Report

DNB Green Buildings Portfolio Impact Assessment 2026

CLIENT

DNB Bank ASA

SUBJECT

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Report

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1 Introduction

On assignment from DNB Bank ASA (DNB), Multiconsult has assessed the impact of the part of DNB's residential building loan portfolio eligible for green bonds according to DNB's Green Finance Framework [1]. In this document, we briefly describe DNB's green bond qualification criteria, the evidence for the criteria and the portfolio impact assessment results of the green loan portfolio.

2 Regulatory updates for building energy efficiency and top 15 percent guidance

The following section provides an overview of the Norwegian Energy Performance Certificate (EPC) system, both the previous system on which this analysis is based and the revised system introduced in 2026, as the regulatory backdrop against which the bank's eligibility criteria are defined. Moreover, this section also outlines the recently published top 15 percent guidance from the Norwegian Ministry of Energy.

2.1 The Norwegian EPC system until 2026

The Norwegian EPC system became operative in 2010 and was made mandatory for all new buildings completed after 1 July 2010, as well as for all buildings sold or rented out.

The EPC consists of an energy rating (A-G) and a heating rating (green–red colour scale). The energy rating ranges from A (best) to G (weakest). The rating provides an overall assessment of the building's energy needs, specifically the number of kilowatt-hours the building is calculated to require per square meter for standardized (normal) use in a standardized climate. The energy rating is based on a calculation of net delivered energy according to the Norwegian Standard NS 3031:2014 *Calculation of energy performance of buildings - Method and data*, including the efficiencies of the building's energy system (power, heat pump, district energy, solar energy, etc.). Thus, the energy rating is independent of actual measured energy use. From 2023, all registrations must be linked to a listing in Norway's official property register. The energy rating is relevant when using the EPC to assess the energy performance of a building in conjunction with the EU Taxonomy, but not the heating rating.

Table 2-1 shows the energy thresholds for each energy rating (A–G) for selected building categories. For residential buildings, the thresholds depend on the heated utility area [2]. Note that the calculation of net delivered energy includes all standard consumption, including lighting and technical equipment.

Table 2-1 The energy rating scale used in the previous Norwegian EPC system with thresholds for selected building categories. Source: [2]

Building category	Calculated specific net delivered energy per m² heated utility area [kWh/m²]						
	A	B	C	D	E	F	G
	Lower or equal to	Lower or equal to	Lower or equal to	Lower or equal to	Lower or equal to	Lower or equal to	No limit
Small residential buildings	95	120	145	175	205	250	> F
Sq. m adjustment	+800/A	+1,600/A	+2,500/A	+4,100/A	+5,800/A	+8,000/A	
Apartments/apartment buildings	85	95	110	135	160	200	> F
Sq. m adjustment	+600/A	+1,000/A	+1,500/A	+2,200/A	+3,000/A	+4,000/A	
Office buildings	90	115	145	180	220	275	> F
Retail/commercial buildings	115	160	210	255	300	375	> F

2.2 The new Norwegian EPC system and upcoming building code updates

On 1 January 2026, a revised EPC system was launched in Norway. Changes from the previous scheme consist of the introduction of a new Norwegian standard for energy calculations NS 3031:2025 including updated climate data. The main goal of the revised EPC system is to provide a holistic view of a building's environmental footprint and its strain on the national energy grid. The revision aligns with the EU Energy Performance of Buildings Directive (EPBD) and introduces significant methodology changes to support national decarbonization goals. The new system incorporates weighting factors which replace the previous heating rating, leaving only one single rating for easier EPC comparison, cf Table 2-2.

The incorporation of weighting factors in the revised system will equalize district heating and biofuel with electric heat pumps. Buildings connected to district heating (which utilizes waste heat) will get a weighting factor of 0.45, making it easier to achieve a higher rating compared to the previous EPC system. Conversely, buildings relying solely on electric heating may get a rating drop under the revised system (weighting factor 1.0).

Table 2-2 The (combined) energy (and heating) rating scale used in the new Norwegian EPC system with thresholds for selected building categories. Source: [3]

Building category	Calculated specific weighted net delivered energy per m² heated utility area [kWh/m²]						
	A	B	C	D	E	F	G
	Lower or equal to	Lower or equal to	Lower or equal to	Lower or equal to	Lower or equal to	Lower or equal to	No limit
Small residential buildings	85	95	155	210	265	315	> F
Sq. m adjustment	+800/A	+1,600/A	+2,500/A	+4,100/A	+5,800/A	+8,000/A	
Apartments/apartment buildings	80	95	140	185	230	270	> F
Sq. m adjustment	+600/A	+1,000/A	+1,500/A	+2,200/A	+3,000/A	+4,000/A	
Office buildings	75	90	140	190	235	285	> F
Retail/commercial buildings	110	130	200	265	330	395	> F

An EPC issued for a building in Norway is valid for 10 years under both the previous and the new EPC systems.

Furthermore, the ED is in the process of developing new energy requirements in the building code (TEK). This will incorporate the new NS 3031:2025 and the aforementioned weighting factors for energy sources. It is expected that a revised national nearly zero-energy building (NZEB) definition will be released at the same time, which will be based on the new energy requirements (NS 3031:2025) that include weighting of energy sources.

The analysis presented in this report is based on DNB's building portfolio as of 31 December 2025. There are thus no building objects in the portfolio with an EPC issued under the new system. Accordingly, the analysis presented in this report is based on the previous EPC system (cf subsection 2.1) and the current NZEB definition (cf subsection 3.1).

2.3 The Norwegian Ministry of Energy's top 15 percent guidance publication and the validity of the TEK10/TEK17 eligibility criterion

On 28 April 2026, the Norwegian Ministry of Energy published thresholds for the top 15 and 30 percent most energy-efficient buildings in the Norwegian building stock within various building categories [4]. The thresholds incorporate the new NS 3031:2025 and the aforementioned weighting factors for energy sources, implying that the thresholds apply to buildings with an EPC issued under the new system; cf subsection 2.2. There are currently no official top 15 percent thresholds available for buildings with an EPC issued under the old system, but the thresholds in Finans Norge's guidance publication issued in November 2025 may be utilized [5].

As an alternative to qualifying buildings based on threshold values, buildings may be qualified based on building code (TEK10/TEK17); cf section 3. This methodology is particularly useful in cases where specific delivered energy data is not available to the bank. Both methodologies – i.e. eligibility based on threshold values or building codes – satisfy the criteria for the activity 'Acquisition and ownership of buildings' under the EU Taxonomy for sustainable economic activities. This conclusion holds for portfolios as of 31 December 2025 (and earlier). However, this conclusion may no longer hold from 1 January 2026 onwards, as the new EPC system could enable older buildings (TEK07 and earlier) using district heating or biofuel to displace newer buildings (TEK10/TEK17) from the top 15 percent most energy-efficient buildings in the building stock.

3 Green residential buildings eligibility criteria

According to DNB's Green Finance Framework, residential buildings in Norway qualify for green bonds if they meet one or more of the following eligibility criteria:

1. **Buildings built in 2021 or later: NZEB-10 percent**

   Residential buildings complying with the relevant NZEB-10 percent threshold.

2. **Buildings built before 2021: Buildings within the top 15 percent energy-efficient buildings in Norway**

   Residential buildings complying with building code TEK10 and later codes (built in 2012 or later).

The following sections explain Multiconsult's approach for identifying buildings that qualify under each eligibility criterion. Moreover, the following sections also describe the methodology to calculate the energy savings and corresponding avoided CO_2 emissions for the portfolio relative to the average residential Norwegian building stock.

3.1 Residential buildings built in 2021 or later: NZEB-10 percent

The EU Taxonomy for sustainable activities distinguishes between new and existing buildings, with criteria dependent on whether the buildings are completed before or after 31 December 2020. The technical screening criteria for new buildings require the buildings to have an energy performance, described in terms of primary energy demand, at least 10 percent lower than the threshold set in the national definition of a nearly zero-energy building (NZEB). The energy performance is to be documented by an EPC. [6]

Multiconsult has assessed the performance of new buildings and how the most energy efficient buildings may be identified in the bank's loan portfolio based on the Norwegian NZEB definition. Some background on the Norwegian national NZEB definition and its relationship to the EPC system described in section 2 and the building codes is provided below as context for the eligibility criteria.

The Norwegian national definition of NZEB was published in January 2023, with a correction issued in January 2024. [7, 8] The NZEB definition has clear references to the building code TEK17, and in practical terms, the definition is no stricter than TEK17. The difference lies in:

a. a shift of system boundary to primary energy demand based on calculated net delivered energy and the introduction of primary energy factors, and
b. an exclusion of energy demand related to lighting and technical equipment. The definition states that for calculations of primary energy demand in relation to the Energy Performance of Building Directive and the EU Taxonomy, a factor of 1.0 must be used for all energy carriers.

Table 3-1 shows the thresholds for residential buildings according to the Norwegian national NZEB definition.

Table 3-1 Thresholds for NZEB specific primary energy demand. Source: [7, 8]

Building category	Specific primary energy demand for NZEB [kWh/m^2]
Small residential buildings	(76 + 1,600/A)
Apartment buildings	67

It is to be noted that the threshold for small residential buildings depends on an area correction factor (1,600/A) which is inversely proportional to the heated utility area (A). For apartment buildings, however, the threshold is fixed and independent of the heated utility area. Moreover, the threshold for apartment buildings applies to the building as a whole, not also to individual apartments as in the Norwegian EPC system.

The thresholds in the table indicate the building's primary energy demand and are based on calculated net delivered energy according to the Norwegian Standard NS 3031:2014, multiplied with a primary energy factor of 1.0 for all energy carriers [9]. In practical terms, this means that calculated primary energy demand equals calculated net delivered energy.

The NZEB thresholds are related to, but not directly comparable to, the EPC system since energy demand for lighting and technical equipment is excluded in the NZEB definition. However, as we will show in the subsections below, the NZEB thresholds can be converted to specific net delivered energy used in the EPC system by adding the standard fixed values for lighting and technical equipment specified in the NS 3031:2014.

3.1.1 Identifying buildings with NZEB-10 percent performance or better

Documentation by NZEB definition referenced standard

One way to document an NZEB-10 percent energy performance, is to present results from calculation in accordance with the NS 3031:2014. These calculations are required for all new buildings and are a central part of the required documentation to get a building permit and certification of completion. This documentation is not readily accessible in public registers, even for banks. A more practical and accessible approach to identifying qualifying assets within a bank's portfolio is to rely on energy labels and EPC data, as discussed below.

Documentation by EPC data

By retrieving sufficient data from the EPC database and combining it with data on the residences' heated utility area, NZEB-10 percent eligible objects in a bank's portfolio can be identified. Where reliable area data is not available to the bank, the national average in the building statistics may be used. This is also more in line with documentation requirements in the EU Taxonomy Annex 1.

The Norwegian EPC system is based on specific net delivered energy and not primary energy. Since the information accompanying the NZEB definition sets national primary energy factors to 1.0 for all energy carriers, it is a fair assumption that specific net delivered energy in the EPC system is equal to specific primary energy demand in the NZEB definition.

Until 1 March 2024, the Norwegian EPC regulations stated that apartments must have individual EPCs. This meant that apartments in an apartment building would receive different EPC energy ratings depending on their location in the building in relation to surface exposure to the outdoors, etc. The EPC regulation allowed establishing EPCs for apartments based on calculations for the apartment building as one unit only when all apartments were smaller than 50 m^2. Regardless, the thresholds for apartments in Table 2-1 were still applicable.

The EPC regulation changed on 1 March 2024. From that time on, it has been possible to create an EPC valid for an entire apartment building, provided it is prepared by a company that meets the competence requirements. This aligns with the method used to evaluate energy requirements in the building code (TEK17) and has thenceforth been the preferred way to establish EPCs for new apartment buildings. When apartment owners want to sell their apartments, they can choose whether to use the EPC established for the entire apartment building or to prepare an individual apartment EPC. The thresholds in Table 3-1 are valid for both apartments and apartment buildings.

The columns in Figure 3-1 describe the thresholds in the EPC system for labels A, B and C, where area correction is applied for a small residential building with a heated area of 166 m^2, a single apartment of 65 m^2 and an apartment building of 2,000 m^2. The lines indicate the calculated NZEB and NZEB-10 percent thresholds calculated by adding the standard fixed values for lighting and technical equipment in the NS 3031:2014.

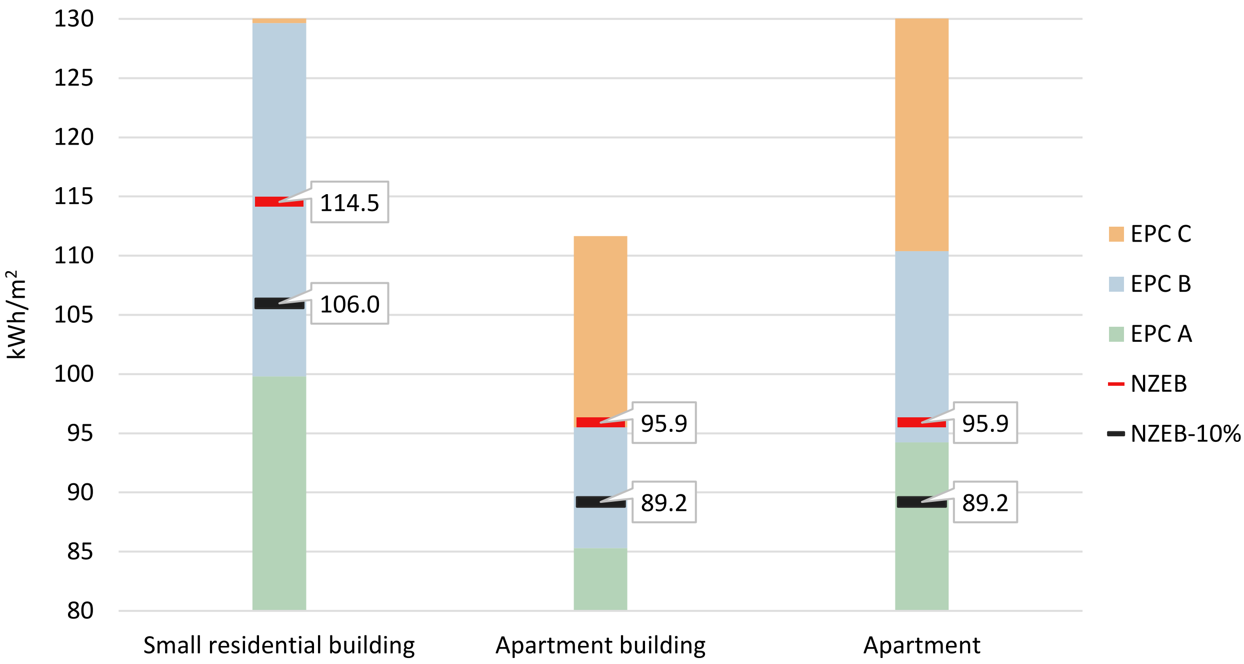


Figure 3-1 Energy performance with reference to the national definition of NZEB and NZEB-10 percent compared to limit values in the EPC system (values dependent on the heated utility area of building/residence). Source: [10, 9, 7]

Due to the area correction factor, the threshold can be calculated individually for all objects in the portfolio based on actual area. For apartments, the NZEB thresholds are constant, while the EPC thresholds depend on apartment size. For small residential buildings, both NZEB and EPC thresholds are dependent on the size of the residence. Table 3-2 provides a more granular picture, including a wider range of residence and building sizes.

Table 3-2 Qualifying EPCs are dependent on the heated utility area of the building/residence.

Limit values specific energy demand [kWh/m^2]			
Small residential buildings			
Area unit [m^2]	NZEB-10 percent made comparable to EPC	EPC A	EPC B
50	126	111	152
100	112	103	136
150	107	100	131
200	105	99	128
250	103	98	126
300	102	98	125
Apartments (EPC available, but no NZEB definition established at apartment level)			
Area unit [m^2]	NZEB-10 percent made comparable to EPC	EPC A	EPC B
50	89	97	115
75	89	93	108
100	89	91	105
125	89	90	103
150	89	89	102
175	89	88	101
Apartment buildings (NZEB definition in place, but no (very few) EPCs at building level)			
Area unit [m^2]	NZEB-10 percent made comparable to EPC	EPC A	EPC B
500	89	86	97
2,000	89	85	96
5,000	89	85	95

For small residential buildings, the NZEB threshold specific to dwelling size is found by inserting the buildings heated utility floor space area in the area correction factor. By adding the standard fixed values for lighting and technical equipment in the NS 3031:2014, the threshold value now becomes comparable to the specific net delivered energy given in the EPC-system.

3.1.2 Eligibility of small residential buildings

Small residential buildings completed since 31 December 2020 with EPC label A, or EPC label B with specific delivered energy demand below the defined threshold, qualify for the newbuild criterion NZEB-10 percent.

The EPC rating A limit values, as described in specific energy demand in Figure 3-1 and Table 3-2, are below NZEB-10 percent for all small residential buildings, regardless of building size. Hence, an EPC A is sufficient to identify green buildings of this category. As illustrated by the above analysis, qualifying only small residential buildings with an EPC A is a conservative approach, as some buildings with an EPC B would also qualify. The practical approach utilizing detailed data on the building can be illustrated as shown in Figure 3-2 and Figure 3-3.

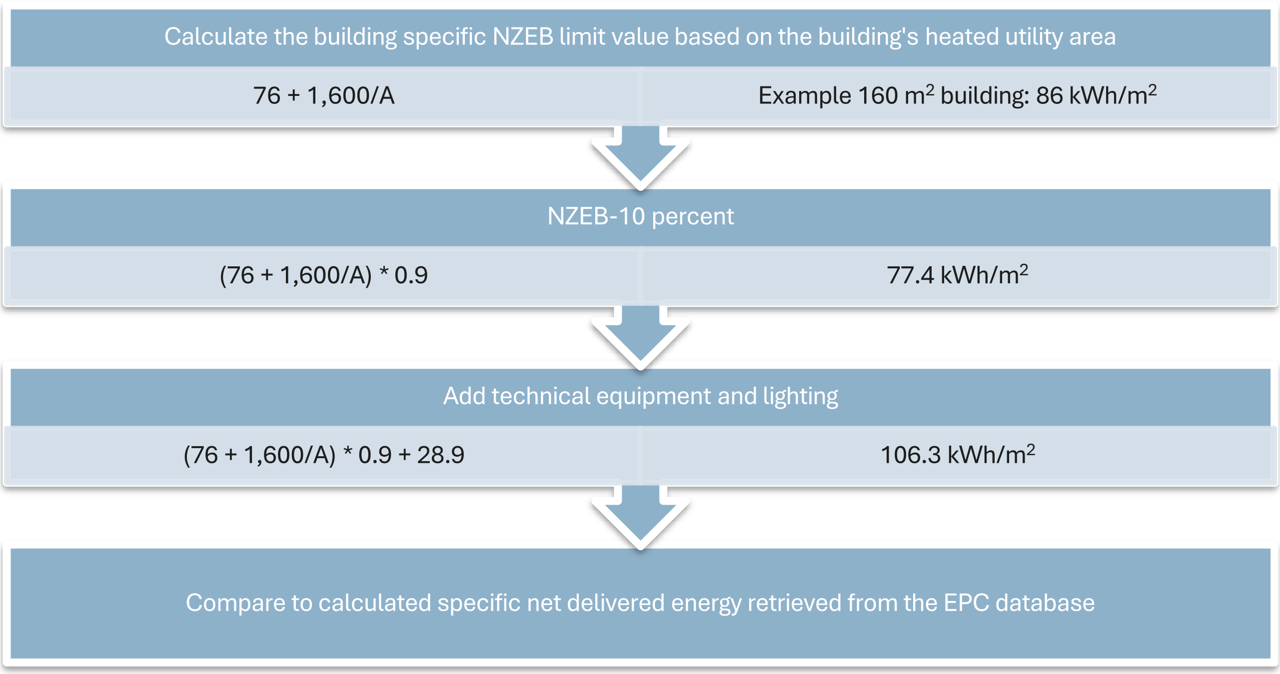


Figure 3-2 How to compare NZEB-10 percent to specific energy demand from the EPC system for small residential buildings.

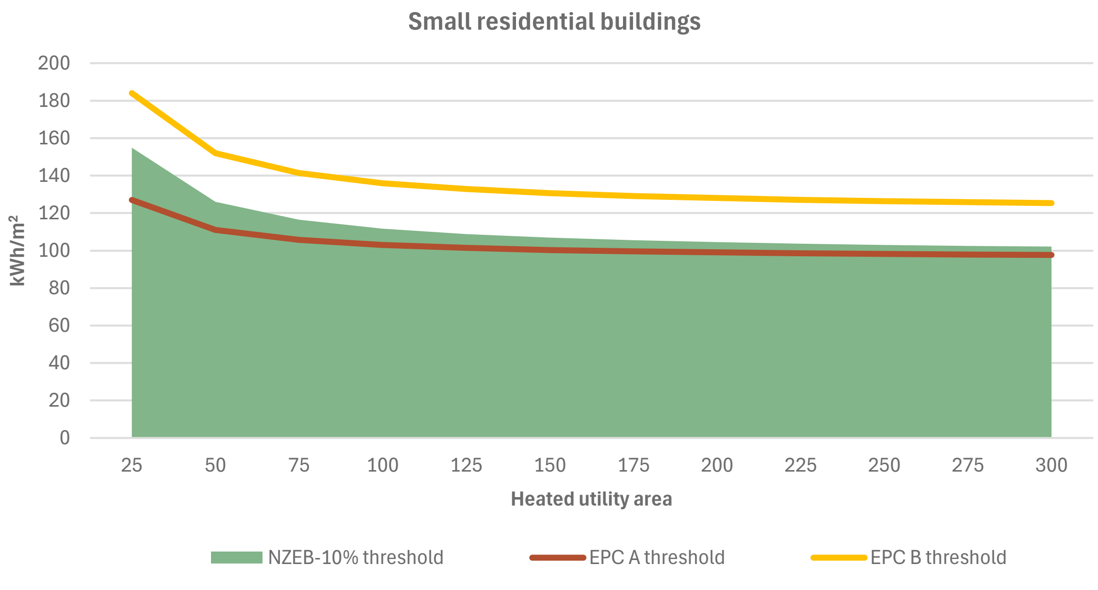


Figure 3-3 Eligibility of small residential buildings. Source: Multiconsult

3.1.3 Eligibility of apartment buildings

This section covers apartment buildings assessed using a building-level EPC, where eligibility is determined based on the energy performance of the building as a whole. Apartment buildings completed since 31 December 2020, with an EPC A, or an EPC B and calculated specific net delivered energy below the defined threshold, qualify for the new-build criterion NZEB-10 percent.

For buildings with a building-level EPC (available since March 2024), an EPC A is sufficient to identify and qualify apartment buildings (as illustrated in the last rows of Table 3-2). Some EPC B buildings may also qualify, using the calculated specific net delivered energy available from the EPC system. The practical approach utilizing detailed data on the building is illustrated in Figure 3-4.

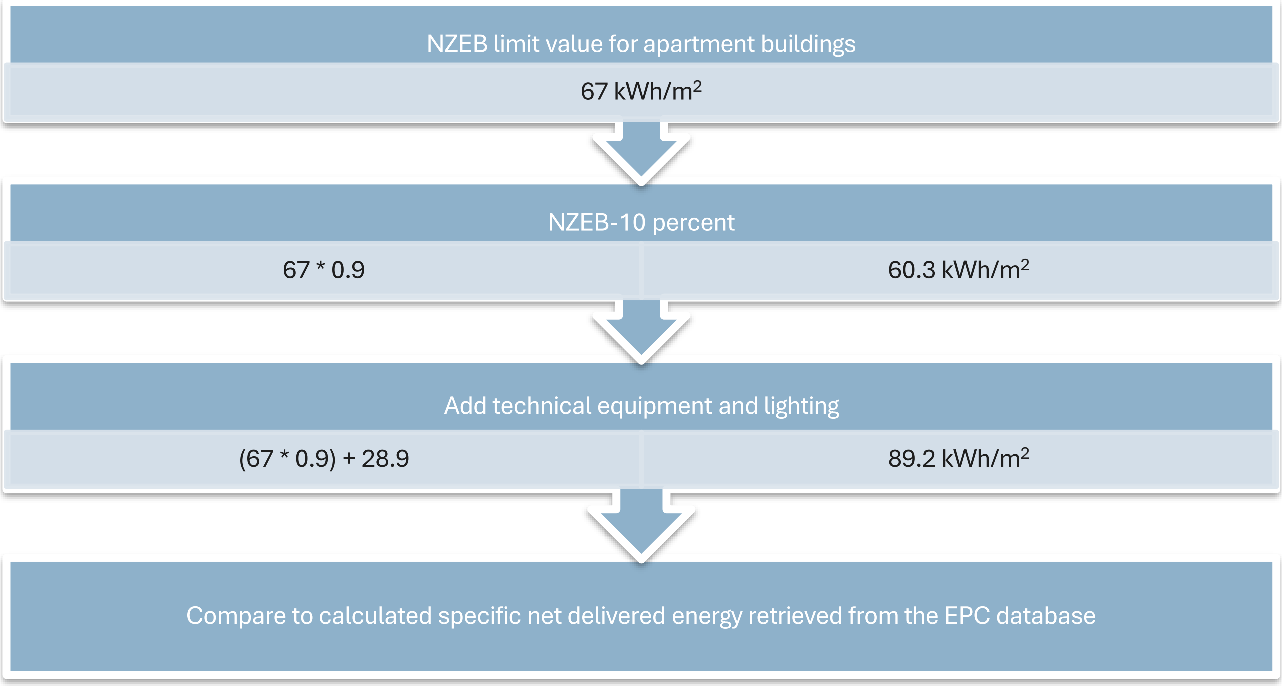


Figure 3-4 How to compare NZEB-10 percent to calculated specific net delivered energy from the EPC system for apartment buildings.

3.1.4 Eligibility of apartments

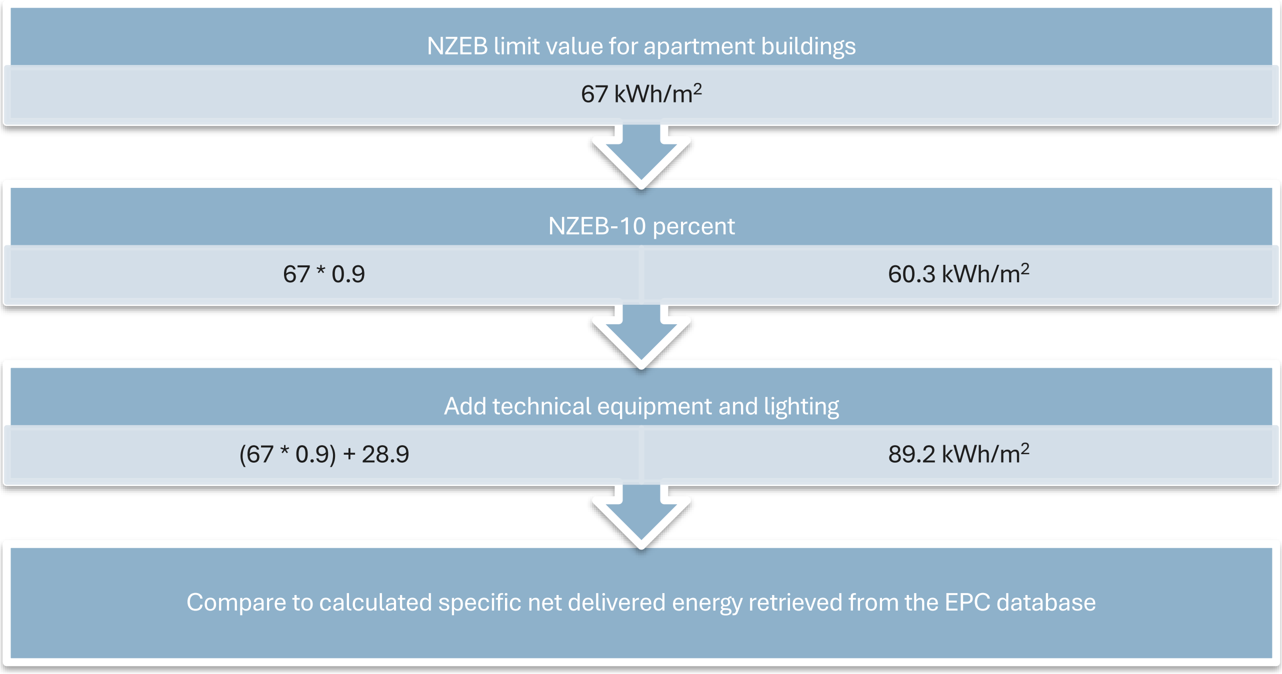
This section covers individual apartments where eligibility is assessed using the apartment's own EPC data. Apartments completed since 31 December 2020, with calculated specific net delivered energy below the defined threshold, qualify under the newbuild criterion NZEB-10 percent.

Figure 3-5 illustrates two potential approaches to understanding and comparing the NZEB definition and the EPC data for individual apartments.

Step 1 translates the NZEB-10 percent threshold to a limit value comparable to the calculated specific net delivered energy in the EPC system. This step is independent of apartment and apartment building size and follows the same approach as for apartment buildings in Figure 3-4.

Step 2 is an optional additional check that can be applied alongside Step 1, accounting for the fact that calculated specific net delivered energy for an individual apartment is generally equal to or higher than for the building as a whole. This step requires information on the EPC energy rating, apartment area, and total apartment building area. As illustrated in Figure 3-5, Step 2 uses an apartment of 65 m^2 just qualifying for EPC A, placed in a 2,000 m^2 building. For large buildings, the area correction factor has a diminishing effect (see Table 3-2), meaning national average area data can be used where precise figures are unavailable.

STEP 1



STEP 2

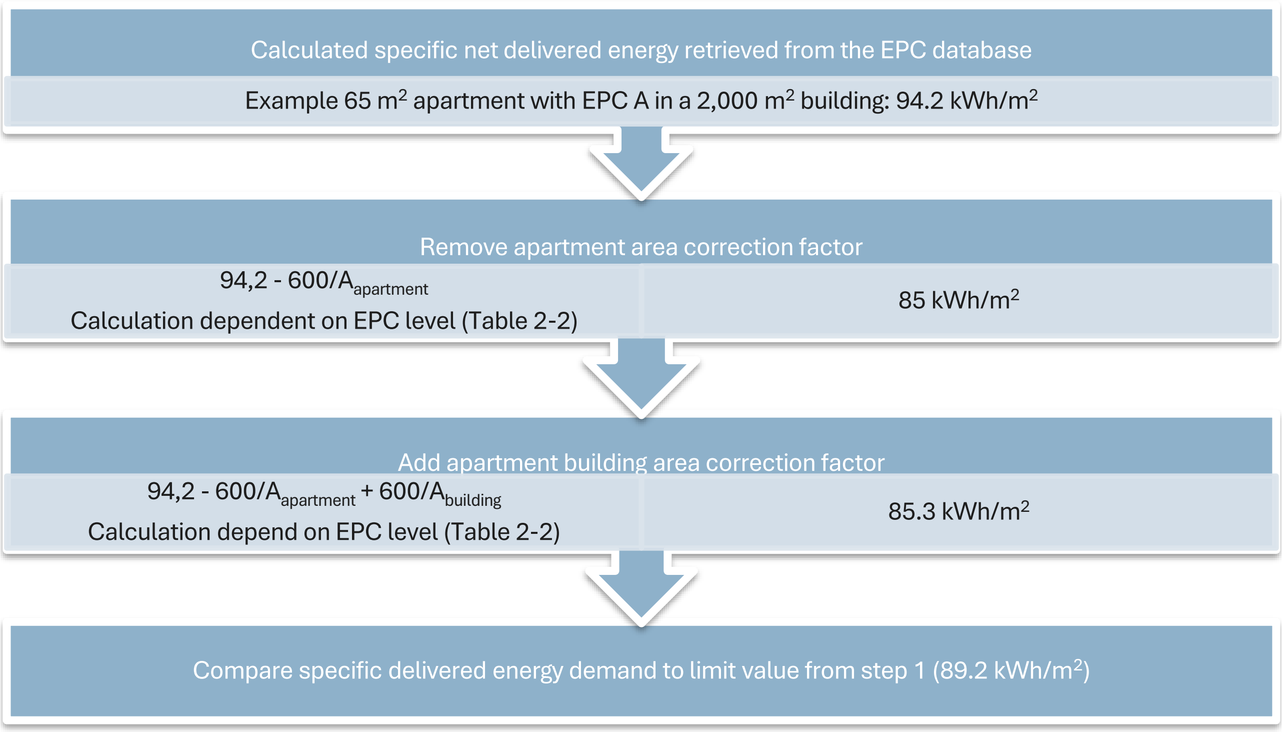


Figure 3-5 How to compare NZEB-10 percent to specific energy demand from the EPC system for individual apartments.

The calculation in Step 2 shows that the correction factor $600/A_{building}$ must be higher than 4.2 for an apartment with EPC A to not qualify as a green building. This value (4.2) represents the difference between the NZEB-10 percent threshold and the EPC A threshold (89.2 - 85). For the correction factor to exceed 4.2, the apartment building's area must be less than 142.86 m^2, which is not a realistic size for an apartment building in Norway.

Based on this assessment, we can conclude that all apartments completed after 31 December 2020 with an EPC label A qualify according to the NZEB-10 percent criterion. Apartments with an EPC label B may also qualify, depending on energy demand.

3.2 Residential buildings built before 2021: Buildings complying with TEK10/TEK17

Existing Norwegian residential buildings that comply with the Norwegian building code of 2010 (TEK10) and later codes are eligible for green bonds, as all these buildings have significantly better energy standards and account for less than 15 percent of the residential building stock. A two-year lag between the implementation of a new building code and the buildings built under that code has been accounted for[1].

The eligible assets identified in the portfolio meet the sector eligibility criteria for Norway, formulated by the Climate Bonds Initiative[2] [11] and the technical eligibility criteria in the EU Taxonomy [6].

As of 2025, 14 percent of all Norwegian residential buildings are eligible according to the DNB criterion, including buildings completed after 31 December 2020.

Changes in the Norwegian building code have over several decades consistently resulted in more energy efficient buildings. Figure 3-6 illustrates how the calculated net energy demand declines with decreasing building age. Note that, for residential buildings, there were no revisions to energy efficiency requirements made between TEK07 and TEK10.

Figure 3-6 Development in calculated specific net energy demand based on building code and building tradition. Source: Multiconsult, SIMIEN simulations

Figure 3-7 shows the age distribution of the total Norwegian residential building stock. The figure shows that 14 percent of all Norwegian residential buildings are eligible according to the DNB criterion (built according to TEK10 and TEK17).

[1] TEK10 was implemented in July 2010, however since the energy requirements were unchanged from TEK07 to TEK10 it is a very robust assumption that all buildings finished in 2012 or later have used energy requirements according to TEK10.

[2] The CBI criteria allow for including small residential buildings built under TEK07. These buildings are however not included in the DNB Green Finance Framework.

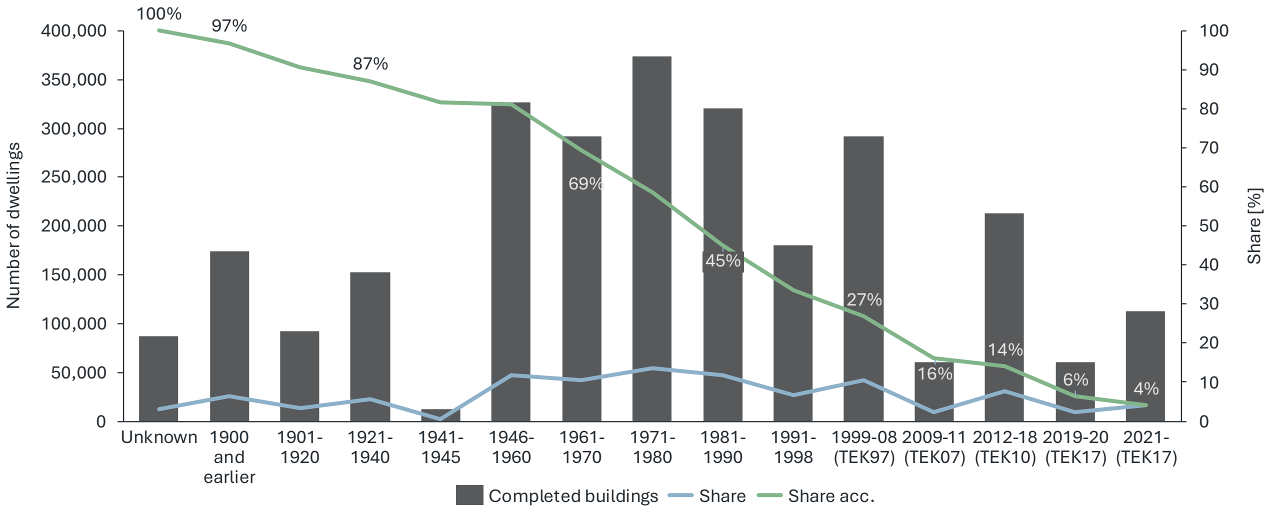


Figure 3-7 Age and building code distribution of dwellings. Source: [10], Multiconsult

Combining the information on the calculated energy demand related to building code in Figure 3-6 and information on the residential building stock in Figure 3-7, the calculated average specific energy demand of the residential Norwegian building stock (baseline) is 200 kWh/m^2 for apartments and 257 kWh/m^2 for small residential buildings. Compared to the average residential building stock, the younger and qualifying part of the building stock (TEK10/TEK17) yield calculated reductions in specific energy demand of approximately 50 percent, cf Table 3-3. These reductions are used in calculations of avoided energy usage and greenhouse gas (GHG) emissions in section 5.

Table 3-3 Energy demand of the residential Norwegian building stock [12]

Building category	Average total stock (baseline) [kWh/m^2/year]	TEK17 [kWh/m^2/year], cf Figure 3-6	TEK10 [kWh/m^2/year], cf Figure 3-6
Apartments	200	92	110
Small residential buildings	257	107	126

The validity of the TEK10/TEK17 eligibility criterion following the launch of the new EPC system is discussed in subsection 2.3.

4 Emission factors for impact assessment of buildings

This section outlines the emission factors used in the assessment of the green bond eligible part of DNB's residential portfolio.

The CO_2-emissions resulting from in-use energy demand in residential buildings depends to a large degree on the age of the building. This is due to two factors: the differences in energy efficiency requirements in the building code, and development in the predominant solutions and energy sources for heating in new buildings. Examples of the latter are direct electric heating, several types of heat pumps, bioenergy, and district heating. The share of fossil fuel is very low and declining.

Since the Norwegian buildings are predominantly heated by electricity, the placement of the system boundary for power production heavily influences the emission factor. Since the financed qualifying objects in the portfolio are rather new, and expected to have a 60-year life, the impact is considered best illustrated by the yearly average CO_2 emissions in their lifetime. The main emission factor used in this green portfolio impact assessment reflects an average in the building's lifetime, assuming a decarbonisation in the European energy system, calculated from 2018.

Finans Norge released a guidance document for the calculation of financed GHG emissions in 2023, including recommendations for grid factors to be used [13]. To demonstrate how emissions vary depending on grid factor, the two recommended grid factors from the Norwegian Water Resources and Energy Directorate (NVE) are included. That is, the most recent Norwegian physically delivered electricity for 2024 [14] and the Norwegian residual mix for 2024 [15]. The Norwegian residual mix is calculated by the Association of Issuing Bodies, which is the organization responsible for developing and promoting the European Energy Certificate System (EECS) [16].

The three grid factors are summarized in Table 4-1 and described in more detail in the following subsections.

Table 4-1 Electricity production emission factors (CO_2-eq) without and with the influx of other heating sources for buildings in three scenarios. Sources: [14], [15], [17],

Scenario	Description	Emission factor electricity [gCO_2-eq/kWh]	Emission factor considering other heating sources[3] [gCO_2-eq/kWh]
European (EU27+ UK+ Norway) NS 3720:2018 electricity mix over lifetime	Location-based electricity mix with wide system boundary including EU countries, UK and Norway, average emissions over building's 60-year lifetime	136	115
Norwegian NVE physically delivered electricity 2024	Location-based production mix with narrow system boundary of Norway only but including net export/ import only to neighbouring countries and average annual emission factors	12	13
Norwegian NVE residual mix 2024	Market-based residual mix for Norway with a European marketplace	535	443

To calculate the impact on climate gas emissions, the grid factors are applied to all electricity consumption in all residential buildings. Electricity is, as mentioned, the dominant energy carrier to Norwegian residential buildings, but the energy mix also includes other energy carriers such as bio

[3] Calculated by Multiconsult, based on building code assignments for the Norwegian Building Authority (DiBK).

energy and district heating. The influx of other energy sources for heating purposes is applied to all electricity emission factors resulting in the "Emission factor considering other heating sources", found in the rightmost column in Table 4-1.

4.1 European (EU27+ UK+ Norway) electricity mix over lifetime

Using a life-cycle analysis, the Norwegian Standard NS 3720:2018 *Method for greenhouse gas calculations for buildings* [17] considers international trade in electricity and the fact that consumption and grid factors do not necessarily mirror domestic production. The resulting emission factors, as an average in the lifetime of an asset, are based on a linear trajectory from the current grid factor to a close to zero emission factor in 2050 and steady until the end of the lifetime of the buildings.

The mentioned standard calculates, on a life-cycle basis, the average emission factors for the next 60 years according to a European (EU27+ UK+ Norway) system boundary and a Norwegian system boundary, as described in Table 3-3.

Norway is part of a larger, integrated European power grid, and import and export of electricity throughout the year means not all electricity consumed in Norway is produced here. The standard also calculates the equivalent Norwegian mix emission factor. However, in this analysis, we apply only the European mix factor, as it represents a more conservative approach.

The European electricity factor is 136 gCO_2-eq/kWh, which constitutes the GHG emission intensity baseline for energy use in buildings with a life span of 60 years and assuming that the CO_2 emission factor of the European power production mix is close to zero by 2050. This is a location-based emission factor, and the value is comparable to the equivalent determined in Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting (January 2020).

4.2 Norwegian NVE physically delivered electricity 2024

NVE calculates a climate declaration for physically delivered electricity for the previous year [14]. This factor represents electricity consumed in Norway, accounting for emissions from net import and export of electricity from neighbouring countries and these countries' average annual emission factors. For 2024 this grid factor is 12 gCO_2-eq/kWh [14]. This is also a location-based grid factor.

4.3 Norwegian NVE residual mix 2024

Certificates of origin, direct power purchase agreements or other documentation of which power has been purchased for the buildings in the portfolio are not available to the bank. There is also no basis for making assumptions on the share of the energy consumed by the buildings in the portfolio that has been purchased with Guarantees of Origin.

An alternative market-based grid factor for Norway is then the electricity disclosure published by NVE [14] and Association of Issuing Bodies [18]. This is the electricity residual mix of the country, which shows the sources of the electricity supply that is not covered with Guarantees of Origin, considering a European marketplace for electricity. Guarantees of Origin are not very widespread in the Norwegian electricity end-user market, resulting in a high emission factor of 535 gCO_2-eq/kWh for 2024 [18].

5 Green portfolio analysis and impact assessment

The residential building green loan portfolio of DNB consists of residential buildings that meet the criteria as outlined in section 3. The data supplied by the bank includes building type, building year, area, registered and estimated energy grades, estimated specific delivered energy demand, loan balance and asset value for the assets. Where missing, area per residence has been calculated based on average area derived from national statistics. [10] Objects with missing loan balances or market values, or with building types outside the scope, are excluded from the analysis.

5.1 Eligible buildings

The more than 44,000 eligible buildings in the DNB Bank and DNB Boligkreditt portfolio as of 31 December 2025 are estimated at almost 5.8 million square meters. The number of objects and associated areas eligible per criteria is presented in Table 5-1.

Table 5-1 Eligible objects and calculated building areas.

	Building code	No. of objects [#]	Area of qualifying objects in portfolio [m^2]
Apartments	EPC Label A (built 01.01.21 to 31.12.25)	3,403	276,846
	TEK17 (built before 01.01.21)	5,582	458,444
	TEK10 (built before 01.01.21)	15,848	1,336,450
Small residential buildings	EPC Label A (built 01.01.21 to 31.12.25)	2,124	383,060
	TEK17 (built before 01.01.21)	3,538	650,500
	TEK10 (built before 01.01.21)	14,330	2,693,321
Sum		**44,825**	**5,798,621**

5.2 Avoided emissions

Impact for the eligible residential objects (assets) is calculated by first estimating the avoided (reduced) energy demand due to an object being more energy efficient than the average building stock. This reduction in energy demand is then multiplied by the area of the eligible asset and the emission factors from Table 4-1, and finally summed up for all the units. A proportional relationship is expected between energy consumption and emissions in impact calculations. Not all residential buildings are necessarily included in one single bond issuance.

As outlined in subsection 3.2, the baseline is the calculated average specific energy demand of the residential Norwegian building stock, i.e. 200 kWh/m2 for apartments and 257 kWh/m2 for small residential buildings.

For new buildings qualifying according to the NZEB-10 percent criterion, the reduction is calculated based on the difference between the calculated specific energy usage of each object and the baseline.[4]

For buildings qualifying according to TEK10 or TEK17, the reduction is calculated based on the difference between the energy demand for the building code and the baseline, cf subsection 3.2.

[4] For previous analyses, incl. YE-2024, specific energy demand estimates per object have not been available. Impact for NZEB-10 percent eligible buildings has therefore previously been calculated using the method described for TEK17 buildings.

Table 5-2 indicates how much more energy efficient the eligible part of the portfolio is compared to the baseline. The area and avoided energy usage of the eligible buildings are also scaled by the bank's share of financing (loan-to-value ratio, aka "bank's engagement").

Table 5-2 Area of eligible buildings in the portfolio and corresponding savings in energy usage compared to the average residential building stock in Norway – in total and scaled by the bank's share of financing.

	Area [mill. m^2]	Avoided energy usage compared to baseline [GWh/year]
Eligible buildings in portfolio	5.799	717
Eligible buildings in portfolio – scaled by the bank's share of financing	2.619	329

Table 5-3 presents how much the calculated reductions in energy demand from Table 5-2 constitute in CO_2-emissions using the three emission factors described in section 4: European NS 3720:2018 electricity mix, and Norway specific emission factors, representing physically delivered electricity and the residual mix for 2024.

Table 5-3 Avoided emissions (CO_2-eq) of eligible objects in the portfolio compared to baseline. Using grid factors European mix over the buildings' lifetime, Norwegian physically delivered electricity mix and Norwegian residual mix.

	Emission factor[5] [gCO_2/kWh]	Avoided CO_2-emissions [tonnes CO_2/year]	Avoided CO_2-emissions – scaled [tonnes CO_2/year]
Eligible buildings – European lifetime mix	115	82,400	37,810
Eligible buildings – Norwegian physically delivered el. 2024	13	9,170	4,210
Eligible buildings – Norwegian residual mix 2024	443	317,650	145,770

[5] Taking into consideration other heating sources than electricity, see section 4.

5.3 Impact reporting sheet December 2025

DNB Bank & Boligkreditt Green Covered Bond and Senior Bond Impact Reporting

Portfolio date: 31st of December 2025

Eligible Project Category	Signed Amount	Share of Total Financing	Eligibility for Green Bonds	Annual Site Energy Savings	Annual CO2 Emission Avoidance
a/	b/	c/	d/	e/	e/
Residential Green Buildings	**NOK**	**%**	**%**	**GWh**	**tCO2**
Green residential buildings in Norway - Norwegian physically delivered electricity mix	129,646,352,320	100	100	717	9,170
Green residential buildings in Norway - European lifetime mix					82,400

Portfolio based green bond report according to the Harmonized Framework for Impact Reporting

a/ Eligible category
b/ Signed amount represents the amount legally committed by the issuer for the portfolio or portfolio components eligible for Green Bond financing
c/ This is the share of the total portfolio cost that is financed by the issuer
d/ This is the share of the total portfolio costs that is Green Bond eligible
e/ Impact indicators
-Site energy savings calculated using the difference between the eligible buildings and the national building stock benchmarks
-Annual CO2 emission avoidance

6 References

[1] DNB Bank ASA, 10 2023. [Online]. Available: https://www.ir.dnb.no/funding-and-rating/green-bond-framework.

[2] Enova SF, "Karakterskalaen," Enova SF, 10 06 2015. [Online]. Available: https://www.enova.no/energimerking/om-energimerkeordningen/om-energiattesten/karakterskalaen/. [Accessed 2025].

[3] Enova SF, "Ny karakterskala," 2026. [Online]. Available: https://enova.no/nb/energimerking/ny-karakterskala. [Accessed 2026].

[4] Norwegian Ministry of Energy, "Taksonomien: Terskelverdier for energieffektivitet i bygninger," 28 April 2026. [Online]. Available: https://www.regjeringen.no/no/aktuelt/taksonomien-terskelverdier-for-energieffektivitet-i-bygninger/id3108066/.

[5] Finans Norge, "Veileder for vurdering av taksonomiforenlig eiendom," November 2025. [Online]. Available: https://www.finansnorge.no/dokumenter/maler-og-veiledere/veileder-for-vurdering-av-taksonomiforenlig-eiendom/.

[6] European Commission, *EU Taxonomy, Annex 1, chapter 7.1 Construction of new buildings,* Brussels, 2021.

[7] Kommunal- og distriktsdepartementet, "Veiledning om beregning av primærenergibehov i bygninger og energirammer for nesten nullenergibygninger," 12 01 2024. [Online]. Available: https://www.regjeringen.no/no/aktuelt/taksonomien-maler-for-rapportering-og-retting-av-veiledning-om-primarenergifaktorer/id3021759/.

[8] Kommunal- og distriktsdepartementet, "Rettleiing om utrekning av primærenergibehov i bygningar og energirammer for nesten nullenergibygningar," 31 01 2023. [Online]. Available: https://www.regjeringen.no/no/aktuelt/rettleiing-om-utrekning-av-primarenergibehov-i-bygningar-og-energirammer-for-nesten-nullenergibygningar/id2961158.

[9] SN/K 34 Bygningers energiytelse, "NS 3031:2014 Beregninger av bygningers energiytelse - Metode og data," Standard Norge, Oslo, 2014.

[10] Statistics Norway, "06513: Dwellings, by type of building and utility floor space (M) 2007 - 2024," 12 03 2024. [Online]. Available: https://www.ssb.no/en/statbank/table/06513.

[11] Climate Bonds Intitiative, "Buildings - Sector criteria," Climate Bonds Initiative, 2018. [Online]. Available: https://www.climatebonds.net/our-expertise/climate-bonds-standard-and-certification-scheme/sector-criteria/buildings. [Accessed 29 04 2026].

[12] SSB, Multiconsult.

[13] Finans Norge, "Veileder for beregning av finansierte klimagassutslipp," 2024. [Online]. Available: https://www.finansnorge.no/dokumenter/maler-og-veiledere/veileder-for-beregning-av-finansierte-klimagassutslipp/.

[14] NVE, "Strømdeklarasjoner," 2025. [Online]. Available: https://www.nve.no/energi/energisystem/energibruk/stroemdeklarasjoner/.

[15] The Association of Issuing Bodies, "European Residual Mixes 2024," Association of Issuing Bodies, Brussels, 2025.

[16] The Association of Issuing Bodies (AIB), 2025. [Online]. Available: https://www.aib-net.org/.

[17] SN/K 356 Klimagassberegninger for bygg, "NS 3720:2018 Metode for klimagassberegninger for bygninger," Standard Norge, Oslo, 2018.

[18] The Association of Issuing Bodies (AIB), "Residual Mixes and European Attribute Mix of 2024," 2025. [Online]. Available: https://www.aib-net.org/facts/european-residual-mix/2024.