Report

Sparebanken Møre Green Portfolio Impact Assessment 2026

CLIENT

Sparebanken Møre

SUBJECT

Impact assessment – energy-efficient buildings and renewable energy

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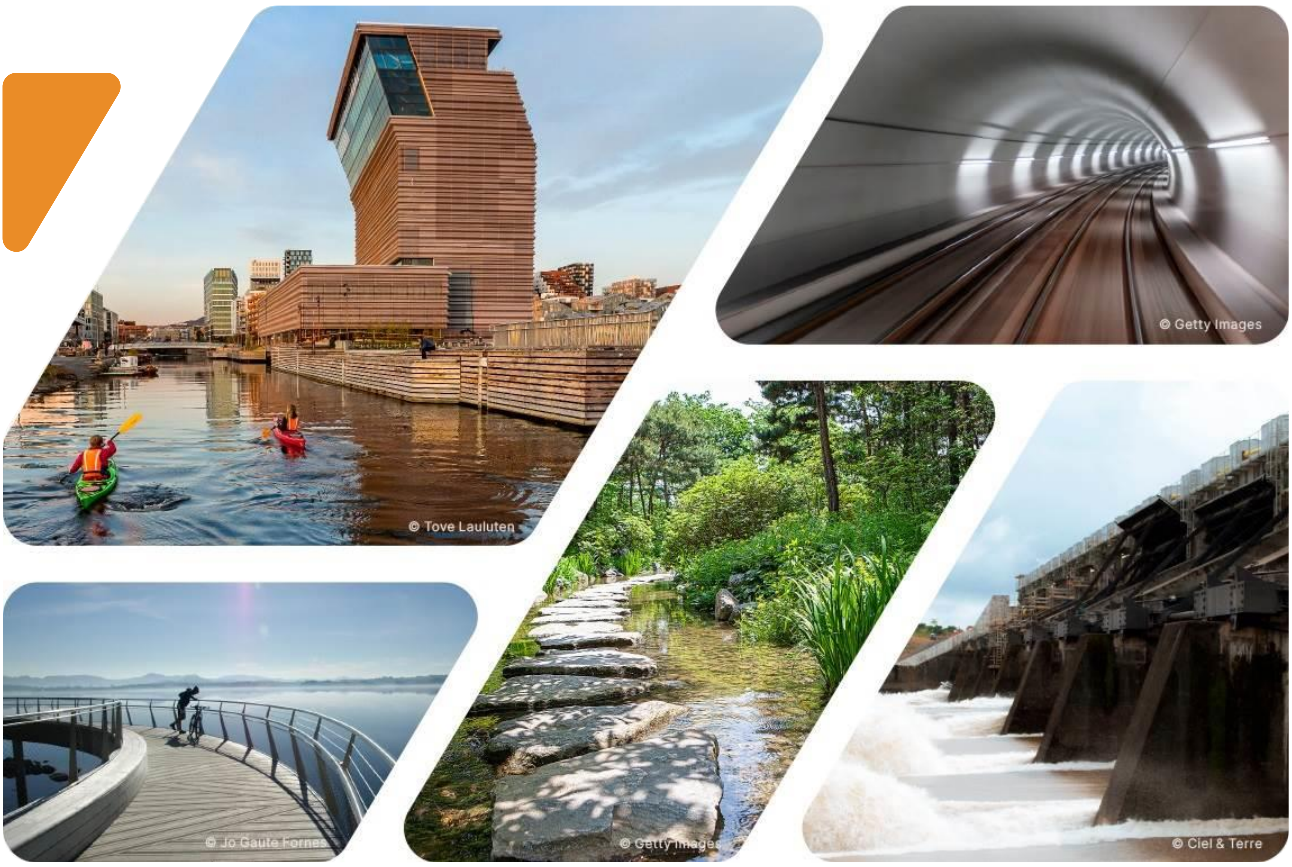

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CONTACT	Cecilie Myrstad	PREPARED BY	Kjersti Rustad Kvisberg, Are Grongstad
		RESPONSIBLE UNIT	10105080 Renewable Energy Advisory Services

SUMMARY

In summary, the assessed impact is significant for all examined asset classes in Sparebanken Møre's portfolio, which qualify according to the bank's green bond criteria.

The impact of the assets in the portfolio is estimated at 110,900 tonnes *CO_2-eq*/year:

Energy efficient residential buildings	*11,500 tonnes CO_2-eq/year*
Energy efficient commercial and public buildings	*3,900 tonnes CO_2-eq/year*
Renewable energy	*95,500 tonnes CO_2-eq/year*
Total	***110,900 tonnes CO_2-eq/year***

When scaled by the bank's share of financing, the impact is estimated at 50,000 tonnes CO_2-eq/year:

Energy efficient residential buildings	*6,400 tonnes CO_2-eq/year*
Energy efficient commercial and public buildings	*2,800 tonnes CO_2-eq/year*
Renewable energy	*40,800 tonnes CO_2-eq/year*
Total	***50,000 tonnes CO_2-eq/year***

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1 Introduction

On assignment from Sparebanken Møre, Multiconsult has assessed the impact of the bank's loan portfolio eligible for green bonds. The green loan portfolio of Sparebanken Møre assessed in this report includes residential, commercial, and public buildings, as well as renewable energy power plants.

In this document we briefly describe Sparebanken Møre's green bond qualification criteria, the evidence for the criteria and the analysis results of the loan portfolio. The eligibility criteria and the green portfolio impact assessment results are described in section 4 (residential buildings), 5 (commercial and public buildings) and 6 (renewable energy power plants). More detailed documentation on methodologies and eligibility criteria is made available on Sparebanken Møre's website [1].

2 Emission factors for impact assessment

The CO_2 emissions resulting from energy demand in buildings depend to a large degree on building age. This is due to two factors: differences in energy efficiency requirements in the building code, and development in the predominant solutions and energy sources for heating in new buildings.

Multiconsult considers these two factors when calculating the greenhouse gas (GHG) emission factors to be used in the green portfolio impact assessments. This section first presents some general statistics on energy usage in Norwegian buildings and the Norwegian electricity production, before presenting the grid factors used in the subsequent sections.

2.1 Electricity demand and production

The eligible assets are either producing renewable energy and delivering it into the existing power system or using electricity from the same system. The energy consumption of Norwegian buildings is predominantly electricity, with some district heating and bioenergy. The share of fossil fuel is very low and declining.

Renewables accounted for approximately 99 percent of the total (157 TW) Norwegian electricity production in 2024, the final percentage being thermal power production from natural gas, biomass, and waste heat [2] [3]. The fuel mix in Norwegian district heating production (5.9 TWh) included only three percent from fossil fuels (oil and gas) in 2024 [4].

Figure 2-1, which is based on numbers from the Association of Issuing Bodies, shows that the Norwegian production mix in 2024 resulted in emissions of 7 gCO_2/kWh [5]. In the figure, the production mix is included for other selected European states for comparison.

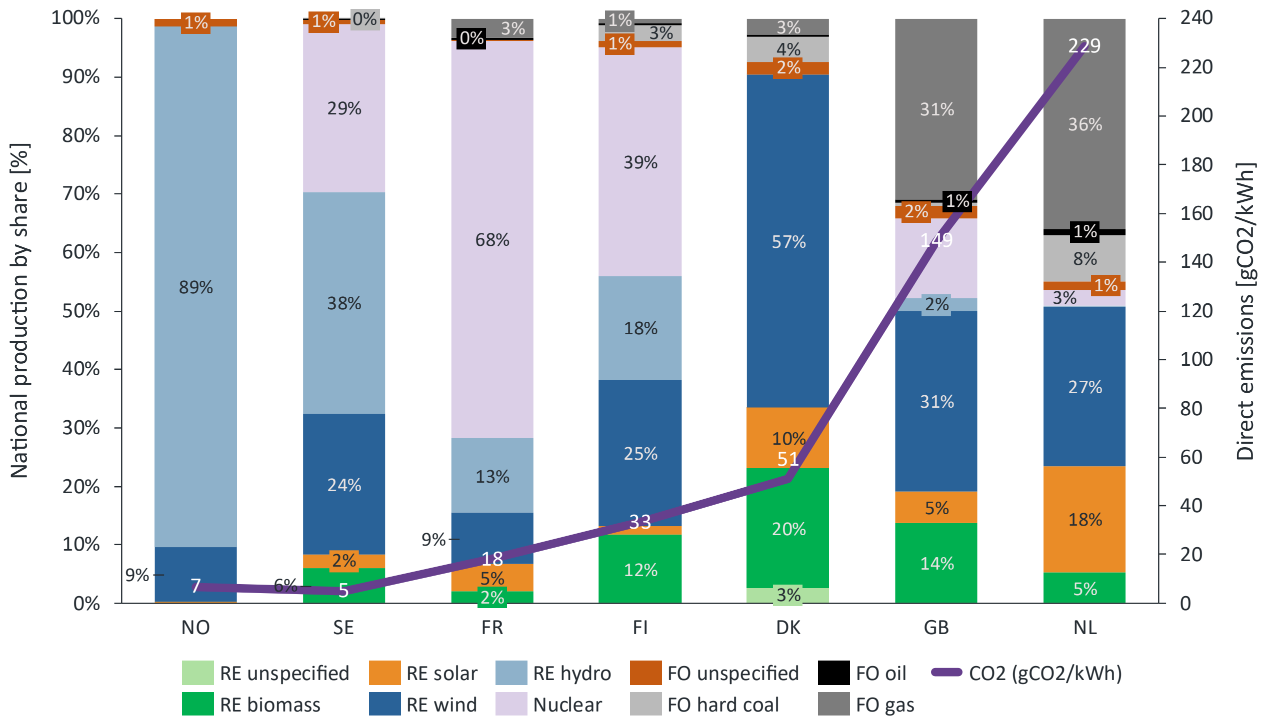

Figure 2-1 National electricity production mix in selected European countries. Source: [5]

As Figure 2-1 shows, emissions from power production vary between countries. Due to the interconnection of the power grid, the placement of the system boundary for power production heavily influences the GHG emission factor associated with said production. To demonstrate how the choice of system boundary – whether limited to Norway or expanded to Europe as a whole – and the selection of emission factors influence the results, the impact assessments in this report are presented using several different emission factors, cf subsection 2.2.

2.2 Emission factors for impact assessment of buildings

This subsection outlines the emission factors used in the assessment of the green bond eligible part of Sparebanken Møre's building portfolio.

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 grid factor used in this green portfolio impact assessment reflects an average in the building's lifetime, assuming a decarbonisation in the European energy system.

Finans Norge released a guidance document for the calculation of financed GHG emissions in 2023, including recommendations for grid factors to be used [6]. 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 [7] and the Norwegian residual mix for 2024 [8]. 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) [9].

The grid factors are summarized in Table 2-1 below and described in more detail in the following subsections.

Table 2-1 Electricity production GHG factors (CO2-eq) with and without influx of other heating sources for buildings in three scenarios. (Source: NS 3720:2018, Table A. 1, NVE [6]*, AIB* [8]*)*

Scenario	Description	Emission factor electricity [gCO_2/kWh]	Emission factor incl. other heating sources [gCO_2/kWh] [10]
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 NS 3720:2018 electricity mix over lifetime	Location-based production mix with a narrow system boundary of just Norway, not including export and import, average emissions over building's 60-year lifetime	18	18
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 GHG emissions, the grid factors are applied to all electricity consumption in the buildings in the portfolio eligible for green bonds. Electricity is, as mentioned, the dominant energy carrier to Norwegian buildings, but the energy mix also includes other energy carriers such as bioenergy and district heating. The influx of different 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 2-1.

2.2.1 European (EU27+ UK+ Norway) and Norwegian electricity mix over lifetime

Using a life-cycle analysis, the Norwegian Standard NS 3720:2018 *Method for greenhouse gas calculations for buildings* [11] considers international trade in electricity and the fact that consumption and grid factors do not necessarily mirror domestic production. The resulting grid factors, as 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 2-1.

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 Norway only emission factor. Using the European mix is then a more conservative approach than the Norway only mix. Both are applied in this analysis.

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 50-60 years and assuming that the CO_2 emission factor of the European power production mix is close to zero by 2050. This value is comparable to the equivalent determined in Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting (January 2020). The equivalent Norwegian factor is 18 gCO_2-eq/kWh.

2.2.2 Norwegian physically delivered electricity

NVE calculates a climate declaration for physically delivered electricity for the previous year [7]. 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 [7]. This is also a location-based grid factor.

2.2.3 Norwegian residual mix

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 [7] and Association of Issuing Bodies [8]. 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 [8].

2.3 Emission factors for renewable energy production

For renewable energy, the impact calculations use the electricity emission factors from Table 2-1 as baselines. The difference between the grid electricity and the renewable energy emissions is considered the avoided emissions per produced unit of electricity. The resulting factors are described more fully in subsection 6.3.1.

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

3.1 The Norwegian EPC system until 2026

The Norwegian Energy Performance Certificate (EPC) system became operative in 2010 and was made mandatory for all new buildings completed after the 1st of 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 heating rating ranges from colour green (best) to red (weakest). 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 3-1 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 [12]. Note that the calculation of net delivered energy includes all standard consumption, including lighting and technical equipment.

Table 3-1 The energy rating scale used in the previous Norwegian EPC system with thresholds for selected building categories. Source: [12]

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	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

3.2 The new Norwegian EPC system and upcoming building code updates

On January 1, 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 3-2.

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 3-2 The energy rating scale used in the new Norwegian EPC system with thresholds for selected building categories. Source: [13]

Building category	Calculated specific weighted net delivered energy per m^2 heated utility area [kWh/m^2]						
	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	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 for a building in Norway is valid for 10 years from the date of issue under both the previous and new EPC systems.

Furthermore, the Norwegian Ministry of Energy (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.

3.3 The Norwegian Ministry of Energy's top 15 percent guidance publication

On 6 June 2025, the ED published thresholds for the top 15 and 30 percent most energy-efficient buildings in the Norwegian building stock within various building categories [14]. The threshold values, however, are for most building categories much stricter than those proposed by the Norwegian Water Resources and Energy Directorate (NVE) which are based on calculations done by Norconsult. This indicates an error in the calculations underlying the ED guidance publication. NVE says that the threshold values will most likely be corrected in the near future through an updated ED guidance publication. Thus, there are currently no official top 15 percent guidance thresholds available.

3.4 Multiconsult's methodology

The analysis in this report is based on Sparebanken Møre's building portfolio as of December 31, 2025. There are hence no building objects in the portfolio with an EPC issued under the new system. When generally referring to EPC or the Norwegian EPC system in this report, we hence mean the previous EPC system. Moreover, in the absence of official top 15 percent thresholds, the qualification and calculation methodology in this report will hence be based on the previous EPC system and the top 15 percent methodology described in section 4 and 5.

4 Residential buildings

4.1 Eligibility criteria

According to Sparebanken Møre's Green Bond Framework, residential buildings in Norway are eligible for green bonds if they meet one of the following criteria:

i. ***Buildings built in 2021 or later:***

- Buildings complying with the relevant NZEB-10 percent threshold.

ii. ***Buildings built before 2021:***

- Buildings with EPC A label or within the top 15 percent low carbon buildings in Norway.

iii. ***Renovated buildings:***

- Major renovations resulting in a reduction of primary energy demand (PED) by at least 30 percent; or
- Energy efficient measures which receive support from Enova.

4.1.1 Criterion i: Buildings built in 2021 or later

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 NZEB. The energy performance is to be documented by an EPC.

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. The Norwegian national definition of NZEB was published in January 2023 [15] with a correction issued in January 2024 [16].

All residential buildings completed after 31 December 2020 with an EPC label A qualify according to the NZEB-10 percent criterion. Residential buildings with an EPC label B may also qualify, depending on energy demand.

4.1.2 Criterion ii: Buildings built before 2021

All residential buildings completed before 2021 with EPC labels A or B, or which comply with the Norwegian building code of 2010 (TEK10) and later codes, are eligible for green bonds. These buildings have significantly better energy standards and account for less than 15 percent of the residential building stock built before 2021.

Figure 4-1 illustrates the cumulative percentages of building code and EPC label combinations for the total residential building stock built before 2021 in Norway. The cumulative percentage calculation precludes double counting – each building is only counted once in the analysis. A time lag between building code implementation and buildings completion is taken into account. Multiconsult assumes a two-year lag as a robust and conservative estimate.

Buildings with EPC A represent 1.1 percent of the total residential building stock built before 2021; Buildings with EPC A and EPC B represent 7 percent; Buildings with EPC labels A and B in combination with TEK17 represent 7.8 percent. Buildings with EPC labels A and B in combination with TEK10 and later codes represent 11.9 percent; EPC labels A, B and C represent 15.2 percent, and so forth. The data thus demonstrate that all residential buildings built before 2021 with EPC labels A or B, or which comply with the Norwegian building code of 2010 (TEK10) or later codes, have significantly better energy standards and account for less than 15 percent of the total residential building stock built before 2021.

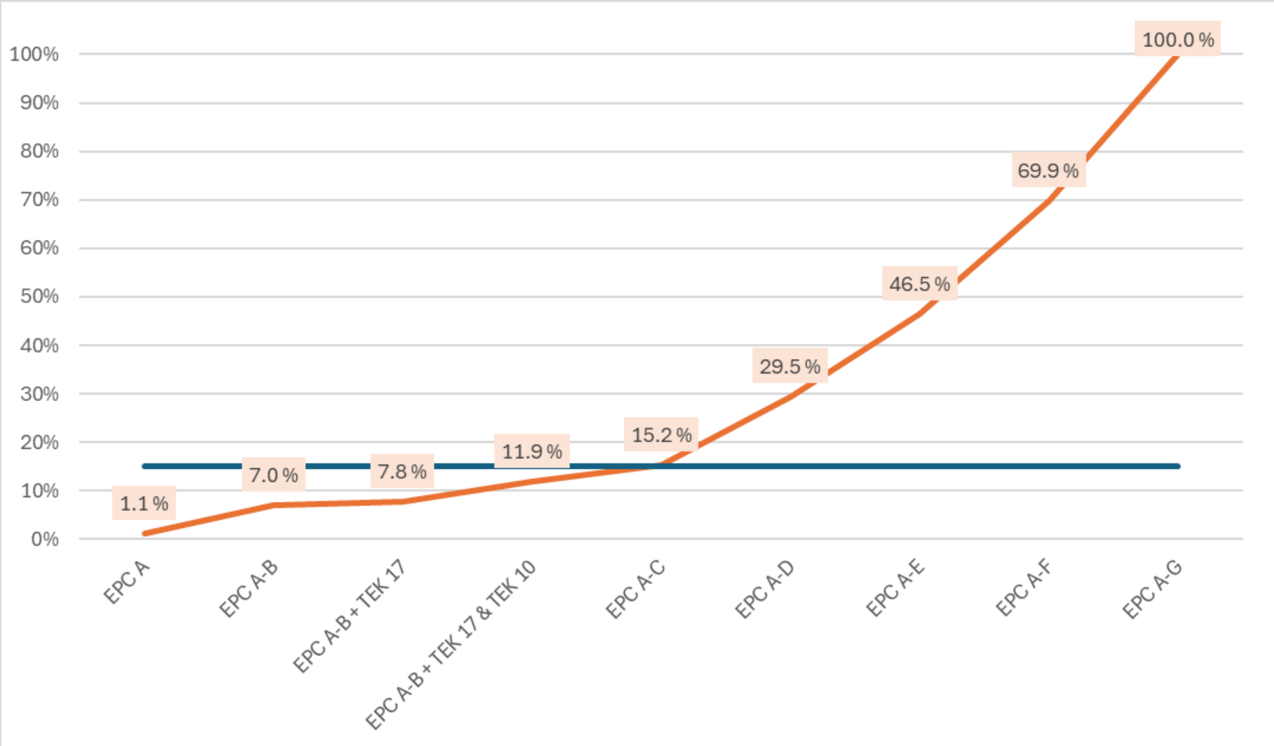

Figure 4-1 Cumulative percentages for criteria combinations, relative to the total residential building stock built before 2021 in Norway. Source: [17]

4.1.3 Criterion iii: Renovated residential buildings

Residential buildings are eligible if, following renovation, they comply with the eligibility criteria for buildings built before or after 2021, cf subsection 4.1.1 and 4.1.2. Loans to renovate residential buildings qualify if the renovations lead to at least a 30 percent reduction in PED or include energy efficiency measures with Enova support. Eligibility for renovations and energy efficiency measures has not been assessed.

4.2 Impact assessment – residential buildings

Impact for the eligible residential objects 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 subsection 2.2, 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.

Over the past several decades, changes in the building code have promoted more energy-efficient buildings. By combining data on calculated energy demand based on building code requirements with information on the residential building stock, the average specific energy demand is estimated as presented in Table 4-1. These estimates are used as baselines in the impact calculations for the NZEB-10 percent and top 15 percent criteria.

Table 4-1 Estimated average specific energy demand for the residual building stock. Source: [18]

Building category	Average total stock (baseline) [kWh/m²]
Apartments	200
Small residential buildings	257

For 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.

For buildings qualifying according to top 15 EPC A and B, the reduction is calculated based on the difference between the energy demand for the achieved energy label and the baseline.

For buildings qualifying according to top 15 on TEK10 or newer, the reduction is calculated based on the difference between the energy demand for the building code and the baseline.

As presented in Table 4-3, the eligible residential buildings in Sparebanken Møre's portfolio are estimated to amount to nearly 743,000 square meters. The available data includes reliable areas for most objects. For objects where this data is not available, the area per dwelling is calculated based on the average area derived from national statistics [19]. Objects with missing loan balances or market values, or with building types outside the scope, are excluded from the analysis.

Eligibility is first checked against the NZEB-10 percent criterion for buildings built in 2021 or later. Buildings from 2020 and older are checked against the top 15 percent criterion. An object is only qualified based on the first criterion it fulfils, hence, no double counting of objects will occur.

As shown in Table 4-2, the majority of the 5,088 objects are eligible through the top 15 percent criterion. 88 percent are eligible under the top 15 percent criterion, and twelve percent are eligible under the NZEB-10 percent criterion.

Table 4-2 Eligible residential objects in Sparebanken Møre's portfolio.

	Number of qualifying buildings in portfolio						
	NZEB EPC A	NZEB EPC B	TOP 15 EPC A	TOP 15 EPC B	TOP 15 TEK17	TOP 15 TEK10	Sum qualifying
Apartments	107	136	157	142	239	902	1,683
Small residential buildings	231	133	591	1,083	261	1,106	3,405
Sum	**338**	**269**	**748**	**1,225**	**500**	**2,008**	**5,088**

Table 4-3 Calculated area of qualifying residential buildings (unscaled).

	Calculated area of qualifying buildings in portfolio [m²]						
	NZEB EPC A	NZEB EPC B	TOP 15 EPC A	TOP 15 EPC B	TOP 15 TEK17	TOP 15 TEK10	Sum qualifying
Apartments	9,590	11,122	14,002	13,426	19,790	76,412	144,342
Small residential buildings	33,980	19,500	105,570	215,545	43,675	180,325	598,595
Sum	**43,570**	**30,622**	**119,572**	**228,971**	**63,465**	**256,737**	**742,937**

Based on the calculated figures in Table 4-2 and Table 4-3, the energy efficiency of this part of the portfolio is estimated as described earlier in this subsection.

Electricity is the dominant energy carrier in Norwegian buildings, but the energy mix also includes bioenergy and district heating. Hence, the emission factors considering other heating sources in Table 2-1 are then used to calculate the impact on GHG emissions.

Table 4-4 indicates how much more energy efficient the eligible part of the portfolio is compared to the average residential Norwegian building stock. The table also presents how much the calculated reduction in energy demand constitutes in GHG emissions. The calculations are also scaled down to reflect Sparebanken Møre's share of financing (loan-to-value).

Table 4-4 Avoided energy demand and emissions (CO_2-eq) of eligible residential buildings in the portfolio compared to average building stock using four emission factors.

	Avoided energy demand compared to baseline [GWh/year]	Avoided CO_2 emissions compared to baseline [tonnes CO_2-eq/year]			
		European (EU27 + UK + Norway) NS 3720:2018 electricity mix	Norwegian NS 3720:2018 electricity mix	Norwegian NVE physically delivered electricity 2024	Norwegian NVE residual mix 2024
Eligible buildings in the portfolio	100	**11,500**	1,800	1,300	44,400
Eligible buildings in the portfolio - scaled by bank's engagement	56	**6,400**	1,000	700	24,700

5 Commercial and public buildings

5.1 Eligibility criteria

According to Sparebanken Møre's Green Bond Framework, commercial and public buildings in Norway qualify for green bonds if they meet one of the following criteria:

i. ***Buildings built in 2021 or later:***
- Buildings complying with the relevant NZEB-10 percent threshold; or
- Buildings certified as BREEAM-NOR or BREEAM In-use "Excellent" or better.

ii. ***Buildings built before 2021:***
- EPC A label or within the top 15 percent low carbon buildings in Norway; or
- Buildings certified as BREEAM-NOR or BREEAM In-use "Excellent" or better.

iii. ***Renovated buildings:***
- Major renovations resulting in a reduction of primary energy demand (PED) by at least 30 percent; or
- Energy efficient measures which receive support from Enova.

5.1.1 Criterion i: Buildings built in 2021 or later

All commercial and public buildings completed after 31 December 2020 with an EPC label A qualify according to the NZEB-10 percent criterion. Commercial and public buildings with an EPC label B may also qualify, depending on energy demand.

All commercial and public buildings completed after 31 December 2020 are also eligible if they have achieved a BREEAM-NOR or BREEAM In-use rating of "Excellent" or better.

5.1.2 Criterion ii: Buildings built before 2021

All commercial and public buildings completed before 2021 with EPC labels A or B, or which comply with the Norwegian building code of 2010 (TEK10) and later codes, are eligible. These buildings have significantly better energy standards and account for less than 15 percent of the building stock built before 2021.

Figure 5-1 illustrates the cumulative percentages of building code and EPC label combinations for the total commercial building stock built before 2021 in Norway. The cumulative percentage calculation precludes double counting – each building is only counted once in the analysis. A time lag between building code implementation and buildings completion is taken into account. Multiconsult assumes a two-year lag as a robust and conservative estimate.

Buildings with EPC A represent 2.2 percent of the total commercial building stock built before 2021; Buildings with EPC A and EPC B represent 10.6 percent; Buildings with EPC labels A and B in combination with TEK17 represent 11.1 percent. Buildings with EPC labels A and B in combination with TEK10 and later codes represent 14.6 percent; EPC labels A, B and C represent 27.4 percent, and so forth. The data thus demonstrate that all commercial buildings built before 2021 with EPC labels A or B, or which comply with TEK10 or later codes, account for less than 15 percent of the total commercial building stock built before 2021. The same conclusion is also valid for public buildings as commercial buildings in general are more energy efficient than public buildings.

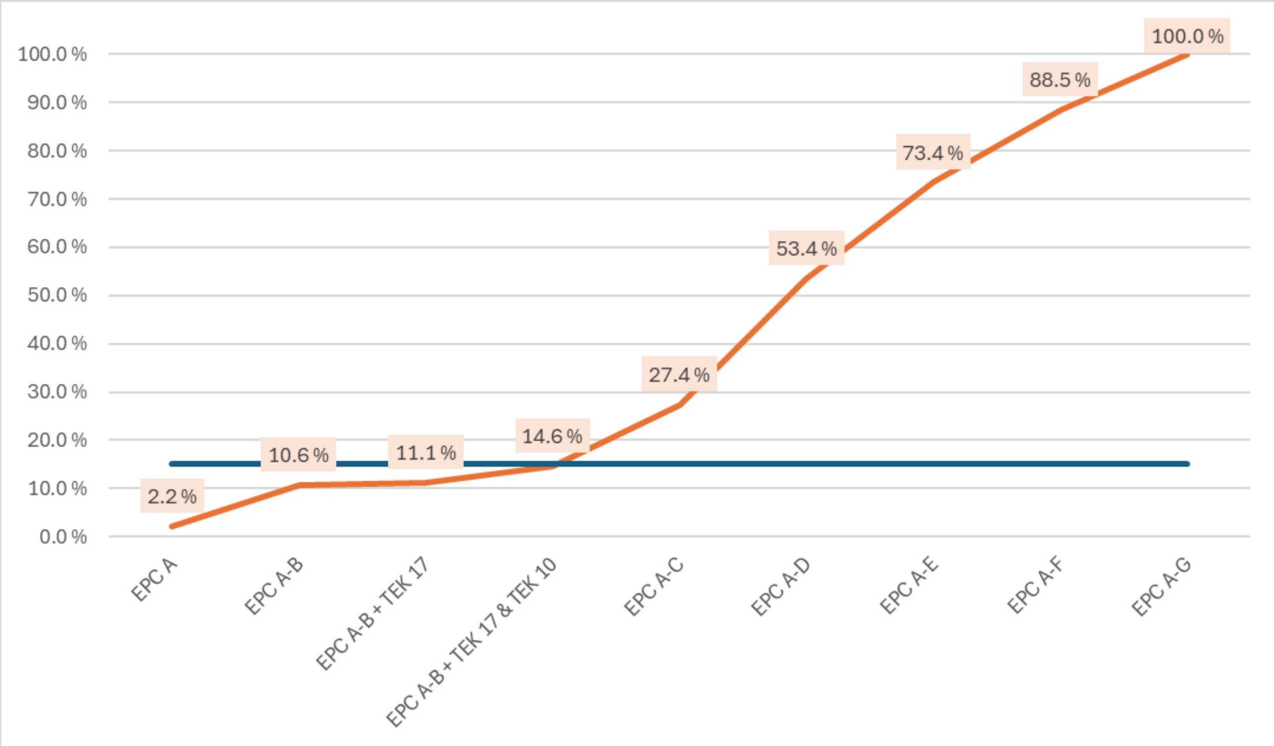

Figure 5-1 Cumulative percentages for criteria combinations, relative to the total commercial building stock built before 2021 in Norway [17]

All commercial and public buildings completed before 2021 are also eligible if they have achieved a BREEAM-NOR or BREEAM In-use rating of "Excellent" or better.

5.1.3 Criterion iii: Renovated commercial and public buildings

Commercial and public buildings are eligible if, following renovation, they comply with the eligibility criteria for buildings built before or after 2021, cf subsection 4.1.1 and 4.1.2. Hence, this criterion is not applied directly. Loans to renovate buildings qualify if the renovations lead to at least a 30 percent reduction in PED or include energy efficiency measures with Enova support. Eligibility for renovations and energy efficiency measures has not been assessed.

5.2 Impact assessment – commercial and public buildings

By combining data on calculated energy demand based on building code requirements with information on the building stock, the average specific energy demand for each building category is estimated as presented in Table 5-1 below. These estimates are used as baselines in the impact calculations.

Table 5-1 Estimated average specific energy demand for the building stock. Source: [18]

Building category	Average total stock (baseline) [kWh/m^2]
Retail buildings	315
Hotel and restaurant buildings	320
Industrial and small warehouse buildings	278
Office buildings	244
Public buildings	315

For 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 unit and the baseline.

For buildings qualifying according to top 15 EPC A and B, the reduction is calculated based on the difference between the energy demand for the achieved energy label and the baseline.

For buildings qualifying according to top 15 on TEK10 or newer, the reduction is calculated based on the difference between the energy demand for the building code and the baseline.

Table 5-3 shows that the eligible commercial and public buildings in Sparebanken Møre's portfolio are estimated to amount to nearly 249,000 square meters. The available data includes reliable areas for most objects. For objects where this data is not available, the area per dwelling is calculated based on the average area derived from national statistics [19]. Objects with missing loan balances or market values, or with building types outside the scope, are excluded from the analysis.

Eligibility is first checked against the NZEB-10 percent criterion for buildings built in 2021 or later. Buildings from 2020 and older are checked against the top 15 percent criterion. An object is only qualified based on the first criterion it fulfils, hence, no double counting of objects will occur.

As presented in Table 5-2, the majority of the 96 objects are eligible through the top 15 percent criterion. 98 percent are eligible under the top 15 percent criterion and two percent are eligible under the NZEB-10 percent criterion.

Table 5-2 Eligible commercial and public objects in Sparebanken Møre's portfolio.

	Number of qualifying buildings in portfolio						
	NZEB EPC A	NZEB EPC B	TOP 15 EPC A	TOP 15 EPC B	TOP 15 TEK17	TOP 15 TEK10	Sum qualifying
Retail/commercial buildings	-	2	3	5	3	18	31
Hotel and restaurant buildings	-	-	-	2	2	2	6
Industrial and small warehouse buildings	-	-	3	5	10	23	41
Office buildings	-	-	-	-	1	5	6
Public buildings	-	-	2	1	2	7	12
Sum	**-**	**2**	**8**	**13**	**18**	**55**	**96**

Table 5-3 Calculated area of qualifying commercial and public buildings (unscaled).

	Calculated area of qualifying buildings in portfolio [m^2]						
	NZEB EPC A	NZEB EPC B	TOP 15 EPC A	TOP 15 EPC B	TOP 15 TEK17	TOP 15 TEK10	Sum qualifying
Retail/commercial buildings	-	5,500	24,931	39,788	8,266	52,038	130,522
Hotel and restaurant buildings	-	-	-	5,010	5,446	2,244	12,700
Industry and small warehouse buildings	-	-	19,625	8,987	11,739	40,438	80,789
Office buildings	-	-	-	-	592	12,231	12,823
Public buildings	-	-	842	1,078	2,179	7,858	11,956
Sum	-	**5,500**	**45,397**	**54,863**	**28,222**	**114,808**	**248,790**

Based on the calculated figures in Table 5-2 and Table 5-3, the energy efficiency of this part of the portfolio is estimated as described earlier in this subsection. Emission factors considering other heating sources in Table 2-1 are then applied to calculate the impact on GHG emissions.

Table 5-4 indicates how much more energy efficient the eligible part of the portfolio is compared to the average Norwegian commercial and public building stock. The table also presents how much the calculated reduction in energy demand constitutes in CO_2 emissions. The calculations are also scaled by Sparebanken Møre's share of financing (loan-to-value).

Table 5-4 Avoided energy demand and emissions (CO_2-eq) of eligible commercial and public buildings in the portfolio compared to average building stock using four emission factors.

	Avoided energy demand compared to baseline [GWh/year]	Avoided CO_2 emissions compared to baseline [tonnes CO_2-eq/year]			
		European (EU27 + UK + Norway) NS 3720:2018 electricity mix	Norwegian NS 3720:2018 electricity mix	Norwegian NVE physically delivered electricity 2024	Norwegian NVE residual mix 2024
Eligible buildings in the portfolio	34	**3,900**	600	450	15,000
Eligible buildings in the portfolio - scaled by bank's engagement	25	**2,800**	450	300	10,900

6 Renewable energy

Hydropower has played a significant role in Norway's power production since the Industrial Revolution. Hydropower remains a crucial component of the national energy mix, producing 140 TWh annually and accounting for 89 percent of the national electricity production [20]. Onshore wind and solar power account for 10 percent (15 TWh/year) of the national power production. The Norwegian Government has set a target to increase the electricity production from solar energy to 8 TWh by 2030.

Power production development in Norway is strictly regulated and subject to licensing and is overseen by NVE, a directorate under the Ministry of Energy. Licenses grant rights to build and run power production installations under explicit conditions and rules of operation. NVE emphasises preserving the environment. The Norwegian part of the NVE homepage gives detailed information about different requirements for different kinds of projects [21].

Data about the Norwegian assets (power plants) is available from the NVE, as all assets are subject to licensing.

6.1 Eligibility

The green loan portfolio of Sparebanken Møre assessed in this report contains Norwegian renewable energy power plants generating electricity from hydropower and wind power.

The EU Taxonomy's "Do no significant harm" (DNSH) criteria for hydropower and wind power address environmental, social and governance (ESG) issues. The adaptation and resilience component in the Climate Bonds Initiative (CBI) eligibility criteria and the DNSH criteria is, in the Norwegian context, to a large degree covered by the relevant requirements in the Norwegian regulation of energy plants. All Norwegian hydropower and wind assets conform to very high standards regarding environmental and social impact. Portfolio alignment with DNSH requirements has not been assessed in detail.

6.1.1 Hydropower

According to Sparebanken Møre's Green Bond Framework, hydropower plants qualify for green bonds if they meet one of the following criteria:

i. life cycle emissions of less than 100 gCO_2-eq/kWh,

ii. power density greater than 5 W/m^2, or

iii. the electricity generation facility is a run-of-river plant and does not have an artificial reservoir

The eligibility criteria are formulated in line with the CBI criteria [22], and the emissions threshold is in line with the threshold of 100 gCO_2-eq/kWh in the June 2021 EU Taxonomy Annex I to the Commission Delegated Regulation [23].

Hydropower plants with power density over 5 W/m^2 (ratio between capacity and impounded area) are exempt from the most detailed investigations. For Norwegian hydropower assets, the above criteria are fulfilled, and most assets overperform radically. All run-of-river power stations have no or negligible negative impact on GHG emissions. Due to the cold climate, Norwegian reservoirs are not exposed to cyclic revegetation of impoundment, and hence the negative impacts on GHG emissions from these reservoirs are minuscule. Hydropower stations with high hydraulic head or relatively small, impounded areas have high power density.

The eligibility criteria mentioned above are central to the EU Taxonomy. Most DNSH requirements are covered by the current national regulation of hydropower, however, with exemptions.

6.1.2 Wind power

According to Sparebanken Møre's Green Bond Framework, wind power plants qualify for green bonds if they are onshore or offshore wind energy generation facilities.

According to the CBI wind eligibility criteria [24], onshore wind energy generation facilities are automatically eligible.

6.2 Eligible assets in the portfolio

Sparebanken Møre's renewable energy portfolio contains 70 smaller (0-10 MW) and mid-sized (10-50 MW) hydropower plants in operation with installed capacities ranging from 0.2 to 26.5 MW. These are run-of-river plants or small reservoir hydropower plants, which hence have a higher power density of several thousand W/m^2. The portfolio also contains a recently commissioned smaller onshore wind power plant.

Figure 6-1 shows the age distribution for the hydropower plants in Sparebanken Møre's green portfolio. The hydropower plants were commissioned between 1998 and 2025 with a median year of 2016, indicating a relatively modern portfolio.

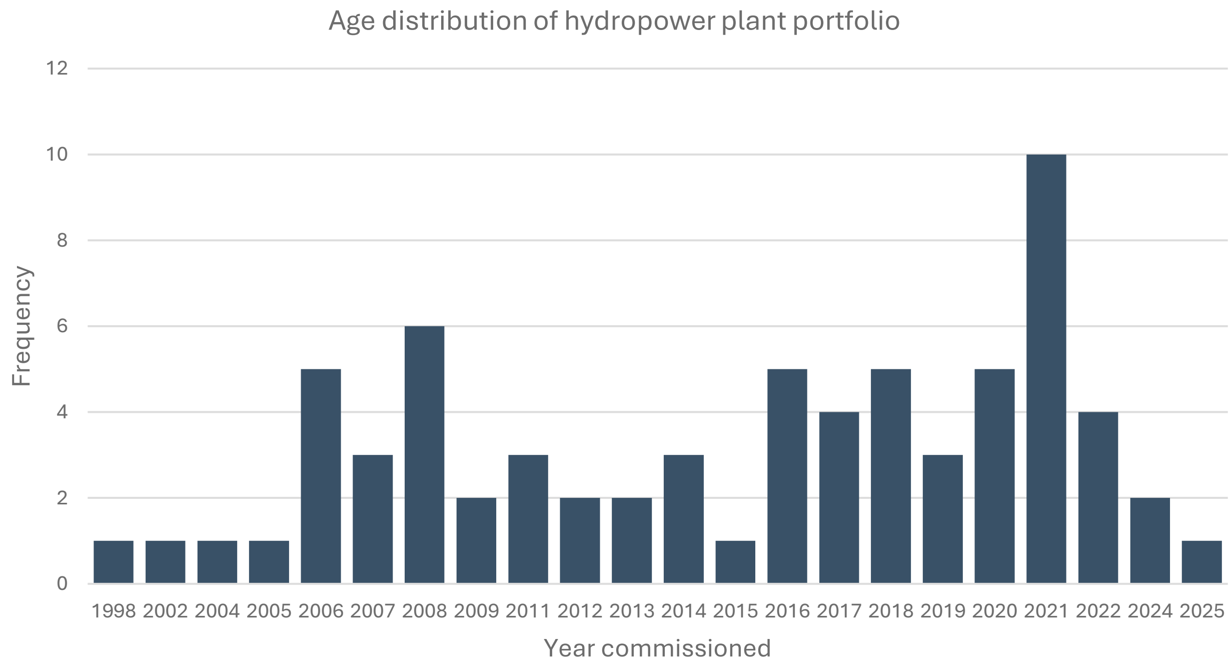

Figure 6-1 Age distribution for hydropower plants in Sparebanken Møre's renewable energy portfolio.

Multiconsult can verify that Sparebanken Møre's eligible assets have low to negligible GHG emissions related to construction and operation.

6.3 Emission factors and production estimates

6.3.1 CO_2 emissions from renewable energy power production

All power production facilities have a negative impact on GHG emissions. Instead of calculating the individual impact on GHG emissions for the facilities in the portfolio, we refer to AIB [9]. AIB, as referred to by NVE [25], has used an emission factor of 6 gCO_2/kWh for all European hydropower in their calculations of the European residual mix. The value is based on a life-cycle analysis where all upstream and downstream effects in the whole value chain for power production are included.

In subsequent assessments, we are using the AIB emission factors for all renewable assets, even though the factors are reported higher than in other credible sources in Norwegian context. For instance, Østfoldforskning [26] calculated the life-cycle emissions of Norwegian hydropower across all categories to 3.33 gCO_2-eq/kWh.

Sparebanken Møre's portfolio contains many run-of-river and small hydropower assets, and the AIB emission factor for hydropower is regarded as conservative in an impact assessment setting. Given an average emission factor for all European hydropower of 6 gCO_2-eq/kWh, the positive impact of hydropower is 130 gCO_2-eq/kWh compared to the European electricity mix baseline of 136 gCO_2-eq/kWh from Table 2-1.

The equivalent LCA based emission factor for European wind power is set by AIB at 20 gCO_2e/kWh. The positive impact of wind power is then 116 gCO_2e/kWh compared to the European electricity mix baseline of 136 gCO_2e/kWh.

The positive impact of hydropower and wind power compared to the other three (Norwegian) baselines in Table 2-1 is calculated in a similar manner as described above and applied when calculating the impact in subsection 6.4.

6.3.2 Power production estimates

Production and installed capacity have been attained by using NVE's hydropower and wind power databases [27, 28]. It is important to note that the indicated power production capacity in the licensing documents does not necessarily represent what can realistically be expected from the plant over time. For hydropower, the hydrology is uncertain, and unfortunately, often overestimated in early project phases. Also, production figures normally do not account for planned and unplanned production stops due to accidents, maintenance, etc. Research on small hydropower facilities has shown that actual production (expected production) is often more than 20 percent lower than the licensing/pre-construction figures (estimated production). There is no equivalent evidence to claim the same mismatch for large hydropower facilities.

6.4 Impact assessment – renewable energy

The eligible hydropower and wind power plants in Sparebanken Møre's portfolio have an installed capacity of 317 MW and an expected annual production of 736 GWh, cf Table 6-1 below.

Table 6-1 Capacity and annual production of identified eligible plants.

	No. of plants	Capacity [MW]	Estimated production [GWh/year]	Expected production [GWh/year]
Hydropower and wind power	71	317	877	736

The expected renewable energy produced by the eligible assets in the portfolio in an average year and the resulting avoided CO_2 emissions from the energy production are summarized in Table 6-2. Avoided emissions are presented based on all four emission factors from Table 2-1, cf subsection 6.3.1. The calculations are also scaled by Sparebanken Møre's engagement (loan-to-value).

For small hydropower plants, the expected impact is conservatively calculated by reducing the estimated production by 20 percent, cf subsection 6.3.2.

Table 6-2 Expected annual power production and positive impact on GHG emissions.

	Expected production [GWh/year]	Avoided CO_2 emissions compared to baseline [tonnes CO_2-eq/year]			
		European (EU27 + UK + Norway) NS 3720:2018 electricity mix	Norwegian NS 3720:2018 electricity mix	Norwegian NVE physically delivered electricity 2024	Norwegian NVE residual mix 2024
Verified eligible plants in portfolio	736	**95,500**	8,700	4,300	389,000
Verified eligible plants in portfolio – scaled by bank's engagement	315	**40,800**	3,600	1,800	166,600

7 References

[1] Sparebanken Møre, "Green Bond Framework," [Online]. Available: https://www.sbm.no/samfunnsansvar/green-bond-framework/.

[2] Statistics Norway, "Elektrisitet - Statistikkbanken kildetabell 14091," 19 01 2026. [Online]. Available: https://www.ssb.no/energi-og-industri/energi/statistikk/elektrisitet. [Accessed 10 10 2025].

[3] Statistics Norway (SSB), "Table 08307: Production, imports, exports and consumption of electric energy (GWh), by contents and year," [Online]. Available: https://www.ssb.no/en/statbank/table/08307.

[4] Norsk Fjernvarme, "Fjernvarme - Energikilder 2024," 2025. [Online]. Available: https://www.fjernkontrollen.no/.

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

[6] 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/.

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

[8] 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.

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

[10] Multiconsult, "Based on building code assignments for DiBK, 2015," 2015. [Online].

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

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

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

[14] Norwegian Ministry of Energy, "Taksonomien: Terskelverdier for energieffektivitet i bygninger," 6 6 2025. [Online]. Available: https://www.regjeringen.no/no/aktuelt/taksonomien-terskelverdier-for-energieffektivitet-i-bygninger/id3108066/.

[15] Regjeringen/Kommunal- og distriktsdepartementet, "Taksonomien – maler for rapportering og retting av veiledning om primærenergifaktorer," 2023. [Online]. Available: https://www.regjeringen.no/no/aktuelt/rettleiing-om-utrekning-av-primarenergibehov-i-bygningar-og-energirammer-for-nesten-nullenergibygningar/id2961158/.

[16] Regjeringen/Finansdepartementet, "Taksonomien – maler for rapportering og retting av veiledning om primærenergifaktorer," 2024. [Online]. Available: https://www.regjeringen.no/no/aktuelt/taksonomien-maler-for-rapportering-og-retting-av-veiledning-om-primarenergifaktorer/id3021759/.

[17] Multiconsult, "Cumulative percentages for criteria combinations, relative to the total building stock built before 2021 in Norway," Datasources: Statistics Norway (SSB) and ENOVA, 2025.

[18] Multiconsult, "Estimated average specific energy demand for the building stock," Source: SSB, historic building codes, Multiconsult.

[19] Statistics Norway (SSB), "Table 06513: Dwellings, by region, contents, year and utility floor space," [Online]. Available: https://www.ssb.no/en/statbank/table/06513.

[20] Statistics Norway (SSB), "Table 08307: Production, imports, exports and consumption of electric energy (GWh), by contents and year," 2024. [Online]. Available: https://www.ssb.no/en/statbank/table/08307.

[21] Norwegian Water Resources and Energy Directorate (NVE), "Konsesjonsbehandling av vannkraft," [Online]. Available: https://www.nve.no/konsesjon/konsesjonsbehandling-av-vannkraft/.

[22] Climate Bonds Initiative (CBI), "Hydropower," [Online]. Available: https://www.climatebonds.net/our-expertise/climate-bonds-standard-and-certification-scheme/sector-criteria/hydropower.

[23] European Commission, "EU Taxonomy Annex I to the Commission Delegated Regulation," [Online]. Available: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-2800-annex-1_en.pdf.

[24] Climate Bonds Initiative (CBI), "Wind," [Online]. Available: https://www.climatebonds.net/our-expertise/climate-bonds-standard-and-certification-scheme/sector-criteria/waste-infrastructure-2. [Accessed 2026].

[25] Norwegian Water Resources and Energy Directorate (NVE), "Electricity disclosure 2018," 2019. [Online]. Available: https://www.nve.no/norwegian-energy-regulatory-authority/retail-market/electricity-disclosure-2018.

[26] Østfoldforskning, "The inventory and life cycle data for Norwegian hydroelectricity," 2020. [Online]. Available: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://norsus.no/wp-content/uploads/AR-01.19-The-inventory-and-life-cycle-data-for-Norwegian-hydroelectricity.pdf.

[27] Norwegian Water Resources and Energy Directorate (NVE), "Oversikt over vannkraft i Norge," [Online]. Available: https://www.nve.no/energi/energisystem/vannkraft/oversikt-over-vannkraft-i-norge/. [Accessed 2026].

[28] Norwegian Water Resources and Energy Directorate (NVE), "Data for utbygde vindkraftverk i Norge," [Online]. Available: https://www.nve.no/energi/energisystem/vindkraft-paa-land/data-for-utbygde-vindkraftverk-i-norge/. [Accessed 2026].