total savings	**-750**	**-209**

Note: Negative numbers represent a saving in accordance with the excel template. Positive numbers represent an increase in consumption.

Average primary energy use in kWh/(m².y) for residential buildings

Indicator for this paragraph is reported under Section g.

Share of renewable energy in the building sector (MW installed or GWh generated)

- **for different uses**

Data is available for 2021 and 2024 for the total building stock. In 2021 71 pct. of the energy consumption for heating of buildings was renewable energy, and in 2024 the share was 73 pct.

Annual operational greenhouse gas emissions (kgCO_2eq/(m².y)

- **per building type:**

Annual operational GHG emissions for residential and non-residential buildings can be found in the Annual Energy Production and Consumption Statistics 2023, conducted by the DEA[32].

[32] https://ens.dk/en/analyses-and-statistics/annual-and-monthly-statistics

Table 10:

Code	Building Type	M/ Miav	Total GHG emissions in Year X-2 ($MtCO_2eq$)	GHG emissions per m² in Year X-2 ($kgCO_2eq/(m^2.y)$)
R	**Residential** *Out of which*	M	 1.8	 5.04
(a)	*single-family houses of different types*	Miav	1.5	Not available in DK.
(b1)	*apartment blocks or multi-family buildings*	Miav	0.3	Not available in DK.
(b2)	*residential building unit in apartment blocks or multi-family buildings*	Miav	Not available in DK.	
NR	**Non-residential** *Out of which*	M	0.6 NR = (c) + (d) + (e) + (f) +(g) + (h) +(i)	3.29 NR' = NR/ (non-residential floor area)
(c)	*offices*	Miav	Not available in DK.	Not available in DK.
(d)	*educational buildings*	Miav	Not available in DK.	Not available in DK.
(e)	*hospitals & healthcare buildings*	Miav	Not available in DK.	Not available in DK.
(f)	*hotels and restaurants*	Miav	Not available in DK.	Not available in DK.
(g)	*sport facilities*	Miav	Not available in DK.	Not available in DK.
(h)	*wholesale and retail trade services buildings*	Miav	Not available in DK.	Not available in DK.
(i)	*Other type (describe if any)*	Miav	Not available in DK.	Not available in DK.
T	**Total**	M	**2.3** T=R + NR	**4.48** T'=T/(total floor area)

Annual operational greenhouse gas emission reduction ($kgCO_2eq/(m^2.y)$)

- **per building type**

The annual operational GHG emission reduction is calculated as the reduction from 2022 until 2023 in the Annual Energy Production and Consumption Statistics[33], conducted by the DEA.

[33] https://ens.dk/en/analyses-and-statistics/annual-and-monthly-statistics

Table 11:

Building type	**Reduction of annual operational greenhouse gas emissions** ($kgCO_2eq/(m^2.y)$)
Residential	-0.4
Non-residential	-0.5
Total	-0.4

Note: Negative numbers represent a reduction. Positive numbers represent an increase in emissions.

Life-cycle GWP ($kgCO_2eq/m^2$) in new buildings (optional indicator):

○ per building type

The best data for life-cycle global warming potential (GWP) in new buildings in Denmark comes from the BUILD report 2023:21 "Klimapåvirkning fra nybyggeri"[34]. In the report the median for the 163 cases is 9.05 kg CO_2eq/m^2 per year over 50 years.

The results have been evaluated for 8 different building types:

Table 12:

Building type	**Median** (kg CO_2eq /m^2/year)
Single family houses	8.89
Multifamily houses	8.47
Row houses	8.19
Offices	9.46
Institutions	9.31
Educational buildings	11.55
Hospitals	10.55
Other	10.28

In the Building Code there are limit values for life-cycle GWP for the following building types:

- Summer homes, camping hut and similar under 150 m²: 4.0 kg CO_2eq/m^2/year
- Summer homes, camping hut and similar over 150 m²: 6.7 kg CO_2eq /m^2/year
- Single family houses and row houses: 6.7 kg CO_2eq /m^2/year
- Multifamily houses and office buildings: 7.5 kg CO_2eq /m^2/year
- Other buildings: 8.0 kg CO_2eq /m^2/year.

[34] https://vbn.aau.dk/ws/portalfiles/portal/611654176/2023_21_Klimap_virkning_fra_nybyggeri.pdf

Market barriers and failures (description):

Analysis of the Danish Building Code 2021

Denmark has previously conducted a study on the compliance of the Danish Building Code rules on energy performance and renovation requirements, "Analyse af efterlevelse af bygningsreglementets energikrav ved renovering af eksisterende bygninger samt omfanget af renovering 2021"[35], which was submitted as part of the long-term renovation strategy (LTRS[36]), according to Article 2a in the EPBD of 19 May 2010 (EPBD 2010/31/EU). For a more detailed description of this study, Denmark refers to the LTRS.

The study's main conclusions for increasing the scope of renovations and compliyng with the Building Codes' energy requirements when renovating were as follows:

1. Ensure support via e.g. a subsidy scheme for energy renovations
2. Ensure greater awareness of energy requirements in the building code via e.g. targeted information
3. Enhanced focus on the teachings on energy requirements in the vocational education system as well as upskilling the existing work force
4. Make it a requirement to have an associated third-party advisor/auditor on large renovation projects, possibly in combination with the commissioning process of technical installations.

For a description of the measures Denmark put in place following this analysis, please see Section c.

Reports on barriers and potentials in the building regulation

In 2024 the Danish Authority for Social Service and Housing initiated three projects in collaboration with two external advisory companies, Rambøll and NIRAS, with the aim of analysing the municipal building permit process in practice. The aim was to map barriers and potentials for regulatory improvements and increased efficiency. The outcomes of the analyses are reported in the three reports:

- "Analyse af den kommunale byggesagsbehandling i praksis" (Analysis of the municipal building permit processing in practice – from the municipal perspective)[37]
- "Analyse af den kommunale byggesagsbehandling fra ansøgers perspektiv" (Analysis of the municipal building permit processing from the applicant's perspective)[38]

[35] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering
[36] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering
[37] https://www.sbst.dk/Media/638814417995551620/Kortlgning%20af%20den%20kommunale%20byggesagsbehandling%20i%20praksis_final.pdf
[38] https://www.sbst.dk/Media/638814417848928400/Analyse%20af%20den%20kommunale%20byggesagsbehandling%20fra%20ansgers%20perspektiv.pdf

- ”Undersøgelse af stikprøvekontrol, lovliggørelse og dispensation i bygningsreglementet” (Study of random inspections, legalisation procedures and exemptions in the Danish building codes)[39].

The Danish Authority for Social Service and Housing also published two reports in 2024 about “Barriers for renovation”[40] and “Barriers and opportunities for biobased and reused materials in the Danish building regulation”[41].

o split incentives

See description of possible influence on rent subsidies under the paragraph on “Expected wider benefits “.

Furthermore, in older privately rented properties with rent control there are so-called “split incentives” (in Danish, “Paradoksproblemet”). This split incentive arises because the landlord decides whether to implement energy improvements and makes the investment.

However, the tenants subsequently benefit from reduced energy bills and increased comfort. The tenants pay for the energy improvements through a rent increase linked to the upgrades, and if the tenant’s energy savings exceed the rent increase, the tenant can achieve a net financial saving.

This means that otherwise profitable energy-saving investments may not be made due to the landlord’s uncertainty about the financial benefits of the investment.

In 2014 the government at the time attempted to address these split incentives through the so-called “Energisparepakke”, but it remains uncertain how much it increased investments in energy-saving improvements for older privately rented properties.

o evaluation of the capacities in the construction, energy efficiency and renewable energy sectors

Workforce capacity

A potential issue concerns the risk of labour shortages in the sectors affected by the Directive. If the demand for labour required to comply with the EU directives exceeds the available workforce, it could pose challenges in fully meeting the Directive’s requirements.

The Danish Agency of Labour Market and Recruitment has outlined the labour force status of the construction and energy sector in Denmark. The agency finds that there is currently a general capacity pressure in the group of occupations related to construction and civil engineering. The failed recruitment rate (FRR), defined as the share of recruitment attempts that either remained unfilled

[39] https://www.sbst.dk/Media/638814418065356873/Undersgelse%20af%20stikprvekontrol%20lovliggrelse%20og%20dispensation_27012025.pdf

[40] https://www.sbst.dk/Media/638814417891714920/Analyse%20af%20krav%20ved%20renovering%20af%20eksisterende%20byggeri.pdf

[41] https://www.sbst.dk/Media/638442760533494160/Barrierer%20og%20muligheder%20for%20biogene%20og%20genbrugte%20byggematerialer%20i%20BR18.pdf

or were filled by candidates lacking the required qualifications, stood at 29 pct. for this occupational group in June 2025. By comparison, the national average across all occupations was 20 pct. in the same period.

The Danish Agency for Labour Market and Recruitment classifies an occupation as being in shortage if the FRR exceeds 20 pct. The group of occupations related to construction and civil engineering has been above this threshold in every quarterly assessment since 2019.

However, there is considerable variation across occupational titles. Capacity pressures are particularly pronounced in skilled positions such as construction manager, building constructor, electrician, machine operator and construction worker. In contrast, traditional trades, such as bricklayer, carpenter, and painter, appear to face more moderate pressures.

For occupational titles with a more academic background, recruitment difficulties are generally weaker. This includes, for example, mechanical engineers, electronic engineers, architects, civil engineers and marine engineers, all of which recorded a failed recruitment rate at or below 20 pct. in June 2025.

The Danish Government has recently reached agreement on a legislative proposal to introduce a new collective agreement-based initiative which is intended to ensure easier access for Danish businesses to foreign labour from selected countries[42]. The initiative is expected to increase the inflow of foreign labour, particularly in the construction sector, thereby helping to alleviate the current labour market challenge in the sector.

Energy poverty (definition)

In Denmark there is a wide social security net which makes it possible to cover common household costs, including energy costs. For households with a low income and high energy expenditures, it is possible to recieve certain support. For instance, it is possible for retirees to receive a heating supplement (Varmetillæg). Furthermore, households can apply several funds for energy improvements. Denmark does not have an official definition of energy poverty the same way Denmark does not have an official poverty threhshold.

However, due to Denmark's obligations in the EEED and the Social Climate Fund, Denmark is obliged to estimate the number of low-income households with a certain energy burden. The assessment is a technical implementation of EU-legislation and thus cannot be seen as an official energy poverty definition in Denmark.

On this basis, Denmark has included a national assessment of low-income households with a certain energy burden with the updated NECP from 2024. In this Denmark uses three indicators, which are combined into two different models, which together constitute a definition of energy poverty in a Danish context. The three indicators are: low-income, dwellings with low energy performance, and high energy consumption. Based on the two models, it is indicated that there are

[42] https://bm.dk/arbejdsomraader/aktuelle-fokusomraader/ny-overenskomstordning-for-udenlandsk-arbejdskraft

approximately between 7,000–29,000 households in the target group in Denmark. This corresponds to a share of approx. 0.2–0.9 pct. of all Danish households. To see more, look under chapter 2.4.4 on energy poverty in the Danish NECP from 2024[43].

Primary energy factors:

- **per energy carrier**
- **non-renewable primary energy factor**
- **renewable primary energy factor**
- **total primary energy factor**

The primary energy factors to be used when making an EPC are set in the Danish building Code §§252[44].

The current values are as follows:

- Electricity: 1.9
- District heating: 0.85
- All other types: 1.0

The current PEF values were introduced in 2018 as forwardlooking values that represented the efficiency of the Danish energy system.

The values in table 13 below does not reflect politically decided values. The values simply represent the calculated primary energy factors based on the available data and progression for the Danish energy system. The values only serve as foundation for the calculations in Section b "Roadmap for 2030, 2040 and 2050" of the draft Danish NBRP. Furthermore these values are not reflected in the Danish EPCs or in the building code, where the values above are used. These values may change by the submission of the final NBRP.

Table 13:

Primary energy factors per energy carrier	Non-Renewable (fPnren) in Year X-2	Renewable (fPren) in Year X-2	Total (fPtot) in Year X-2
District heating	0.19	0.86	1.05
Electricity	0.04	1.55	1.60
Gas	0.57	0.68	1.24
Biomass		1.20	1.20
Oil	1.10		1.10

[43] https://ens.dk/globalt-samarbejde/national-energi-og-klimaplan-til-eu

[44] https://www.bygningsreglementet.dk/Historisk/BR18_Version1/Tekniske-bestemmelser/11/BRV/Energiforbrug/Kap-1_1

Definition of Nearly Zero-Energy Building for new and existing buildings

In Denmark the definition of NZEB for new buildings is included in the building regulations as the minimum requirement level.

The requirement for new residential buildings is that the building's total energy input for heating, ventilation, cooling and hot water per m² heated floor area must not exceed 30.0 kWh/m² per year plus 1,000 kWh per year divided by the heated floor area.

The requirement for new non-residential buildings is that the building's total energy input for heating, ventilation, cooling, hot water and lighting per m² heated floor area must not exceed 41.0 kWh/m² per year plus 1,000 kWh per year divided by the heated floor area. For non-residential buildings with a need for a high level of lighting, extra ventilation, a high consumption of hot water or a long period of use or for buildings with high room heights, the allowed energy consumption is increased by a supplement corresponding to the calculated energy consumption.

The level for existing residential buildings is that the building's total energy input for heating, ventilation, cooling and hot water per m² heated floor area must not exceed 70.0 kWh/m² per year plus 2,200 kWh per year divided by the heated floor area.

The level for existing non-residential buildings is that the building's total energy input for heating, ventilation, cooling, hot water and lighting per m² heated floor area must not exceed 95.0 kWh/m² per year plus 2,200 kWh per year divided by the heated floor area. For non-residential buildings with a need for a high level of lighting, extra ventilation, a high consumption of hot water or a long period of use or buildings with high room heights, the allowed energy consumptionis increased by a supplement corresponding to the calculated energy consumption.

The level has been the minimum requirement for all new buildings in the building regulations since 2016.

Cost-optimal minimum energy performance requirements for new and existing buildings

In 2023 the Danish cost-optimal report[45] was delivered, evaluating the energy requirements in the Danish Building Code in relation to the Delegated Regulation (EU) 244/2012 of 16 January 2012. The purpose of the report was to analyse the cost optimality of the energy requirements in the Danish BR18 to new buildings and to existing buildings undergoing major renovation. The report shows that the requirements in the Danish Building Regulations meets the standard of the cost-optimal level.

[45]https://vbn.aau.dk/ws/portalfiles/portal/553979646/Cost-optimal_levels_of_minimum_energy_performance_requirements_in_the_Danish_Building_Regulations_3.pdf

Table 14:

Reference buildings		**Total Primary Energy** (kWh/m².y)		**U-value Building element**[46] (W/m²K)		**Other relevant parameters, established by MS**	
New/ Existing	Type	Cost-Optimal level	Current requirement in force	Cost-Optimal level	Current requirement in force	Cost-Optimal level	Current requirement in force
New	Single family buildings	57.7 (district heating) 45.5 (heat pump)	36.7 (based on a reference building of 150 m²				
	Multi-family buildings	36.7	30.9 (based on a reference building of 1080 m²)				
	Office buildings	44.1	41.3 (based on a reference building of 3283 m²)				
	Other non-residential	44.1	41.3 (based on a reference building of 3283 m²)				
Existing	Single family buildings	97.3-117.0 (house from 1930) 83.2-104.5 (house from 1960) The range depend on heat supply	91.4 (based on reference house of 103 m² from 1930) 91.4 (based on reference house of 108 m² from 1960)				

[46] Among wall, roof, floor, window, other

	Multi-family buildings	49.9 (building from 1930) 54.9 (building from 1960)	71.3 (based on reference building of 1664 m² from 1930) 70.6 (based on reference building of 3640 m² from 1960)				
	Office buildings	59.3 (building from 1960) 60.6 (building from 1980)	95.7 (based on a reference building of 3283 m²)				Requirements for renovation-level moves the building close to the cost-optimal level
	Other non-residential	59.3 (building from 1960) 60.6 (building from 1980)	95.7 (based on a referencebuilding of 3283 m²)				Requirements for renovation-level moves the building close to the cost-optimal level

b) Roadmap for 2030, 2040 and 2050

Targets for annual renovation rates: number and total floor area (m²):

- **per building type**
- **worst-performing buildings**
- **the 43 pct. worst-performing residential buildings**

A method to determine the renovation rate is, as previously mentioned, currently being developed and is expected to be submitted as part of the final NBRP to be submitted by no later than 31 December 2026. However, based on the targets for the building stock, targets for annual renovation rates are preliminarily stated in this paragraph. These targets might therefore change with the update of the renovation rate in the final version of the NBRP.

It is, furthermore, highlighted that not all buildings will have to undergo renovation before 2050 in order to achieve a zero-emission building stock as a whole. Some buildings will be improved above the thresholds and help raise the average for the whole building stock.

For residential buildings, the necessary renovation rate is preliminarily estimated based on an initial assumption[47] that 85 pct. of residential buildings will have to undergo some form of renovation before 2050 and that 55 pct. of these would be in the category of worst performing buildings. The number of buildings that must undergo renovation is then calculated based on the buildings stock in 2020 and evenly distributed across the years.

For non-residential buildings, the renovations are set to follow the Minimum Energy Performance Standard (MEPS)-thresholds, and renovations are assumed to begin with the worst performing buildings as all of these, if possible, should be renovated before the 2040-threshold.

The renovation depth is calculated based on the estimated development in the average energy performance which is necessary in order to achieve the zero-emission building stock as a whole in 2050.

For more information on the qualitative elements, regarding the method and analysis used for setting the targets and mapping the building stock, see Section a "Overview" as well as here[48].

Information pursuant to Article 9(1):

With the Danish Government's draft law on the EPBD, it is suggested to set the following criteria for the possible exemptions for all of the three categories listed in Article 9(1). The draft NBRP may be subject to amendments as the implementation of the EPBD into Danish law has not yet been presented to and approved by the Danish Parliament. Accordingly, changes that may occur prior to the final adoption of the law will be reflected in the final NBRP.

- **criteria to exempt individual non-residential buildings**

The granting of the exemption will depend on the individual and specific context of the relevant building owner and the building itself why the exemption may only be temporary and may also not apply to the entirety of the building but perhaps only for certain energy saving measures. For more information, see the draft legislation "Lov om ændring af lov om fremme af energibesparelser i bygninger og forskellige andre love. (Indførelse af minimumsstandarder for energimæssig ydeevne, ændringer af energimærkningsordning, ordning for renoveringspas m.v.)".

The draft criteria are as follows:

[47] This assumption is set with considerable uncertainty, and is expected to be qualified following an external analysis of the current renovation rate being carried out in fall-winter 2025/26.
[48] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering

Expected future use of the building

If the building owner wishes to apply for an exemption due to a change in the use of the building or if it is to be demolished, the building owner needs to document this to the DEA as follows:

a) Demolition

If it is due to demolition, the building owner must submit documentation of this in the form of a permit that allows demolition (nedrivningstilladelse[49]), and in the case where a new building is to be constructed instead, a permit, which allows the usage of the building, (ibrugtagningstilladelse[50]) must be submitted. Both permits are granted by the relevant municipality, according to the Building Code[51].

b) Future use

If it is due to a change of the building's use/purpose, i.e. whether it changes from being an office to a residential building, this also needs to be documented via a permit for the change of use as well as a permit which allows for the usage.

The building owner can obtain these documents via the BBR or by contacting the relevant municipality.

For both of the scenarios above, a building that does not have a correctly updated BBR usage code, e.g. due to having previously changed the building's use/purpose, the building owner can contact the relevant municipality for corrections.

For more information, see the draft legislation "Lov om ændring af lov om fremme af energibesparelser i bygninger og forskellige andre love. (Indførelse af minimumsstandarder for energimæssig ydeevne, ændringer af energimærkningsordning, ordning for renoveringspas m.v.)".

Serious hardship of the building owner

Denmark is considering to allow for exemption caused by serious hardship via the following draft criteria which are still under development as part of the legislation process:

a) Liquidity problems

b) Bankruptcy

c) Serious illness

d) New owner/tenant (e.g. in the case of death of previous owner)

e) Force majeure (in cases of fire or storm surge)

[49] https://www.bygningsreglementet.dk/Historisk/BR18_Version1/Administrative-bestemmelser/BRV/Vejledning-om-byggesagsbehandling-efter-BR18/Nedrivning-af-bebyggelse

[50] https://www.bygningsreglementet.dk/Historisk/BR18_Version1/Administrative-bestemmelser/BRV/Vejledning-om-byggesagsbehandling-efter-BR18/Nedrivning-af-bebyggelse

[51] https://www.bygningsreglementet.dk/historisk/br18_version1/administrative-bestemmelser/krav/

For more information, see the proposed draft legislation "Lov om ændring af lov om fremme af energibesparelser i bygninger og forskellige andre love. (Indførelse af minimumsstandarder for energimæssig ydeevne, ændringer af energimærkningsordning, ordning for renoveringspas m.v.)".

Unfavourable cost-benefit assessment of relevant measures

If the building owner wishes to apply for an exemption due to an unfavourable cost-benefit assessment, the building owner must submit a current profitability assessment as documentation for all measures that are to be covered by an exemption from the MEPS requirements to the DEA. The DEA will then assess whether or not the building owner's documentation of the unfavourable cost-benefit assessment warrants an exemption for either the entirety of the building or only parts of it in accordance with what measures are assessed unfavourable. Furthermore, the DEA will estimate the equivalent savings to be achieved in the remaining part of the non-residential building stock. The DEA will add this data to an annual stock take of the development of the Danish building stock, which the DEA intends to carry out in order to keep track of the various targets, trajectories, etc. of the EPBD.

To document whether a measure to comply with the MEPS requirements is unfavourable or not, the building owner must provide a profitability assessment, cf. the rules on profitability in the Danish Building Code §274[52], or by presenting a valid EPC which shows that the building cannot profitably comply with the MEPS requirements. There are thus two options for documenting the profitability assessment.

If both an assessment according to the Building Code and an EPC are available, both of which assess the same measure, it is sufficient in the exemption application for just one of the calculations to show a lack of profitability.

Building code and profitability

The Building Code requires that energy saving measures must be implemented when a building part is renovated or rebuilt if it is profitable and does not entail a risk of moisture damage.

In the Building Code an energy saving measure is profitable if the measure has a simple payback period within 75 pct. of the measure's lifetime, corresponding to a profitability greater than a factor 1.33. This is a simple translation of the more complicated calculation in the cost-optimal calculation in the EPBD. The simplified calculation is introduced to make it possible for everybody to do the calculation since it only needs three inputs: cost, lifetime and savings. In the cost-optimal report[53] it is shown that this approach fulfils the Directive's requirement.

[52] https://www.bygningsreglementet.dk/historisk/br18_version8/tekniske-bestemmelser/11/krav/274_279/

[53] https://vbn.aau.dk/ws/portalfiles/portal/553979646/Cost-optimal_levels_of_minimum_energy_performance_requirements_in_the_Danish_Building_Regulations_3.pdf

[53] Among wall, roof, floor, window, other

EPC and profitability

As part of establishing an EPC, the energy consultant assesses the possible energy saving proposals, relevant for the specific building, based on a simple payback period, to list which measures are profitable in themselves (category 1) and which measures are only profitable if they are implemented in connection with a renovation or maintenance project (category 2).

The requirements for establishing an EPC in Denmark states that the investment of the proposed measure in the EPC must be repaid within the entire lifetime of the measure, corresponding to a profitability of more than 1. This calculation includes more costs than in the Building Code as it cannot be assumed that the measures are initially implemented in connection with a planned renovation project.

For more information, see the proposed draft legislation "Lov om ændring af lov om fremme af energibesparelser i bygninger og forskellige andre love. (Indførelse af minimumsstandarder for energimæssig ydeevne, ændringer af energimærkningsordning, ordning for renoveringspas m.v.)".

- **estimated share of exempted non-residential buildings**

Denmark has made an analysis of the estimated share of exempted non-residential buildings for the purpose of the draft NBRP. It is noted that the share may change over time once the actual MEPS requirements have entered into force in Danish legislation.

The analysis of the share of exempted non-residential buildings show that a growing number of non-residential buildings are exempted from requirements in Article 9(1) over time. In 2030 approximately 600 buildings, covering 995,000 m², can be exempted. By 2033 this can rise to approximately 1,200 buildings and nearly 2.0 million m². By 2040 the figure may increase further to 2,040 buildings and around 3.3 million m², and by 2050 it may rise to aproximately 10,660 buildings with a total floor area of 17.4 million m². Over the full period, this may correspond to aproximately 14,500 exempted buildings and nearly 23.7 million m² of floor area.

A breakdown by energy label (EPC) highlights that the exempted buildings are primarily concentrated in the lowest-performing categories, especially F and G in the early years. For example, in 2030, 445 buildings are in category G and 165 in category F, together accounting for almost 1.0 million m². By 2040 and 2050, however, the picture shifts: most exempted buildings are found in categories D and E, reflecting a gradual improvement of the building stock as efficiency standards rise. By 2050, 4,389 buildings are in category D and 1,736 in category E while the remaining exemptions are distributed among C, F, and G.

The corresponding floor area shows a similar trend with categories D and E together accounting for over 10 million m² by 2050. This shift indicates that, while the overall number of exemptions grows significantly towards 2050, the average energy label of exempted buildings improves from F/G in 2030 to D/E by 2050.

Table 15: *Estimated share of exempted non-residential buildings*

Year	**Number of buildings**	**Floor area** (1000 m^2)
2030	610	995
2033	1,208	1,969
2040	2,043	3,330
2050	10,658	17,378
Total	**14,519**	**23,672**

Table 16: *Number of buildings*

	2030	**2033**	**2040**	**2050**	**Total**
C				3,519	3,519
D			753	4,389	5,142
E		543	757	1,736	3,035
F	165	357	284	521	1,327
G	445	308	248	494	1,495
Total	**610**	**1,208**	**2,043**	**10,658**	**14,519**

Table 17: *Floor area (1000 m^2)*

	2030	**2033**	**2040**	**2050**	**Total**
C				5,738	5,738
D			1,228	7,156	8,384
E		885	1,234	2,830	4,949
F	269	582	464	849	2,164
G	725	502	405	805	2,437
Total	**995**	**1,969**	**3,330**	**17,378**	**23,672**

- **estimation of equivalent energy-performance improvements due to exempted non-residential buildings**

An estimation of the equivalent savings in 2030 may correspond to approximately 41 GWh (4 ktoe), rising to approximately 140 GWh (12 ktoe) by 2040. By 2050 it is estimated that approximately 666 GWh (57 ktoe) could be eligible for exemption and thereby possible equivalent savings. Over the full period, this may amount to approximately 925 GWh (80 ktoe).

Table 18: *Estimation of need for equivalent energy-performance improvements due to possible exemptions*

Year	**GWh**	**ktoe**
2030	41	4
2033	77	7
2040	140	12
2050	666	57
Total	**925**	**80**

Table 19: *Estimation of eligible excemptions according to energy perfomance*

	2030 (GWh)	**2033** (GWh)	**2040** (GWh)	**2050** (GWh**)**	**Total**
C				93	93
D			25	261	286
E		18	50	161	229
F	6	25	29	68	128
G	35	34	36	84	189
Total	**41**	**77**	**140**	**666**	**925**
In ktoe	4	7	12	57	80

Methodological assumptions

The estimations above are based on the following methodological assumptions:

- By 2040 and 2050 buildings heated with natural gas, oil and solid fuels are assumed to have converted away from natural gas, oil and solid fuels;
- Average floor areas for non-residential buildings are used for calculating energy savings;
- Buildings that are not economically viable to reach the MEPS thresholds are assumed to achieve 50 pct. of the required improvement (based on the DEA's professional assessment of what is most likely), i.e. a 50 pct. energy saving relative to the MEPS baseline;
- Technological development is assumed to lift 25 pct. of currently non-viable buildings to MEPS compliance between year 2025 and 2050.

Targets for expected primary and final annual energy consumption (ktoe):

o per building type:

The targets for primary energy consumption are set based on the development in the average energy consumption for the residential and non-residential building stock in order to achieve the target of a zero-emission building stock.

The target for final energy consumption is set using the data from Denmark's annual Climate Status and Outlook for 2025[54]. Data from the outlook has been compared to the roadmap for achieving zero-emission building stock in 2050 in order to set the targets to support achieving the 2050-goal. The targets for final energy consumption are slightly increasing as projections show a large number of new non-residential buildings being built in the coming years. The increase in m^2 is followed by an increase in final energy consumption, despite increased efficiency, resulting in a lower energy consumption per squaremeter. Due to the high level of energy performance of new buildings

[54] https://www.kefm.dk/klima/klimastatus-og-fremskrivning/klimastatus-og-fremskrivning-2025

and the continued improvement of the existing building stock, the goal of a zero-emission building stock is still expected to be met.

Table 20:

Code	Building Type	M/ Miav	Final energy consumption targeted in 2030, 2040 and 2050 (ktoe)	Primary energy consumption targeted in 2030, 2040 and 2050 (ktoe)
R	**Residential**	M	3,440	4,000
			3,270	3,900
	Out of which		3,240	3,300
(a)	*single-family houses of different types*	Miav	Not available in DK.	Not available in DK.
(b1)	*apartment blocks or multi-family buildings*	Miav	Not available in DK.	Not available in DK.
(b2)	*residential building unit in apartment blocks or multi-family buildings*	Miav	Not available in DK.	Not available in DK.
NR	**Non-residential**	M	1,860	1,600
	Out of which		2,030	1,300
			2,260	1,000
(c)	*offices*	Miav	Not available in DK.	Not available in DK.
(d)	*educational buildings*	Miav	Not available in DK.	Not available in DK.
(e)	*hospitals & healthcare buildings*	Miav	Not available in DK.	Not available in DK.
(f)	*hotels and restaurants*	Miav	Not available in DK.	Not available in DK.
(g)	*sport facilities*	Miav	Not available in DK.	Not available in DK.
(h)	*wholesale and retail trade services buildings*	Miav	Not available in DK.	Not available in DK.
(i)	*Other type (describe if any)*	Miav	Not available in DK.	Not available in DK.
T	**Total**		**5,300**	**5,600**
			5,300	**5,200**
			5,500	**4,300**

- **per end use**

Denmark's annual Climate Status and Outlook does, to some degree, disaggregate the consumption. This crude disaggregation is used to weight the distribution between the different end-uses going forward, based on the same distribution that was assumed in the outlook.

Table 21:

End use	**Primary energy consumption in Years 2030, 2040, 2050** (ktoe)			**Final energy consumption in Years 2030, 2040, 2050** (ktoe)		
Space heating	4,569	4,243	3,509	3,952	3,899	4,006
Space cooling	14	13	11	55	59	65
Domestic hot water	715	664	549	599	591	608
Ventilation	79	74	61	306	332	362
Built-in Lighting	82	76	63	125	138	153
Other Technical Building Systems	140	130	107	263	281	306
Total	**5,600**	**5,200**	**4,300**	**5,300**	**5,300**	**5,500**

Table 22:

Primary energy factors per energy carrier	**Non-Renewable (NREN) in Years 2030, 2040, 2050**			**Renewable (REN) in Years 2030, 2040, 2050**			**Total in Years 2030, 2040, 2050**		
District heating	0.11	0.10	0.09	0.76	0.67	0.68	0.87	0.76	0.77
Electricity	0.01	0.01	0.01	1.35	1.15	1.10	1.36	1.16	1.11
Gas	0.15	-	-	1.20	1.40	1.40	1.36	1.40	1.40
Biomasse	-	-	-	1.20	1.20	1.20	1.20	1.20	1.20
Oil	1.10	1.10	1.10	-	-	-	1.10	1.10	1.10

Expected energy savings:

- **per building type**

The energy savings have been calculated as the energy saving between the values reported for 2023 and the reported targets for 2030, 2040 and 2050. The increase in the final energy consumption for non-residential buildings is assumed to be mostly due to an increase in the build area, surpassing the decrease in consumption due to energy improvements. The calculated values can not be compared to the reporting for the EED as this is an oversimplified way of calculating and only shows a difference in consumption, not savings achived, which has a different definition.

Table 23:

Building type	**Savings in primary energy consumption in years 2030, 2040, 2050** (ktoe)			**Savings in final energy consumption in years 2030, 2040, 2050** (ktoe)		
Residential	-20	-120	-720	-141	-311	-341
Non-residential	-245	-545	-845	511	681	911
Total savings	**-265**	**-665**	**-1,565**	**370**	**370**	**570**

Note: Negative numbers represent a saving in accordance with the excel template. Positive numbers represent an increase in consumption.

Targets for the increase in the share of renewable energy in accordance with Article 15a of Directive (EU) 2018/2001

The shares of renewable energy in the building sector are based on the annual Danish Climate Status and Outlook of 2025[55]. A large part of the buildings is heated by district heating, and the input of RE in district heating affects the share.

Table 24:

Target in pct. (share of RE versus final energy consumption in the building sector)				
2026	**2027**	**2028**	**2029**	**2030**
71	75	77	78	79

Numerical targets for the deployment of solar energy in buildings:

Table 25:

Numerical targets for the deployment of solar energy	**M/ Miav**	**2030**		**2040**		**2050**	
		MW installed (pct.)	GWh generated (pct.)	MW installed (pct.)	GWh generated (pct.)	MW installed (pct.)	GWh generated (pct.)
Share of residential buildings equipped (M)	M	17	17	31	31	45	45
Share of non-residential buildings equipped (M)	M	12	12	22	22	32	32

[55] https://www.kefm.dk/klima/klimastatus-og-fremskrivning/klimastatus-og-fremskrivning-2025

Solar Thermal (Miav)	Miav	Not available in DK.	Not available in DK	Not available in DK	Not available in DK	Not available in DK	Not available in DK
Solar PV (Miav)	Miav	Not available in DK	Not available in DK	Not available in DK	Not available in DK	Not available in DK	Not available in DK
TOTAL	Miav	Not available in DK	Not available in DK	Not available in DK	Not available in DK	Not available in DK	Not available in DK

The current status for the deployment of solar PV has been linked to residential and non-residential buildings, using BBR data along with a division based on the size of the solar PV where a match with BBR data is not available. Data for the current status has been compared to the data provided in Section a) "Overview of the national building stock" to find the share of buildings equipped. The numerical targets for the deployment of solar PV are then based on the forecast for rooftop solar energy from Denmark's Climate Status and Outlook for 2025[39]. Since the data is regarding numbers of buildings equipped, the share of respectively MW installed and GWh generated are the same. The table above does only include solar PV and not solar thermal.

Targets for expected operational greenhouse gas emissions ($kgCO_2eq/(m^2.y)$):

- **per building type**

From 2033 only very limited emissions are expected from the operations of buildings as the energy supply will be almost completely based on renewable sources.

Table 26:

Code	**Building type**	**M/ Miav**	**Total GHG emissions in Years 2030, 2040, 2050** ($MtCO_2eq$)	**GHG emissions per m² in Years 2030, 2040, 2050** ($kgCO_2eq/(m^2.y)$)
R	**Residential** *Out of which*	M	0.4 0.2 0.1	1.1 0.5 0.3
(a)	*single-family houses of different types*	Miav	Not available in DK.	Not available in DK.
(b1)	*apartment blocks or multi-family buildings*	Miav	Not available in DK.	Not available in DK.
(b2)	*residential building unit in apartment blocks or multi-family buildings*	Miav	Not available in DK.	
NR	**Non-residential**	M	0.2	1.4

	Out of which		0.2 0.1	1.2 0.5
(c)	*offices*	Miav	Not available in DK.	Not available in DK.
(d)	*educational buildings*	Miav	Not available in DK.	Not available in DK.
(e)	*hospitals & healthcare buildings*	Miav	Not available in DK.	Not available in DK.
(f)	*hotels and restaurants*	Miav	Not available in DK.	Not available in DK.
(g)	*sport facilities*	Miav	Not available in DK.	Not available in DK.
(h)	*wholesale and retail trade services buildings*	Miav	Not available in DK.	Not available in DK.
(i)	*Other type (describe if any)*	Miav	Not available in DK.	Not available in DK.
T	**Total**		**0.6** **0.4** **0.2**	**1.2** **0.7** **0.4**

Targets for expected operational greenhouse gas emission reduction (pct.):

- **per building type**

The target for the expected GHG emission reduction pr. m^2 is based on the Danish Climate Status and Outlook 2025[56] and may thus change over time. Denmark does not perceive this as being a binding target, and it is only stated here in the draft NBRP as a preliminary projection.

Table 27:

Building type	**Expected reduction of annual operational greenhouse gas emissions** ($kgCO_2eq/(m^2.y)$)		
	2030	**2040**	**2050**
Residential	-3.94	-4.50	-4.77
Non-residential	-1.93	-2.09	-2.76
Total	**-5.88**	**-6.59**	**-7.53**

Note: Negative numbers represent a reduction in accordance with the excel template. Positive numbers represent an increase in emissions.

Targets for expected whole-life-cycle greenhouse gas emission ($kgCO_2eq/(m^2.y)$) in new buildings (optional indicator):

- **per building type**

In the political agreement that was signed in 2024, the anticipated limit values for 2027 and 2029 are indicated. The values are however tentative and will be subject to renegotiation:

[56] https://www.kefm.dk/klima/klimastatus-og-fremskrivning/klimastatus-og-fremskrivning-2025

Table 28:

	2025 (kg CO_2eq/m^2/year)	**2027** (kg CO_2eq/m^2/year)	**2029** (kg CO_2eq/m^2/year)
Summer homes, camping hut and similar under 150 m²	4.0	3.6	3.2
Summer homes, camping hut and similar over 150 m²	6.7	6.0	5.4
Single family houses and row houses	6.7	6.0	5.4
Multifamily houses and officebuild-ings	7.5	6.8	6.1
Other buildings	8.0	7.2	6.4

Expected wider benefits:

- **pct. reduction of people affected by energy poverty**

Denmark is still working on the social climate plan and the definition of energy poverty and vulnerable households as required by the Social Climate Fund Regulation. Figures or targets are therefore not available.

Table 29:

Reduction of people affected by energy poverty	**2030**	**2040**	**2050**
Use similar indicator(s) as in overview section	Not available in DK.	Not available in DK.	Not available in DK.

Expected implications on rent levels and public subsidies

Renovating existing residential buildings is likely to increase rent levels for private households due to the associated renovation costs. The Ministry of Employment administers social security payments, some of which are affected by housing expenses such as rent and utilities.

In Denmark private households with high rents relative to household income are eligible to receive a tax-free payment from the authorities as a rent subsidy[57]. If the Directive results in increased household rents, a greater number of households may qualify for the subsidy, and those already eligible may qualify for increased payments. Yet, there is a ceiling on the rent eligible for subsidies, and housing benefits are income-dependent. As a result, tenants' own share of the rent will also increase with increased household rents which can reduce their disposable income.

Additionally, the increased rents might affect the social security benefits paid to individuals eligible for public pension. The anticipated rise in rents is expected to increase expenditures on the

[57] https://www.retsinformation.dk/eli/lta/2021/229

elderly cheque as eligibility for this benefit is determined by households' liquid assets. Conversely, improvements in energy efficiency may reduce expenditures on the heating supplement for individuals eligible for public pensions as the supplement is dependent upon household heating costs.

The Member State's contribution to the Union's energy efficiency targets in accordance with Article 4 of Directive (EU) 2023/1791 attributable to its building stock's renovation (share and figure in ktoe)

This data is not available in Denmark at the moment.

- **The Member State's contribution to the Union's renewable energy targets in accordance with Directive (EU) 2018/2001 attributable to its building stock's renovation (share, MW installed or GWh generated)**

As mentioned previously in the draft NBRP, the share of renewable energy in the building stock was 73 pct. of the total energy consumption in 2024. The share was 71 pct. in 2021.

c) Overview of planned and implemented policies and measures

As previously mentioned, for a detailed description of policy measures, public financing and estimations of the effects of the measures put in place, Denmark refers to their latest National Energy and Climate Plan (NECP) of June 2024[58], especially Section A, paragraph 1-1.1.ii; Section A, paragraph 2-2.2.ii and Section A, paragraph 3-3.2.ii.

The following is a general description of the relevant policies and measures that support the implementation of the EPBD. See also previous descriptions on the Green Housing Agreement and the Danish Building Code in the background paragraph as well as the below description on Landsbyggefonden in paragraph d "empowering and protecting vulnerable customers and the alleviation of energy poverty, including policies and measures pursuant to Article 24 of Directive (EU) 2023/1791, and housing affordability".

Description of policy measures

Knowledge Centre for Energy savings in Buildings

The Knowledge Centre for Energy Savings in Buildings (Videnscenter for Energibesparelser i Bygninger - VEB[59]) collects and systematises knowledge about energy savings in buildings and communicates this especially to actors in the construction and energy sector but also to building owners. The purpose is to provide the performing craftsmen and consultants with the best possible conditions for carrying out cost-effective and correct energy renovations. The VEB develops, among other things, tools and teaching materials targeted at the vocational education[60]. This was

[58] https://ens.dk/globalt-samarbejde/national-energi-og-klimaplan-til-eu
[59] https://byggeriogenergi.dk/
[60] https://byggeriogenergi.dk/undervisning-i-byggeri-med-fokus-paa-energi

partly done, as a result of the study on the compliance of the Danish Building Code[61], in order to follow up on the analysis and recommendation number three, regarding enhanced focus on the teachings on energy requirements in the vocational education system, as well as upskilling the existing work force. The VEB is thus considered a part of the DEA's targeted information efforts in relation to the promotion of energy savings. The VEB is thus part of Denmark's implementation on the requirements in e.g. Article 9, 18 and 29 of the EPBD in relation to promoting the competencies of actors in the energy and building sector.

Financing and mortgage possibilities

Denmark has a well-functioning market for the financing of energy efficiency and building renovations. The financial regulatory framework does not prevent banks and mortgage credit institutions from offering dedicated loan products for green investments. Whether or not such products are made available is ultimately a commercial decision for each institution. These instruments contribute to ensuring that access to capital is not a primary barrier to undertaking energy efficiency improvements. The Danish financial sector is thus playing an active role in supporting national and European objectives on decarbonisation and energy transition.

Energy performance certificate scheme (relevant legislation)

Energy performance certification of buildings (EPC scheme)[62][63] requires that homes and commercial properties must be energy-labelled and receive an EPC when building, selling, renting and advertising buildings. This ensures that the buyer or tenant gets an overview of the energy condition of the building. This means that the market price of the building reflects the energy condition of the building to a greater extent. In addition, both parties get an overview of the costs of energy consumption and the potential savings via a list of profitable energy savings in the EPC which can thus be implemented at the most cost-optimal time. The EPC ensures an overview of building segments, including the least energy-efficient ones. There are currently over 600,000 energy-labelled buildings in Denmark (valid EPCs in 2023, see previous table with number of EPCs in Section a "Overview of the national building stock".

Energy performance certification companies must be certified and registered in order to be able to prepare energy labels. It is the companies' responsibility to ensure that energy consultants have the correct training. The training to become an energy consultant is a continuing education course that is taken in the general education system. Energy consultants must complete a training course and pass the associated exam in order to carry out energy labelling. The detailed rules for who can conduct energy labelling are set out in the relevant legislation.

[61] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering
[62] https://www.retsinformation.dk/eli/lta/2023/549
[63] https://www.retsinformation.dk/eli/lta/2023/548

Renovation Passport

Based on Article 12 in the EPBD, a new scheme for a Renovation Passport is being introduced in Denmark.

A Renovation Passport is information for the building owner that includes a possible renovation plan for the building. The Renovation Passport indicates, in a series of steps, which renovations can be carried out to achieve the status of a ZEB by 2050.

The Renovation Passport will be based on already available information in the EPC, which is being further developed, and introduced as a voluntary addition to the existing EPC scheme. The draft NBRP may be subject to amendments, including elements regarding the Renovation Passport, as the implementation of the EPBD into Danish law has not yet been presented to and approved by the Danish Parliament. Accordingly, changes that may occur prior to the final adoption of the law will be reflected in the final NBRP.

The framework for the Renovation Passport will be added and included in relevant legislation for the EPC scheme (see link in the section above).

Deduction for home improvement services (Håndværkerfradrag 2025)

From 1 January 2025 the deduction for home improvement services has been reintroduced with a green touch, allowing homeowners to deduct up to DKK 8,600 per person from taxable income for labour costs associated with specified energy-saving renovations and climate-proofing measures. The deduction is intended to stimulate sustainable home improvements.

Energy tax

As part of the *Green Tax Reform of 2022*, energy taxation is being gradually restructured so that taxes more directly reflect CO_2 emissions. The reform introduces a higher and more uniform CO_2 tax to be phased in towards 2030.

For fuels used for heating in buildings, such as oil and natural gas, the CO_2 tax will be DKK 350 per ton of CO_2 in 2025, increasing by DKK 80 annually to DKK 750 per ton in 2030 (2022 prices). For companies covered by the EU Emissions Trading System, the tax will be DKK 75 per ton of CO_2 in 2025, rising to DKK 375 per ton in 2030. The CO_2 tax will be indexed annually to developments in the net price index.

At the same time, the electricity tax has been reduced significantly, making electricity-based solutions, such as heat pumps and district heating, more attractive compared to fossil fuels.

Overall, the higher CO_2 tax and lower electricity tax provide economic incentives to switch from fossil-based heating to more energy-efficient and climate-friendly alternatives, thereby supporting the green transition of the building sector.

Information

Denmark carries out a number of information campaigns through Sparenergi.dk with the aim of supporting deep renovations and other energy-saving measures. A range of different communication initiatives provide homeowners and businesses with better opportunities to be informed on possibilities of how to renovate and improve their building's energy performance.

Sparenergi.dk is the DEA's initiative, providing free, impartial energy advice to private homeowners. While it serves the general public, attention is given to assisting low-income households and vulnerable groups as these groups can receive support in understanding and accessing public grants and schemes. The platform also offers guidance on energy consumption, heating methods, financing and energy labelling. The aim is to help homeowners reduce energy costs and also improve indoor climate which is especially crucial for vulnerable groups facing financial strain. Sparenergi.dk collaborates with municipalities and other stakeholders to reach target groups and ensure they receive the necessary support and information.

As part of the DEA's communication campaigns, the DEA has launched the information campaign "Good Energy for Every Occasion", targeted at residents in social housing apartment buildings. The purpose of the campaign is to help particularly financially vulnerable tenants save energy and reduce their expenses for electricity and heating[64].

Through the EPC scheme, a building owner can see the energy performance of their respective building as well as relevant recommendations for energy saving measures. This enables the building owner to more easily identify which energy saving measures and energy renovations that are most cost efficient for their respective building.

The EPC scheme can also be accessed via Sparenergi.dk[65] where it is possible to look up an address and see the building's current EPC.

Information on energy savings and energy renovations as well as subsidy possibilities, targeted towards residential building owners, is available via Sparenergi.dk[66]. The subsidy scheme is described later in this Section c and is targeted at buildings with the lowest EPCs (D–G).

In addition, information is available on Sparenergi.dk on how homeowners may possibly calculate and apply for a green loan of up to DKK 250,000 for energy renovations. This loan carries a lower interest rate than regular bank loans[67]. See also the description of financing and mortgage possibilities under Section c.

Furthermore, see Section c, paragraph e below for a description of the Danish one-stop shop.

[64] https://sparenergi.dk/partner/god-energi-til-enhver-lejlighed-materialepakke#:~:text=Energistyrelsen%20har%20udviklet%20en%20m%C3%A5lrettet%20adf%C3%A6rdskampagne%20%22God,og%20skrue%20ned%20for%20udgifterne%20til%20el

[65] https://sparenergi.dk/privat/spar-energi-med-boligens-energimaerke

[66] https://sparenergi.dk/energirenoveringspuljen

[67] https://sparenergi.dk/privat/overvejer-du-faa-et-groent-laan

a) the identification of cost-effective approaches to renovation for different building types and climatic zones, considering potential relevant trigger points in the life-cycle of the building

Denmark's Building Codes emphasises cost-effective energy renovations at natural intervention points in a building's life-cycle. The BR18 include a general requirement that, when an existing building undergoes renovation, the affected building elements must be upgraded with additional insulation if it is economically feasible. This requirement is in force for both major renovations and smaller renovations.

This policy ensures that energy efficiency improvements are integrated whenever significant work is done on a roof, exterior wall, floor or another envelope component. The guidance on cost-effective insulation (Vejledning om rentabel efterisolering[68]) details these requirements and the conditions under which they apply.

Not all works trigger the requirement; minor repairs – for example, replacing a few roof tiles, patching small areas of facade or repainting – are not covered by the requirement as these activities are considered maintenance and not renovation. In contrast, more substantial renovations, such as installing a new roof covering or new facade cladding (classified as *"*ombygning*"*, or remodeling), do invoke the insulation rule. If an entire building part is fully replaced (e.g. tearing down and rebuilding a whole roof or floor structure), the new construction must meet current insulation standards in full, regardless of payback time. In other words, a like-for-like replacement is not sufficient; it must comply with current energy performance requirements in accordance with BR18 §279. By linking insulation upgrades to these trigger points (repairs vs. renovation vs. replacement), the regulation targets cost-effective opportunities over a building's life-cycle without imposing undue burdens for trivial works.

To determine cost-effectiveness, the Danish building regulation provides two alternative methods: a simplified lookup via reference examples or a project-specific economic calculation. The guidance offers a catalogue of typical building assemblies in older buildings and indicates whether adding insulation in a given scenario would be profitable over the measure's life. This is based on calculated energy savings, investment cost and the remaining life of the building element. For instance, it is noted that for buildings constructed before 1979 (before modern insulation standards were introduced), adding insulation during renovation is almost always financially advantageous due to the large energy savings achieved on poorly insulated envelopes. In such cases, if the existing insulation thickness is below certain threshold values given in the examples, the building owner is required to insulate up to the level specified by the current code (i.e. to achieve the U-value targets in BR18 §279).

[68] https://www.bygningsreglementet.dk/media/dccb5w5s/vejledning-om-rentabel-efterisolering-a.pdf

The regulation thus enforces the "cost-optimal" level of renovation: poorly insulated elements must be upgraded because the investment pays for itself through energy savings. Conversely, if the reference example (or a detailed calculation) demonstrates that additional insulation would not be cost-effective for a specific case, the owner may document this and is not obliged to proceed with that insulation measure. This pragmatic system prevents wasted investments while ensuring that economically justified energy upgrades are not missed at key renovation milestones.

The policy instrument at work here is the Building Code's energy upgrade requirement (BR18 §§274 and 279, with the 2022 "Vejledning om rentabel efterisolering") which ensure that, whenever buildings undergo significant renovation, energy efficiency improvements are pursued at the optimal moments. This approach is in line with the EU principle of cost-optimality in building renovation, driving both energy savings and financial savings for building owners over the long term.

b) national minimum energy performance standards pursuant to Article 9 and other policies and actions to target the worst-performing segments of the national building stock, including safeguards as referred to in Article 17(19)

Article 9(1) – MEPS

As described in the introduction as well as in Section b and c, Denmark has various political agreements, legislation and policy measures which support energy savings and energy renovations in buildings.

In regards to the implementation of Article 9(1), it is especially the Building Code, the business scheme (Erhvervspuljen), the EPC scheme, the VEB, Sparenergi.dk and the Danish one-stop shop which support the enabling of MEPS in Denmark as described below and above in various paragraphs in Section c.

It is highlighted that the following description of the legal framework, rules of compliance, the enabling framework, monitoring mechanism and penalty scheme concerning MEPS in Denmark are still under development. The draft NBRP may be subject to amendments, including elements regarding MEPS, as the implementation of the EPBD into Danish law has not yet been presented to and approved by the Danish Parliament. Accordingly, changes that may occur prior to the final adoption of the law will be reflected in the final NBRP.

For more information, see the draft legislation "Lov om ændring af lov om fremme af energibesparelser i bygninger og forskellige andre love. (Indførelse af minimumsstandarder for energimæssig ydeevne, ændringer af energimærkningsordning, ordning for renoveringspas m.v.)".

The DEA has been delegated the competent authority to carry out tasks to ensure the compliance with MEPS in Denmark.

The draft legislation "Lov om ændring af lov om fremme af energibesparelser i bygninger og forskellige andre love. (Indførelse af minimumsstandarder for energimæssig ydeevne, ændringer af energimærkningsordning, ordning for renoveringspas m.v.)" states that the owner of a non-residential building must ensure that the individual building meets the applicable MEPS expressed as a minimum threshold value measured in kWh/m^2 pr. year. The maximum threshold value and the deadlines for when it must be met will be set in an executive order that will enter into force simultaneously with the law. The deadlines and the threshold will follow the rules in the Directive. This means that requirements will be set according to which the non-residential building must live up to the MEPS threshold by no later than 1 January 2030, 1 January 2033, 1 January 2040 and 1 January 2050. The two thresholds for 2040 and 2050 are, as of now, not binding thresholds, seeing as circumstances may change over the course of the next 25 years. For more information, see the draft legislation "Lov om ændring af lov om fremme af energibesparelser i bygninger og forskellige andre love. (Indførelse af minimumsstandarder for energimæssig ydeevne, ændringer af energimærkningsordning, ordning for renoveringspas m.v.)".

In the draft legislation, "Lov om ændring af lov om fremme af energibesparelser i bygninger og forskellige andre love. (Indførelse af minimumsstandarder for energimæssig ydeevne, ændringer af energimærkningsordning, ordning for renoveringspas m.v.)", it is stated that the EPC will serve as identification and documentation of whether a building complies with the MEPS threshold. It is thus also data from the EPC database as well as the BBR which Denmark uses to identify the buildings that could be at risk of not complying with the MEPS thresholds. For more on this, see the description on qualitative elements in Section a "Overview of the building stock".

In order to check the building's compliance with the MEPS thresholds, the individual building owner can have an EPC made or engage with an energy consultant or other type of technical advisor. Similarly, in order to check the compliance of a building, the DEA will request a valid EPC from the building owner. Denmark considers the EPC to be the most transparent information available on the building's energy performance. Furthermore, the EPC scheme and the use of EPC data is well known to both building owners, public authorities and professional actors in the energy and building sector. This is also one of the reasons why Denmark has chosen to conduct compliance assessments based on this scheme.

The DEA will further provide information for building owners via the Agency's relevant website, stakeholder meetings and as part of the public hearing of relevant legislation. It is expected that the information on the DEA's relevant website will contain e.g. various cases, illustrating different types of buildings and energy saving and energy renovation measures. This however is still in development and can be further described in the final NBRP. Furthermore, EPCs carried out from 29 May 2026 and onwards will include information on the building's energy performance, stated in kWh/m^2, which will also provide the building owner relevant information on how to ensure compliance with the MEPS demands.

Denmark expects to carry out risk-based compliance checks after the deadline of compliance of the MEPS thresholds, i.e. after 1 January 2030, 1 January 2033 etc., as well as doing annual stock take of the development of the energy consumption in buildings via the DEA's annual Energy Production and Consumption Statistics[69], the Danish Climate Status and Outlook[70] and the EPC database[71].

If the DEA assesses that a valid EPC shows non-compliance with the MEPS thresholds, the DEA can issue an injunction with a deadline for compliance. If this injunction is not complied with, the DEA can file a police report and eventually end up with the relevant court issuing a penalty. In the draft legislation "Lov om ændring af lov om fremme af energibesparelser i bygninger og forskellige andre love. (Indførelse af minimumsstandarder for energimæssig ydeevne, ændringer af energimærkningsordning, ordning for renoveringspas m.v.)" the possibility of issuing penalties, which take into account the financial situation and access to adequate financial support of homeowners, in particular for vulnerable households in accordance with Article 9 (7) and Article 34 of the EPBD, is stated.

Article 9(2) – National trajectory for the progressive renovation of the residential building stock

Denmark has set the targets and indicators for the national trajectory for the progressive renovation of the residential building as described in Section b "Roadmap for 2030, 2040 and 2050".

To enable the achievement of the trajectory, Denmark relies on the various political agreements, legislation and policy measures, which support energy savings and energy renovations in buildings, as described in the introduction as well as in Section c.

In regards to the implementation of Article 9(2), it is especially the Building Code, the various subsidy scheme, targeted renovation and decarbonisation of residential buildings, the VEB, Sparenergi.dk and the Danish one-stop shop, which support the enabling of the trajectory in Denmark, as described in Section c. In addition, the EPC scheme is expected to continue to play a role in making the energy performance of buildings visible. Furthermore, the introduction of a voluntary scheme for a Renovation Passport (in continuation of the EPC) may have an impact on the implementation of renovations.

The DEA will conduct an annual stock take of the development of the energy consumption in buildings via the DEA's annual Energy Production and Consumption Statistics[72], the Danish Climate Status and Outlook[73] and the EPC database[74].

[69] https://ens.dk/analyser-og-statistik/maanedlig-og-aarlig-energistatistik
[70] https://www.kefm.dk/klima/klimastatus-og-fremskrivning
[71] https://emoweb.dk/emodata/test/
[72] https://ens.dk/analyser-og-statistik/maanedlig-og-aarlig-energistatistik
[73] https://www.kefm.dk/klima/klimastatus-og-fremskrivning
[74] https://emoweb.dk/emodata/test/

c) the promotion of deep renovation of buildings, including staged deep renovation

See the description of information efforts and the Danish one-stop shop above and below in Section c as well as the description of the subsidy scheme for residential buildings (Energirenoveringspuljen) and the business scheme (Erhvervspuljen) below in this section for efforts promoting deep and staged deep renovations.

The DEA has launched a campaign, targeting residential building owners with an energy label of D-G. The Campaign has been disseminated via email, outlining which energy renovation measures would be most cost-effective in their specific case, to building owners of a building with an EPC D-G. They will thereby receive a list of the energy renovation projects that would provide the greatest benefits, in terms of reducing energy consumption and saving money on energy bills.

Se also the description of the Danish Building Regulation and Building Code in the background paragraph in the beginning of the draft NBRP.

Subsidy Schemes

Denmark promotes a range of subsidy schemes with the aim of providing economic incentives for e.g. deep renovations.

The Energy Renovation Scheme (Energirenoveringspuljen)

Through the Energy Renovation Scheme, owners of buildings intended for year-round personal use can apply for funding with the aim of improving the energy efficiency of the building. Funds can be granted for certain insulations of the building, installing energy efficient windows or installing energy-saving ventilation. The scheme is directed towards the lowest EPCs (D-G).

Approximately 39 mEUR has been allocated for this scheme from 2023 to 2026.

Further information about the Energy Renovation Scheme can be found here[75].

The Heat Pump scheme (Varmepumpepuljen)

Owners of buildings intended for year-round personal use can apply for funding to replace either oil-, gas- or pellet boilers or electrical heating with an electrical heat pump. Applicants may only receive funding if the building in question is located outside of an area designated or planned to be designated for district heating.

Approximately 102.5 mEUR has been allocated for this scheme from 2023 to 2026.

Further information about the Heat Pump Pool can be found here[76].

[75] https://sparenergi.dk/privat/soeg-tilskud/varm-op-til-soege-tilskud-til-energirenovering/har-du-spoergsmaal and in the regulatory framework: https://www.retsinformation.dk/eli/lta/2025/143

[76] https://sparenergi.dk/privat/soeg-tilskud/varm-op-til-soege-tilskud-til-en-varmepumpe/faq-varmepumpepulje and in the regulatory framework: https://www.retsinformation.dk/eli/lta/2025/805

The District Heating scheme (Fjernvarmepuljen)
This scheme provides funding for expanding district heating into new areas and converting oil- and gas boilers to energy efficient district heating. District heating companies are responsible for applying for the funds, which must be used to lower the overall costs for the customers, that will be connected to the new district heating grid.

Approximately 252 mEUR has been allocated for this scheme from 2021 to 2025.

Further information about the District Heating Scheme can be found here[77].

The Scrapping Scheme (Skrotningsordningen)
This scheme allows eligible private companies to offer subsidised electrical heat pumps on a subscription basis. The customer must convert from either an oil-, gas- or pellet boiler. The funding is primarily used to lower the initial costs of conversion for the customer. The scheme aims at providing an extra option to convert to heat pumps for private citizens, who are either not capable of covering the initial cost of purchase for a heat pump or would rather have a heat pump on subscription, where installation and service for the heat pump is included.

Approximately 23.5 mEUR has been allocated to this scheme from 2020 to 2026.

Further information about the Scrapping Scheme can be found here[78].

The Business Scheme (Erhvervspuljen)
The Business Scheme provides funding for projects that help private businesses save energy or reduce their CO_2-emissions. The purpose of the scheme is to speed up green transition in private businesses by covering up to 50 pct. of the applicant's eligible investment costs. The scheme is technology neutral, and most private businesses in Denmark are eligible to apply. The Business Scheme opened for applications in 2020 and runs until 2029 and has a total budget of around 450 mEUR. All relevant information is available on the scheme's website[79]. The administrative order can be found here[80].

Deduction for home improvement services (Håndværkerfradrag 2025)
From 1 January 2025 the deduction for home improvement services has been reintroduced with a green touch, allowing homeowners to deduct up to DKK 8,600 per person from taxable income for labour costs associated with specified energy-saving renovations and climate-proofing measures. The deduction is intended to stimulate sustainable home improvements.

[77] https://ens.dk/tilskud-og-puljer/fjernvarmepuljen and in the regulatory framework: https://www.retsinformation.dk/eli/lta/2025/796
[78] https://ens.dk/tilskud-og-puljer/skrotningsordningen and in the regulatory framework: https://www.retsinformation.dk/eli/lta/2025/806
[79] https://sparenergi.dk/erhvervspuljen
[80] https://www.retsinformation.dk/eli/lta/2025/1014

d) empowering and protecting vulnerable customers and the alleviation of energy poverty, including policies and measures pursuant to Article 24 of Directive (EU) 2023/1791, and housing affordability

In Denmark a wide range of initiatives exist in the area of social and housing policy, aimed at improving conditions for vulnerable groups. In addition, different schemes and funding programmes exist in the energy sector, designed to promote energy efficiency, under which vulnerable groups may receive support. Se the measures listed under Section c above and below. In addition to the measures referred to under Section c, the following measures should also be highlighted:

Landsbyggefonden (The National Building Fund)

Landsbyggefonden[81] is a Danish national revolving housing fund, established by law, that supports the non-profit housing sector through financial means. A key focus is to ensure that energy efficiency renovations also benefit vulnerable and low-income households, preventing social exclusion linked to rising housing costs. The fund provides financing of large-scale renovations and green upgrades in non-profit housing while safeguarding affordability through subsidy schemes, keeping rents in the renovated buildings affordable. Particular attention is given to disadvantaged neighbourhoods where investments combine physical improvements with social initiatives. By targeting resources to where the needs are greatest, the fund contributes to preventing energy poverty, improves standards of affordable housing and fosters social cohesion. In this way, Landsbyggefonden plays a central role in achieving energy targets, while simultaneously protecting vulnerable groups and promoting a just transition in line with EU policy objectives.

e) the creation of one-stop shops or similar mechanisms pursuant to Article 18 for the provision of technical, administrative and financial advice and assistance

In Denmark the task of providing citizens with free technical, administrative and financial advice and guidance on how to save energy in their daily lives is, as previously mentioned, carried out primarily through the website Sparenergi.dk. This is in line with the Danish policy on public services which, to a wide degree, aims to deliver public services digitally. This allows the services to always be readily available.

Here, citizens can consult the website for various pieces of advice on how to achieve good habits on how to save energy in their day-to-day lives. In addition, citizens can consult the website for several types of renovation which can be done, covering everything from improvements of roof and ceiling, windows and doors, floors and basement etc. For each type of improvement, various parameters can be adjusted according to the specific residential building the citizen is looking to replace, e.g. what type of existing window is changed to what type of new window, what the heating source is as well as the size of the area the room is. Thereby, a calculation of the typical saving

[81] https://lbf.dk/

is automatically adjusted, getting a typical price in DKK per year which the citizen would typically save by investing in this type of improvement. Moreover, there are various cases with different types of housing, built in different periods of time, where citizens can compare their own house to the type and time period the house was built in. Here, citizens can see the history of this specific type of housing with general characteristics about its construction, climate envelope and original heating source typically built at the time. Alongside this historical description, there are general recommendations to energy performance improvements for these types of houses and how much such a house can typically improve its EPC class to, with a link to see what an individual's specific EPC is for their own house (if an EPC exists).

Further, if a citizen wants to explore the options to change their heating source, the citizen can enter their address to learn whether they are in an area to be covered by district heating or not, different suggestions to change to individual heating sources as well as what the estimated investments and yearly savings these heating sources would entail. Furthermore, the website offers information about EPCs where one can write a relevant address to verify whether the address has an EPC, what the label of the building is as well as read the concrete advice in the EPC report on how to improve the energy performance of the building. If the citizen in question wants to learn about relevant financing provided by the government, there is information about the relevant financing schemes which the citizen can apply for, such as the Energy Renovation Scheme and the Heat Pump Scheme.

Moreover, citizens can call or write to an independent advisory service, receiving individual guidance on how to save energy as well as the various types of renovations one can do to improve the energy performance of the building. The telephone advisory service places particular focus on households, SMEs, micro-enterprises and public bodies. The advice may be based on the material already available on Sparenergi.dk where calculators and tools provide guidance on the specific savings potential related to energy renovation.

Finally, the DEA organises a number of public meetings held across the five regions of Denmark where citizens can meet in person to receive individual advice on what they can do to reduce their energy consumption.

f) the decarbonisation of heating and cooling, including through district heating and cooling networks, and the phasing out of fossil fuels in heating and cooling with a view to a complete phasing out of fossil fuel boilers by 2040

In regards to policies and measures for the decarbonisation of heating and cooling, Denmark would like to firstly refer to the Danish comprehensive assessment of 2024 pursuant to Article 25 (1) in

the EED recast. In chapter two, page 23-31, policies and measures regarding the heating and cooling sector in Denmark are mentioned. The assessment was submitted with the final update of the Danish NECP[82].

Secondly, Denmark would like to refer to the final update of the Danish NECP of 2024. In chapter 2 and 3 policies and measures regarding the heating and cooling sector are mentioned among other policies and measures for other sectors[83].

Lastly, Denmark would like to refer to initiatives regarding local heating and cooling planning on a municipal level. In 2022 Denmark obliged all Danish municipalities to make heat plans for existing gas supplied areas with the purpose of speeding up the phase-out of gas in domestic heating as well as to provide information to all citizens on the outlook for district heating in their area[84]. In 2025 Denmark adopted legislation for municipal cooling planning[85].

With regards to the national phase-out plan for fossil fuel boilers by 2040, Denmark refers to the Commission's guidance note, *Fossil fuel boilers (Article 13, Annex II)*, and the proposed methodology for the following section.

Measures for full decarbonisation of the gas grid by 2040 to the extent it will be used to heat or cool buildings in 2040

With its Climate Agreement on Green Electricity and Heat of June 2022, the Danish Government has set forth an ambition to achieve a full green gas supply by 2030. With current and planned policy this ambition is estimated to be met in 2032[86] through phasing out gas consumption especially in domestic heating and replacing natural gas in the gas grid with domestically produced biomethane.

In relation to implemented policies and measures for achieving a decarbonised gas grid by 2032, Denmark would like to refer to Section 2.1.2; 3.1.2 and 3.3 in the final update of the Danish NECP of 2024 for a detailed description of the policies regarding decarbonisation of the gas grid, including the phase-out of gas boilers in individual housing.

According to the Climate Agreement on Green Electricity and Heat of June 2022, the Danish Government should in 2026 present possible options for new initiatives and financing required to meet the political ambitions of phasing out fossil fuel gas boilers for domestic heating by 2035 and achieving a decarbonised gas grid by 2030.

[82] https://ens.dk/media/6142/download
[83] https://ens.dk/media/6128/download
[84] https://www.retsinformation.dk/eli/retsinfo/2022/10081
[85] https://www.retsinformation.dk/eli/lta/2025/736#P1
[86] Danish Ministry of Climate, Energy and Utilities (2025), *Climate Status & Forecast Report, chapter 28, p.7*

Estimated share of boilers in 2040 that would be burning renewable fuels

Following the adoption of the Climate Agreement on Green Electricity and Heat of June 2022, the Danish gas distribution system operator, Evida, has reported that around 95,000 private gas customers, accounting more than a fourth of the customers, have already disconnected from the gas grid from January 2022 to September 2025.

Projections show that Denmark will have a boiler fleet of 36,000 in 2040 – down from approx. 330,000 in 2023 – and 215,000 in 2030[87]. As outlined in the previous section, Denmark projects to have full biomethane supply in the Danish gas grid by 2032. Therefore, the remaining boiler fleet will be defined as using renewable gas and not as fossil fuel boilers.

In relation to oil fired boilers, projections made under the same policy, economic and technical assumptions show that the Danish oil boiler fleet will be phased out by 2035 from around 24,000 in 2030.

Denmark would like to refer to Section 3.2 and 3.3 in the final update of the Danish NECP of 2024 for detailed description of the policies for phasing out boilers in heating.

Plan for phasing out the remaining boilers that would be burning fossil fuel in 2040

In the previous sections it has been outlined that the most recent projections, based upon current measures and policies, show that no boilers in Denmark will be defined as fossil fuel boilers in 2040.

g) prevention and high-quality treatment of construction and demolition waste in accordance with Directive 2008/98/EC, in particular as regards the waste hierarchy, and the objectives of the circular economy

To decrease the amount of construction and demolition waste and to support the construction sector in a more circular transition, Denmark has established regulations[88] on selective demolition. After a transition period of one year, the rules entered into force on 1 July 2025. Selective demolition refers to the full or partial dismantling of buildings of 250m^2 or above, in a manner that allows construction materials to be separated and sorted during the process. As a result, all materials must be identified, separated and sorted to enable their reuse or recycling in applications that remain as close as possible to their original purpose. To ensure compliance, it is mandatory to appoint an authorised and properly educated environment and resource coordinator, responsible for preparing and overseeing the demolition plan. The aim is to minimise the loss of value and thereby secure the highest possible degree of reuse and recycling according to the waste hierarchy. At the same time, materials containing hazardous substances are identified and removed to be

[87] Ibid.
[88] https://www.retsinformation.dk/eli/lta/2024/496

treated or disposed of responsibly. In this way, buildings are increasingly dismantled rather than destroyed.

In the calculation for life-cycle GWP in the building code, recycled building products are calculated as 0 kg CO_2eq to help push for more recycling.

h) the promotion of renewable energy sources in buildings in line with the indicative target for the share of energy from renewable sources in the building sector laid down in Article 15a(1) of Directive (EU) 2018/2001

See the previous descriptions of decarbonisation and energy efficiency measures in Section c as well as the Danish NECP, especially Section A, paragraph 1-1.1.ii; Section A, paragraph 2-2.2.ii and Section A, paragraph 3-3.2.ii.

i) the deployment of solar energy installations on buildings

Denmark intends to implement the requirements of Article 10 in line with the EPBD including:

- rollout of solar energy installations on different categories of buildings (new and existing) if technically suitable and economically and functionally feasible;
- design of new buildings;
- national criteria for practical implementation, including for protected and historical buildings;
- integration of solar and storage.

The necessary policies and measurements have not yet been implemented in national regulation. The new requirements are expected to be brought into force in the Building Regulations 2018 (BR18) by 29 May 2026.

j) the reduction of whole-life-cycle greenhouse gas emissions for the construction, renovation, operation and end of life of buildings and the uptake of carbon removals

The CO_2-eq limit values for new buildings, as mandated in the political agreement from May 2024[89], are expected to be tightened every second year. This will, over time, enhance the optimisation of new buildings to lower their emissions.

A tightening of the limit values will, furthermore, push the market for construction products to lower their emissions and in that way lower the emissions from renovations too.

In Denmark there is currently political focus on how to minimise demolition and remove barriers for renovations.

[89] https://www.sm.dk/Media/638560336830794358/Till%C3%A6gsaftale_om_stramning_af_CO2e-krav_til_bygninger_UA.pdf

With the tightening of the limit values in July 2025 (differentiated values for different building types with an average value of 7.1 kg CO_2-eq pr. m^2), the requirements for the energy performance for transformations towards use of the building that involve a higher energy use were lowered, to support the use of existing buildings for other purposes than originally intended and, in that way, motivate renovation instead of demolition. The requirements for transformation of use are aligned with the requirements for major renovations.

k) the promotion of district and neighbourhood approaches and integrated renovation programmes at district level, which may address issues such as energy, mobility, green infrastructure, waste and water treatment and other aspects of urban planning and may take into account local and regional resources, circularity and sufficiency

On a district level (the municipalities and regions in Denmark), there are different programmes to promote energy, mobility etc. One of which is "Klimaalliancen"[9091] which is an initiative where all the participating municipalities in Denmark vonluntarily have prepared and are now implementing a climate action plan according to the standards of the international C40 network. The plans originate from the partnership "DK2020" which was the precursor of the new initiative.

Another initiative is the regions' strategy for sustainable hospitals, in which the five Danish regions set a common goal to reduce hospitals' consumption-based CO_2 emissions by 50 percent in 2035 compared to 2022[92]. Before 2050 it is also the regions' ambition to become CO_2 emission-free. "Energy, transport and buildings" is one of three paths of action in the strategy. The two others are "Procurement" and "Circular economy and behaviour".

Some municipalities[93] have also implemented subsidy schemes, targeted house owners, where it is possible to get funding from the municipality to update the EPC of the house on a voluntary level.

Furthermore, the DEA offers the tool "Energi- og Bygningsanalysen"[94] (The Energy- and Buildings Analysis) free of charge for all municipalities. The tool has different functions, but one of them is that the municipality is able to send out digital mail to different kind of home owners through segmentation of buildings. An example of this is that all the home owners in the municipality, who has an oil boiler as heating source, can get a letter from the municipality about the benefits of changing their heating source and how to, for example, apply relevant subsidy schemes.

[90] https://www.regioner.dk/regional-udvikling/klima-og-baeredygtighed/klimaalliancen/
[91] https://www.kl.dk/klima-og-erhverv/klima/klimaalliancen
[92] https://www.regioner.dk/regional-udvikling/groenne-hospitaler/
[93] https://www.naestved.dk/bolig-og-miljoe/byg/energirenovering-og-tilskud
[94] https://bygningsanalysen.dk/

The letter/digital mail is specific to the house, and it is possible to provide a link to Sparenergi.dk, the digital one-stop shop run by the DEA.

l) the improvement of buildings owned by public bodies, including policies and measures pursuant to Articles 5, 6 and 7 of Directive (EU) 2023/1791

Denmark will ensure compliance with the requirements of the EED, regarding the renovation of public sector buildings through an agreement on joint efforts on energy efficiency in public buildings[95] between the Danish Ministry of Climate, Energy and Utilities; Danish Municipalities (KL) and Danish Regions, as previously described in the introduction. The agreement establishes a joint framework, covering governmental (state), regional and municipal buildings, with a common target to designate approximately 3.9 million m² of public building floor area for renovation by 2030 to be upgraded to at least EPC class B (current NZEB level in Denmark) by 2040. This corresponds to the annual renovation of 3 pct. of the relevant building stock, as required under Article 6 EED.

Implementation will be carried out in a flexible and cost-efficient manner whereby state authorities, municipalities and regions may contribute jointly to the 3 pct. annual target. Renovations will be prioritised in terms of performance and cost-efficiency and, where possible, ensuring synergies with the MEPS requirements under Article 9(1) in the EPBD. Supporting measures include digital tools for building stock management (Energy and Building Analysis[96] and Tjekenergimærke[97]) and a simplified EPC update.

Annual reporting to the DEA will ensure transparent monitoring of progress, complemented by a mid-term review in 2027. Furthermore, the parties have agreed to establish a cooperation forum to follow up on the agreement and to address future requirements, including the implementation of the revised EPBD and initiatives on data-driven energy management etc. This governance structure ensures that energy renovations in public buildings contribute both to the national climate objectives and to the fulfilment of EU obligations while making the public sector a role model in energy efficiency.

m) the promotion of smart technologies and infrastructure for sustainable mobility in buildings

Smart Readiness Indicator

Regarding the Danish activity around the Smart Readiness Indicator (SRI), a non-binding national testing phase has been carried out during 2022. The Danish test phase was led by the DEA in cooperation with the Danish Technological Institute[98] (DTI). The purpose was to investigate potentials and opportunities for the SRI in a Danish context. Assessors from DTI conducted the SRI

[95] Cooperation agreement
[96] Energy and Building Analysis
[97] https://tjekenergimaerke.emoweb.dk/
[98] https://www.teknologisk.dk/

assessment for 25-30 buildings, including offices, dwellings, multi-family homes, educational institutions – old and new – and with different energy supplies. A report has been prepared in connection with the test phase. The report[99] provides a brief introduction to the indicator and reviews the results of the tested buildings. In addition, experiences and conclusions from the specific tests are presented.

Utility Digitalisation Programme

The Utility Digitalisation Programme has been established to create uniform and easy access to data from the utility sector and support better utilisation of resources and infrastructure across value chains and utility types[100]. The programme is part of Denmark's digitalisation strategy[101], adopted in 2024, and has received funding of approx. 9.5 million euros in the period 2024-2027.

The programme has established a partnership between authorities, the utility sector, and data users to set the direction for digitalisation. The programme will develop frameworks and regulations for how data in the utility sector is collected, structured, and made accessible. This includes initiatives such as identifying new digital opportunities, standardisation regarding data models, data formats, metadata and ways to access data, e.g APIs, and adjustments to the national legislation to ensure the necessary rules regarding access to data from the utility sector, e.g the consumers access to data on their energy consumption. Initially, the programme will focus on data in the electricity, heating and water sectors.

Easy access to uniform utility data with few legal barriers is a key part of a cost-efficient rollout of smart technologies and infrastructure for sustainable mobility in buildings, e.g building management systems. It therefore supports the implementation of the EPBD by laying the foundation needed to promote smart technologies in buildings and energy efficiency. The programme will develop initiatives throughout its duration (2024-2027), with implementation occurring continuously, subject to the necessary political support.

Sustainable mobility

Denmark intends to implement the EPBD provisions to integrate electric vehicle (EV) charging infrastructure and concrete demands for number of bicycle parking spaces into building design, as part of efforts to decarbonise the transport sector. From 2026, new buildings and major renovations with on-site parking must include EV charging facilities (i.e. a number of operational recharging points along with pre-cabling conduit infrastructure for future chargers) and provide dedicated bicycle parking spaces. By 2027, existing large non-residential buildings are likewise required to retrofit a baseline level of charging capacity or at least make 50 pct. of parking spaces "EV-ready" with cabling provisions. These measures implement Article 14 of the EPBD, ensuring that buildings are equipped for e-mobility (charging of cars, e-bikes, etc.) and thus supporting the transition

[99] https://ens.dk/media/782/download
[100] Forside | Forsyningsdigitaliseringsprogram.dk
[101] Politisk aftale på plads om Danmarks nye digitaliseringsstrategi | Digitaliseringsministeriet

to sustainable, low-carbon transport. The necessary policies and measurements have not yet been implemented in national regulation. The new reuirements are expected to be brought into force in the Building Regulations 2018 (BR18) by 29 May 2026.

All new charging points must also be smart – capable of intelligent load management and, where appropriate, two-way vehicle-to-grid (V2G) operation. In practice, this means chargers can optimise charging times (for example, shifting to off-peak hours when electricity is cheaper) and can even feed energy from the car back into the home or grid if needed. These smart technologies ensure efficient use of energy and grid capacity while enabling flexibility for EV users.

Furthermore, Denmark is intending to implement a national "right to plug" which will be removing legal and practical barriers to private EV charging, in line with the EPBD. New legislation guarantees that tenants and owner-occupiers in apartment buildings or housing cooperatives have the right to install their own charging point at their parking space, without needing consent from landlords or co-owners. Residents bear the costs of such installations, but the process has been simplified to encourage uptake. In relation to this, it should be noted that according to current legislation, an installation of a recharching point does not require a building permit.

Additionally, building policy is mindful of safety, accessibility, and architectural integration concerns alongside the rollout of e-mobility infrastructure. The EPBD explicitly requires Member States to address fire safety in parking structures and to ensure accessibility for persons with disabilities in new construction. In line with this, Danish authorities – with input from fire safety experts – are examining measures to manage any fire risks associated with EV batteries in garages (the European Commission will issue dedicated guidance on EV fire safety in car parks by the end of 2025). Likewise, any new charging or bike facilities in buildings must comply with accessibility standards so they can be used by all residents. Planning and design guidelines also emphasise integrating charging stations and bicycle parking seamlessly into new developments in an aesthetically coherent way, aligning with broader sustainable mobility and urban planning objectives. By combining these technical requirements and supportive policies, Denmark is promoting smart, future-proof mobility infrastructure in buildings within the EU policy framework.

n) addressing market barriers and market failures

Knowledge Centre for Energy savings in Buildings

As mentioned previously in Section c, The Knowledge Centre for Energy Savings in Buildings (VEB[102]) develops, among other things, tools and teaching materials targeted at the performing and vocational education[103]. This was partly done as a result of the study of the compliance of the

[102] https://byggeriogenergi.dk/

[103] https://byggeriogenergi.dk/undervisning-i-byggeri-med-fokus-paa-energi

Danish Building Code[104], in order to follow up on one of the recommendations in this study, regarding enhanced focus on the teachings on energy requirements in the vocational education system, as well as upskilling the existing work force.

EPC and energy consultants

A mandatory training course, to be able to work as an energy consultant in a certified energy labelling company, with the aim of issuing EPCs, is set to be held at Danish business academies. Relevant courses are offered by the academies distributed throughout the country.

Removing the price cap on waste heat (surplus heat)

As of 1 July 2025 the Danish Government removed the price cap on waste heat[105]. This will give more flexibility for the utilisation of waste heat which can contribute to enhanced energy efficiency in district heating.

The National Energy Crisis Staff

In 2022 the Danish Government established a national energy crisis staff (NEKST[106]) which was tasked with speeding up the green transition in Denmark in selected areas. NEKST is a work fellowship where public authorities, municipalities, the energy sector and other relevant actors are invited to participate in creating solutions and minimising market barriers for the green transition agenda.

Within NEKST three different taskforces were established: a) Outphasing gas-heating in private homes, b) Faster expansion of the power grid and c) More land based solar and wind energy.

All three taskforces consisted of members with knowledge and experience on the different issues related to each of the fields, and all had a focus on contributing to identifying and removing barriers.

o) addressing skill gaps and promoting education, targeted training, upskilling and reskilling in the construction sector and energy efficiency and renewable energy sectors (whether public or private), with a view to ensuring that there is a sufficient workforce with the appropriate level of skills corresponding to the needs in the building sector, with a special focus on the underrepresented groups

Skills gap and upskilling opportunities

Denmark has continuously had a great focus on the adult education system, to meet the overall objective of promoting upskilling opportunities, especially for individuals with the least education.

[104] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering
[105] https://www.retsinformation.dk/eli/lta/2025/738
[106] https://www.kefm.dk/klima/nekst-den-nationale-energikrisestab

Education, guidance and upgrading of skills are widely offered to help working-age adults, and especially those most in need of training, improving their employability. The system includes various sub-schemes to upskill the workforce based on education level and union affiliation, focusing on those with the least education and greatest need.

Some schemes use a positive list, which defines available upskilling courses aimed at jobs with labour shortages, such as those related to the green transition. These lists are updated annually with input from social partners to ensure alignment with labour market needs.

For the unemployed, opportunities focus on skills development for reemployment with schemes such as the Regional Education Fund, vocational training for adults and six weeks of vocational training.

Furthermore, a notable scheme is the "Right to educational boost with 110 pct. unemployment benefits"[107]. This scheme gives unemployment benefits to recipients aged 30 or older, who are either unskilled or hold an outdated educational qualification, the right to pursue vocational education in shortage occupations, with support equal to 110 pct. of their individual unemployment benefits. Eligible educational programmes are listed on a positive list which is developed with input from social partners to identify labour shortages. Programmes related to the green transition can be included if relevant shortages exist.

p) awareness-raising campaigns and other advisory tools; and

As described earlier in the paragraph on Denmark's implementation of the one-stop shop via Sparenergi.dk, citizens are informed about the possibility of applying for advice and subsidies for the replacement of fossil energy sources, energy efficiency improvements and deep renovations of buildings. Sparenergi.dk, the one-stop shop and the advisory service are further elaborated above in Section c and paragraph e.

In addition, it may be mentioned that Denmark has launched targeted campaigns in relation to the previously described subsidy schemes.

In addition, public information meetings are continuously held across Denmark where citizens can learn more about energy initiatives.

Furthermore, see the previous description of the VEB in Section c.

q) promotion of modular and industrialised solutions for construction and building renovation

In Denmark private actors can develop and market solutions for modular and industrialised construction and renovation efforts and products, given the high degree of data on the Danish building stock available, as well as the level of digitisation of the Danish society. Furthermore, the demands

[107] https://www.retsinformation.dk/eli/lta/2023/1770

for energy renovation and reduction of energy consumption in the building stock, set out in the Danish Building Code, also serves as an indirect promoter of innovative solutions in the construction sector. Denmark has therefore not identified barriers for developing these types of solutions. This is also why it has not been necessary to establish targeted efforts. The Danish Government focuses on supporting entrepreneurship and launched an "Entrepreneurship Package" in June 2024 which includes earmarked capital to support green entrepreneurs via a capital increase to the Export and Investment Fund of Denmark[108]. Lastly, it is possible to apply for funding via the Energy Technology Development and Demonstration Programme[109] for these types of efforts. However, as of the date of writing, the DEA is not aware of any applications of this nature having been received under this funding programme.

d) Outline of the investment needs, the budgetary sources and the administrative resources

total investment needs for 2030, 2040, 2050 (million EUR)
public investments (million EUR)
private investments (million EUR)
budgetary resources

The total investment needs are calculated based on the amount of m^2 that needs to be renovated during the periods in the table and standard average values for the cost of renovating a m^2 to meet the demands. The cost is marginal for renovations following the organic renovation of the building stock whereas the full price is included for forced renovations as a result of MEPS. The prices were estimated in a report made by external consultants, working for the DEA, with the purpose of supporting the implementation of the EPBD[110]. By using this method, the total costs cover the expenses connected to improving the energy performance of the building stock in order to meet the target in 2050. It does, however, not include additional expenses for mobility or administrative resources.

The sources of financing for public buildings are assumed based on statisics on money spent on construction in 2023 for projects in municipalities, regions and for the state. The statistics are published by the private company "Byggefakta". It is assumed that about 10 pct. of the total funds spend on buildings and construction are spend on projects improving energy performance. The investments have been evenly projected over time with an increase following an inflation of 2 pct.

[108] https://regeringen.dk/media/4zknzdm0/aftale-om-ivaerksaetterpakken.pdf
[109] https://eudp.dk/en
[110] https://vbn.aau.dk/da/publications/omkostninger-og-energibesparelser-ved-energieffektivisering-af-by

It has not been possible to disaggregate the private funds in a meaningful way why only the total value is reported.

Table 30:

Breakdown	**Investment needs for renovation of existing stock** (million EUR)	**M/ Miav**	**2026-2030**	**2031-2033**	**2033-2035**	**2036-2040**	**2041-2045**	**2046-2050**
Investment needs	Residential (renovation)	M	1,889	1,133	756	1,889	1,889	1,889
	Out of which for 43pct. worst-performing buildings	Miav	1,330	798	532	1,330	1,330	1,330
	Non-residential (renovation)	M	464	733	384	959	597	597
	Out of which for worst-performing buildings (incl. buildings concerned by Article 9(1))	Miav	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.
	Other needs such as: administrative resources, alleviation of energy poverty, creation of OSS, deployment of solar energy installations and infrastructure for smart mobility	Miav	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.
	Total investment needs	M	**2,353**	**1,866**	**1,139**	**2,848**	**2,486**	**2,486**
Source of financing (Public/Private) incl. budgetary resources	**Public investments** *Out of which*	M	1,388	1,002	702	1,881	2,077	2,293
	Local funds	M	940	611	428	1,146	1,266	1,398
	Regional funds		52	33	23	63	69	77
	National funds	M	396	358	251	671	741	818
	EU funds	M	0	0	0	0	0	0
	Other (describe)	Miav	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.

	Private investments *Out of which*	M	966	864	438	967	409	193
	Own-financing	M	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.
	Mortgages	M	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.
	Non-secured loans	M	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.
	PPP/Energy Performance contracting	M	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.
	Other (describe)	Miav	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.
	Total source of financing		**2,353**	**1,866**	**1,139**	**2,848**	**2,486**	**2,486**

e) Thresholds of new and renovated Zero-Emission Buildings, referred to in Article 11

The necessary policies and measurements have not yet been implemented in national regulation. The new reuirements are expected to be brought into force in the Building Regulations 2018 (BR18) by 29 May 2026. Under the revised EPBD, all new buildings must be zero-emission by 2030 (with public-sector buildings by 2028), and a ZEB is defined by the Commission as a building with zero on-site CO_2eq emissions from fossil fuels and very high efficiency. In light of this, the voluntary 2018 "low-energy class" (Lavenergiklasse in Danish, formerly Building Class 2020) is considered as the starting point for its national ZEB standard. A building in the low-energy class must have an exceptionally low total energy requirement. For example, residential buildings can use no more than ~27 kWh/m² per year for heating, cooling, ventilation, and hot water (and ~33 kWh/m²/year for other types of buildings). This is 10 pct. lower in primary energy use than Denmark's NZEB level, which is the current standard building requirement, thereby fulfilling the EPBD recast mandate for ZEB efficiency thresholds.

Denmark expects to align its building rules so that, from 2030 onwards, new construction meets the strict efficiency of the low-energy class (effectively making this voluntary standard mandatory). The public sector is likely to lead by 2028. In practice this means new Danish buildings will be built with very low energy demand and will rely on renewable or low-carbon energy for any remaining needs.

Danish regulations already encourage measures like district heating, heat pumps and on-site renewables, so most new buildings in 2028/2030 would already be based on electrified/renewable energy, even without the new thresholds.

For existing buildings undergoing major renovation, Denmark expects to use the current NZEB level for existing buildings minus 10 pct. wherever it is technically and economically feasible to do so. Deep renovations are encouraged to aim for the same level of performance. However, if a given older building cannot fully meet the level due to practical constraints, the requirements may be adjusted according to what is cost-optimal for that project. In other words, the renovation should achieve the highest energy performance that makes sense financially for that building type, even if it falls slightly short of the full new-building standard. This flexible approach ensures that each renovation maximises efficiency improvements without imposing disproportionate costs, while still moving the building stock as a whole toward zero-emission levels by 2050.

The Danish ZEB threshold (the low-energy class criteria) will be monitored and can be updated over time. As building technologies advance and the EU's requirements evolve, Denmark may refine the ZEB standards to remain both ambitious and achievable. In this way, the low-energy class serves as a starting point for ZEB definitions, which can be tightened in the future if needed, ensuring continued alignment with national climate objectives and the EPBD's long-term vision.

Table 31:

Thresholds **For new and/or renovated ZEB**			
Building type 1 Residential (Housing, dormitories, hotels and the like)		Building type 2 Non-residential (All buildings not building type 1)	
Energy demand threshold in total annual primary energy use (kWh/m².y)	Operational GHG emissions threshold ($kgCO_2eq/(m^2.y)$)	Energy demand threshold in total annual primary energy use (kWh/m².y)	Operational GHG emissions threshold ($kgCO_2eq/(m^2.y)$)
<27.0		<33.0	

f) Minimum energy performance standards for non-residential buildings

The draft NBRP may be subject to amendments, including the thresholds, as the implementation of the EPBD into Danish law has not yet been presented to and approved by the Danish Parliament. Accordingly, changes that may occur prior to the final adoption of the law will be reflected in the final NBRP. The thresholds for 2030 and 2033 have been set based on the mapping of the non-residential building stock in 2020. The estimation of the thresholds takes into account which buildings are within the scope of the MEPS demands and the supposed bias in the EPCs, compared to the total building stock.

There is only one set of thresholds in a Danish context, as differences in non-residential building types are handled within the calculation of the primary energy demand in the EPC calculation, through the use of supplements whereby different uses of the buildings are differentiated and the energy performance of the buildings can still be compared. The use of supplements makes it possible to build all types of buildings. To make sure that the energy use for buildings with supplements is not too high, there are a range of component requirements for technical systems and to the building envelope.

The thresholds for 2040 and 2050 are not yet set as binding targets, but values are set as indicative targets, supporting the overall goal of a zero-emission building stock in 2050. The target for 2050 is set so that it corresponds with the current cost optimal level in the Building Code. The cost optimal level is calculated according to the Directive and the delegated act and reported in the cost-optimal reports where the latest is from 2023. The target for 2040 is set approximately halfway between the 2033 and the 2050 target. Exemptions are found under Article 9(6) litra a-f.

Denmark will make use of the possibilty to excempt buildings for all categories listed in Article 9 (6), litra a-f. Therefore, Denmark expects that aproximately 190,000 non-residential buildings will be excempted MEPS-demands in accordance with Aritcle 9(6) litra a-f.

The draft NBRP may be subject to amendments, including the number of buildings to be excempt, as the implementation of the EPBD into Danish law has not yet been presented to and approved by the Danish Parliament. Accordingly, changes that may occur prior to the final adoption of the law will be reflected in the final NBRP.

Table 32:

Choice of indicator	Primary energy use
Thresholds[111]	If thresholds are defined to whole building stock
	Whole building stock
the 16 pct. threshold kWh/(m².y)	190
the 26 pct. threshold kWh/(m².y)	168
the "2040" threshold kWh/(m².y)	139
the "2050" threshold kWh/(m².y)	97

The mapping of the building stock has been described under Section a.

g) National trajectory for the progressive renovation of the residential building stock

The baseline for the national trajectory is set based on the average primary energy consumption in the EPCs made in 2020 and adjusted for the assumed bias in the EPCs compared to the whole building stock. The bias is determined by comparing the average primary energy consumption of EPCs to the average primary energy consumption, found as a result of the mapping and analysis made of the building stock as it was in 2020.

The milestones for 2030 and 2035 are set to -16 pct. and -20 pct. according to the baseline of 2020. The milestones for the following years are set to achieve a steady decrease in the average energy performance, which gives a sufficient contribution to the energy performance of the total building stock, in order to meet the target of a zero-emission building stock in 2050.

[111] Member States may set the maximum energy performance thresholds with reference to the national non-residential building stock as a whole or per building type or category of building. The classification of buildings by categories is recommended to avoid treating certain building segments unfairly.

Table 33:

Indicator	**2020 "baseline"**	**2030 milestone**	**2035 milestone**	**2040 milestone**	**2045 milestone**	**2050 milestone**
Average primary energy use in kWh/(m².y) (A)	*156*	*128*	*125*	*123*	*112*	*102*
Variation in pct. compared to 2020 (pct.) (B)	Not applicable	-18	- 20	-21	-28	-34
Number of buildings to be renovated annually	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.
Floor area to be renovated annually	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.
Number of the 43pct. WP buildings to be renovated annually	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.
Floor area of the 43pct. WP buildings to be renovated annually	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.
Sub-target to achieve at least 55pct. of the decrease in 43pct. worst-performing buildings in GWh/year	Not applicable	To be recalculated later, but at least 8.8pct.	To be recalculated later, but at least 11-12.1pct.)	To be calculated later	To be calculated later	To be calculated later
Additional optional indicator(s) as per Article 9(3)	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.	Not available in DK.

h) an evidence-based estimate of expected energy savings and wider benefits, including those related to indoor environmental quality

Study of wider benefits of energy renovations

As part of the LTRS, a study of the wider benefits of energy renovations was conducted "Afledte effekter ved energirenovering 2019"[112]. The study focuses on the wider benefits of four main elements:

1) the energy renovation itself, e.g. an insulation measure;
2) the directly derived effect, e.g. less condensation and mold growth on walls;
3) the indirectly derived effect, e.g. fewer asthma cases; and
4) economic valuation, e.g. measured as the value of fewer sick days related to asthma.

The Study has served as supportive empiricism for the Danish implementation of the EPBD. For more information, see the LTRS[113].

[112] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering
[113] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering

Appendix 1 to Annotated NBRP template

Summary of the results of the public consultation

To be included after the public consulation.

Details on the implementation of the most recent LTRS

Long-term renovation strategy – restating ambitions and non-binding indicative targets

As stated in the EPBD Article 3 and Appendix 2, Member States must provide a summary and status of the implementation of the most recent LTRS, as notified according to Article 2a of the Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (EPBD 2010/31/EU). The following is thus a brief summary of the most recent Danish LTRS.

On 10 March 2020 Denmark published and notified Part 1[114] of Denmark's LTRS to the EU Commission. The Government decided, in connection with the notification of Denmark's NECP[115], at the end of 2019, that the indicative targets for 2030, 2040, 2050, etc. would be set in connection with the upcoming climate action plans, in order to be able to incorporate possible effects of new initiatives in the indicative targets.

On 22 June 2021 Denmark notified Part 2[116] of Denmark's LTRS, which contains two non-binding indicative targets for 2030, 2040 and 2050, cf. Table 34. In addition, the strategy contains an explanation of how the targets contribute to achieving the Union's energy efficiency targets, in accordance with Directive 2012/27/EU on energy efficiency (EED 2012/27/EU). Part 2 of Denmark's renovation strategy must therefore be seen in the context of Part 1 which explains existing and known instruments in Denmark's energy renovation efforts. The indicative targets are set based on agreements such as the Climate Agreement for Energy and Industry etc. of 22 June 2020 and the Green Housing Agreement 2020 of 19 May 2020. For more information on the LTRS, the progress of achieving the targets etc., please see the latest Danish NECP[117], e.g. Section A 1.1 and 1.1 ii-iii; Section A 2.2. and 2.2. ii; and Section A 3.2 and 3.2 ii.

According to Article 2a of the EPBD 2010/31/EU, the sub-goals must contribute to meeting the EU's long-term target for 2050 of reducing GHG emissions by 80-95 pct. compared to 1990. The goal is to achieve a highly energy-efficient and decarbonised building stock by 2050 at the latest and to facilitate the cost-effective conversion of existing buildings into NZEBs. Denmark has set the following two indicative sub-goals which are explained in more detail below.

[114] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering
[115] https://ens.dk/globalt-samarbejde/national-energi-og-klimaplan-til-eu
[116] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering
[117] https://ens.dk/globalt-samarbejde/national-energi-og-klimaplan-til-eu

Targets

Table 34: Non-binding indicative targets for 2030, 2040 and 2050

Non-binding targets	**2030** (pct.)	**2040** (pct.)	**2050** (pct.)
Reduction of the final energy consumption per m^2 for households	5		
Reduction of the calculated energy consumption per m^2 for households (based on EPC)	10	19	28

Indicative sub-target for reduction of the actual net heat consumption per m^2

The sub-target reflects the expected development in the actual net heat consumption per m^2 of heated area, for residential buildings built up until 2018, in the Baseline Projection (Basisfremskrivning – BF) 2020[118]. In addition to the effect of ongoing renovations, the target also takes into account the effects of consumers' changed behaviour, e.g. if homeowners choose to increase the indoor temperature after renovation to increase comfort (the rebound effect). The sub-target is set based on the development in net heat consumption in the DEA's BF, adjusted for new initiatives (frozen policy approach). The LTRS has set a sub-target of 5 pct. reduction in 2030 and no sub-targets for 2040 and 2050. This is because the baseline projection only goes to 2030. Therefore, data from the projection for the period after 2030 is not consolidated, and the effects of (new) measures are not included.

Indicative sub-target for reduction in calculated heat loss per m^2 based on energy label data

The sub-target is set on the basis of data in the energy labels on the development of calculated heat loss. It is thus a measure of the energy standard of the buildings and is thus an expression of the energy renovation of buildings, while the sub-target for the actual net heat consumption per m^2 is an expression of the total consumption, including the impact of user behaviour in the building.

The target is set on the basis of a constant annual reduction in percent of the average annual development in the calculated heat loss in the period 2013-2019 where the development has primarily been driven by the requirements of the BR18, EPC scheme, information and campaign efforts, etc. These initiatives are continuing, and the target therefore reflects a projection of the expected development of energy renovation in Denmark without further policy measures. The period 2013-2019 has been chosen, as it is considered to have the highest available data quality, which is due to better guidelines and a higher level of education in connection with the execution of the EPCs. The sub-target of reduction in calculated heat loss per m^2 will not necessarily lead to a corresponding reduction in actual energy consumption. Furthermore, the sub-target is in line with an analysis

[118] https://ens.dk/analyser-og-statistik/basisfremskrivninger

of the potential for reduction of consumption of heating in buildings "Varmebesparelse i eksisterende bygninger 2017"[119] carried out by BUILD, which indicates that there is a profitable potential for reducing the calculated net heat consumption per m^2 in existing buildings, towards 2050, by approximately 30 pct. compared to heat consumption in 2017.

Achievement of targets

Fulfillment of non-binding indicative targets

The final energy consumption in residential buildings was 6 pct. lower in 2023 than it was in 2020. By 2030, projections show a decrease of 10 pct. The indicative target is thereby met and is expected to continue to improve before 2030.

Projections of the average energy performance of residential buildings show that the energy performance of these buildings are expected to improve over time, and it is expected that all targets for improvement in average energy performance will be meet in time. The improvements are a result of a number of contributing factors, including, but not limited to, regulations for components in connection with renovation, continuous maintenance of the building stock, subsidy schemes, conversions to district heating or heat pumps and general improvement of the energy supply sector, resulting in better primary energy factors.

Contribution to the Union's energy efficiency target

By setting the indicative target for reduction in calculated heat loss per m^2, based on energy labelling data, part of the existing building stock will be converted into nearly energy-neutral buildings. The roadmap in the LTRS therefore includes a number of requirements and instruments, decided in the Climate Agreement for Energy and Industry etc. and the Green Housing Agreement, to facilitate the cost-effective energy efficiency improvement of existing buildings for the different building segments: government buildings, residential buildings, public housing and commercial buildings.

The indicative interim targets and the roadmap in the LTRS will thus contribute to the achievement of a decarbonised building stock in 2050 and must be seen in the context of Denmark's binding climate law, with a target of 70 pct. reduction in GHG emissions in 2030, compared to 1990.

For more information on the LTRS, the progress of achieving the targets, implemented policies and measures etc., please see the latest Danish NECP[120], e.g. Section A 1.1 and 1.1 ii-iii; Section A 2.2. and 2.2. ii; and Section A 3.2 and 3.2 ii.

[119] https://ens.dk/forsyning-og-forbrug/byggeri-og-renovering

[120] https://ens.dk/globalt-samarbejde/national-energi-og-klimaplan-til-eu

Summarised analysis of the results of inspection schemes or alternative measures

Denmark has opted to apply alternative measures in accordance with Article 23(6) of the EPBD, in lieu of regular inspections under Article 23(1), for both heating and air-conditioning (cooling) systems. In line with Article 23(6), this annex provides a summarised analysis and the results of those measures, expressed in energy savings and GHG emissions.

The equivalence of the chosen measures is assessed against a baseline representing the impact of a hypothetical inspection scheme as per Article 23(1). Denmark notifies the Commission that the selected measures deliver an overall impact at least equivalent to the inspection baseline in the period 2026-2028.

Alternative measures applied

1. Business Scheme (Erhvervspuljen, EP) – grants to enterprises for energy-efficiency projects affecting Technical Building Systems (heating and comfort cooling/ventilation).
2. Building Code automation requirements (>290 kW, cooling/ventilation) – controls, monitoring and fault detection for large systems.
3. Temporary investment window – the depreciation base for eligible investestments in new operating assets made between 1 January 2025 and 31 December 2026 is increased from 100 pct. to 108 pct. Investments in operating assets powered by fossil fuels are excluded.

Conservative rule for projections: To avoid overestimation, the annual effect of EP is set equal to the lowest verified historical saving per area. For heating, this is 135.8 TJ/year (EP2024); for cooling/ventilation, 11.1 TJ/year (EP2023).

Method and data

- Scope: Technical Building Systems with nominal useful output >70 kW; industrial/process installations and district heating/cooling networks excluded
- Time horizon: 2026-2028 (three programme years)
- Baseline (inspections): Derived from Denmark's latest equivalence calculations – 1.85 TJ/year (heating) and 5.17 TJ/year (cooling)
- GHG method: Energy → emissions using national factors
- Indoor Environmental Quality (IEQ): Measures are designed not to deteriorate thermal comfort, IAQ, humidity or noise. Automation requirements (>290 kW) promote continuous monitoring and fault detection

Results (energy and GHG)

Heating (Article 23 – alternative measures)

- Annual effect applied (EP, conservative): 135.8 TJ/year
- Cumulative energy savings 2026-2028: 407.5 TJ

- Cumulative GHG savings: 38,792.9 tCO_2
- Inspection baseline (counterfactual): 5.55 TJ and 297.13 tCO_2 over 2026-2028
- Equivalence statement: Alternative measures exceed the inspection baseline by a large margin in both energy and GHG terms

Cooling (Article 23 – alternative measures)

- Components: EP (11.08 TJ/year), Building Code automation (0.49 TJ/year).
- Annual effect applied (total): 11.57 TJ/year
- Cumulative energy savings 2026–2028: 34.71 TJ
- Cumulative GHG savings: 304.04 tCO_2
- Inspection baseline (counterfactual): 15.51 TJ and 107.74 tCO_2 over 2026-2028
- Equivalence statement: Alternatives exceed the baseline throughout the period

Table 35: Consolidated table (2026-2028)

Area	**Measure**	**Annual effect used** (TJ/year)	**Cumulative energy** (TJ)	**Cumulative GHG** (tCO_2)	**Baseline energy** (TJ)	**Baseline GHG** (tCO_2)
Heating	EP	135.85	407.54	38,792.85	5.55	297.13
Cooling	EP + Building Code	11.57	34.71	304.04	15.51	107.74

Quality assurance, compliance and risks

- QA/QC: Standard documentation for grant projects (baseline determination, savings calculation or measurements, commissioning). Risk-based sampling and desk reviews.
- Compliance: Building Code automation obligations for large cooling systems support persistent savings and IEQ safeguards.
- Data limitations: No comprehensive national registry of systems >70 kW; estimates rely on programme records and sector data; the conservative EP-min rule mitigates estimation risk.

Further actions and need to update equivalence

Denmark will reassess equivalence if: (i) EP activity levels materially change; (ii) Building Code provisions are amended; or (iii) national emission factors are updated. A significant change will trigger an updated equivalence report in due time, in line with Article 23(6).

Conclusion

For 2026-2028 Denmark's alternative measures for heating and cooling deliver cumulative savings of ~452.25 TJ and ~39,096.89 tCO_2, substantially exceeding the inspection baseline of ~21.06 TJ and ~404.87 tCO_2. Denmark therefore demonstrates equivalence as required by Article 23(6) and submits this summarised analysis and results as an annex to the draft NBRP.