The Bank of Åland

Green Bond Impact Report

2024

Best archipelago wishes

ÅLANDSBANKEN

Contents

1. Executive Summary

The Bank of Åland's inaugural Green Finance Framework was published in September 2021. Almost immediately after, in December, the Bank issued its first green Tier 2 (supplementary capital) instrument amounting to SEK 150 million. In August 2024, the Green Finance Framework was updated to more broadly comply with the Substantial Contribution criteria of the EU Taxonomy Climate Delegated Act.[1] A new green asset category, Clean Transportation, was added to the existing green asset categories Renewable Energy and Green Buildings. As before, the framework has been established in accordance with the ICMA Green Bond Principles (GBP).[2]

The updated Green Finance framework has undergone an independent external review by Moody's Investors Service, which has assessed that the framework is aligned with the four core components of the ICMA Green Bond Principles and contributes significantly to sustainability. The framework has received the second-best rating SQS2, "Very Good".

The updated Green Finance Framework will be applied to new green issuances. The Green Finance framework dated 2021 will continue to apply to the currently outstanding green Tier 2 instrument.

1.1 UN Sustainable Development Goals

The Sustainable Development Goals are the blueprint for achieving a better and more sustainable future for all. Today, the UN Global Sustainable Development Goals are an established source of guidance for the Bank of Åland's sustainability work. By issuing green debt, the Bank of Åland is able to further promote the long-term development of sustainability in line with the UN SDGs. The proceeds of the Bank of Åland's Green bonds issued under the Green Finance Framework dated 2024 contribute to SDGs 7 "Affordable and Clean Energy", 9 "Industry, Innovation and Infrastructure", 11 "Sustainable Cities and Communities" and 13 "Climate Action".

1.2 Environmental Impact of the Bank of Åland's Green Bond

Allocation and environmental impact are reported for the outstanding green Tier 2 instrument issued under the Green Finance Framework dated 2021.

The Bank of Åland's green bond proceeds are allocated to two types of projects specified in the Bank's Green Finance Framework: Renewable Energy and Green Buildings. On 31 December 2024, 8.5 per cent of the total proceeds was allocated to renewable energy projects. All proceeds within this category were distributed to wind power projects. On 31 December 2024, 91.5 per cent of the proceeds was distributed to the green building category.

The total annual emissions avoided denotes the quantity of CO_2e emissions avoided due to green investments compared to a baseline scenario.

Annual energy production only applies to the renewable energy sector and refers to the energy produced by renewable energy projects throughout the year. In 2024, the annual energy production of wind power projects financed by the Bank of Åland was 4,538 MWh.

Annual energy savings only apply to green buildings and refer to the amount of energy saved in terms of energy use per square metre per year, as compared to a baseline scenario. In 2024, the annual energy savings amounted to 62 MWh.

The weighted impact of tonnes of CO_2e per EUR M was 63.4.

[1] Commission Delegated Regulation (EU) 2021/2139

[2] ICMA (2021)

Allocation	Total	Renewable Energy	Green Buildings
Allocated proceeds, MEUR*	13.1	1.1	12.0
Distribution within the green asset register, %	100.0 %	8.5 %	91.5 %
Weighted lookback, years	3.79	4.17	3.76
Weighted maturity, years	10.69	3.26	11.38
Geographical distribution, %			
Sweden	37.8 %		37.8 %
Finland	62.2 %	8.5 %	53.7 %
Share of new financing/refinancing, %	14 % / 86 %	0 % / 100 %	15 % / 85 %
Enviromental Impact			
Annual emissions avoided, tCO_2e	830.5	821.5	9.1
Annual energy production, MWh		4,537.9	
Annual energy savings, MWh			62.3
Impact tonnes CO_2e per MEUR	63.4	737.5	0.8

* EURSEK ECB fixing rate on December 31, 2024

1.3 Total Liabilities

The Bank of Åland has one outstanding green bond in the form of a Green SEK Tier 2 instrument amounting to SEK 150 M. The corresponding value in EUR is 13.1 M. Full details of the green bond are presented in the Appendix.

Green Bonds, outstanding volume	SEK M	Corresponding value, EUR M*
SE0016274294	150	13.1

* EURSEK ECB fixing rate on December 31, 2024

2. Green Asset Register Details

2.1 Green Buildings

Buildings have a significant impact on energy use. In Finland, building energy use accounts for about 40 per cent of the end use of energy and causes about 30 per cent of greenhouse gas emissions.[3] In Sweden, building energy use accounts for about 40 per cent of heating and electricity consumption. From a life cycle perspective, buildings account for about one-fifth of Sweden's greenhouse gas emissions.[4] Building emissions are expected to fall in the coming years as housing stock is renewed and the energy efficiency of the existing building stock improves. In Finland and Sweden, government grants are available to support this transition by improving the energy efficiency of residential buildings and single-family houses.[5]

Mortgage loans are the single most significant loan type for the Bank of Åland. Therefore, they offer a good opportunity to make an impact. We will promote a shift towards green housing loans and actively seek ways to encourage our customers to choose environmentally friendly and sustainable alternatives when making real estate investments.

The green buildings included in the Green Asset Register are located in Finland and Sweden. The green buildings in Finland are mainly residential buildings, while the green buildings in Sweden are residential buildings and one- or two-dwelling houses owned by tenant-owners' associations. The buildings in the Green Asset Register have lower energy consumption than required by national building requirements.

[3] Suomen Luonnonsuojeluliitto (2023)

[4] Naturvårdsverket (2023)

[5] Boverket (2024) & Ympäristöministeriö (2022)

2.2 Renewable Energy

Finland and Sweden have emerged as leaders in the European Union's renewable energy transition, with Sweden ranking first in 2023, with two-thirds (66.4%) of its gross final energy consumption coming from renewable sources. In the same year, the corresponding figure for Finland was 50.8%. In both Finland and Sweden, the most common sources of renewable energy are solid biofuels, wind and hydro.[6] The share of renewable energy has grown steadily over the past decade, but continued investments in renewable energy projects are necessary to reach targets for carbon neutrality and to meet climate obligations set by the EU.

Renewable energy projects in the Green Asset Register include wind power projects in Finland, specifically in the Åland Islands. On December 31, 2024, the Green Asset Register did not include any solar power projects.

3. Reporting Principles

This Impact Report is based on the guidelines for impact reporting provided by the Green Bond Principles (GBP)[7] and the Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting 2024.[8]

The Bank of Åland reports on a portfolio basis, and all financial values are disclosed in euro (EUR). The exchange rates on December 31, 2024, were applied. The environmental impact is reported separately for each asset category and is based on one financial year. The reported impact is based on the Bank of Åland's share of financing for each green asset.

The reported distribution and impact are based on the status of the Green Asset Register on December 31, 2024. The full-year impact is calculated regardless of when an asset was added to the Green Asset Register, which is reviewed quarterly. New green loans are allocated to the register to compensate for amortisation and the repayment of old loans.

New financing is defined as Eligible Green Assets that are planned, ongoing or have been finalised up to one year before approval by the Credit Committee of the Executive Team. If the Eligible Green Assets were finalised and taken into operation more than one year before approval by the Credit Committee of the Executive Team, they are defined as refinancing.

All the reported green assets are located in Finland or Sweden. The green building category includes residential buildings and buildings owned by tenant-owner associations.

For heating, we used local emission factors.

For electricity projects, we used a baseline emission factor of 191 gCO_2/kWh, as suggested by the Nordic Public Sector Issuers (2024). There is no local or national mix for electricity in the Nordic countries, since electricity is widely traded cross-border with neighboring countries. The baseline emission factor is constructed using a combined margin comprising an existing operating margin (33 per cent) and a build margin (67 per cent) from potential new generation capacity. The Combined Margin grid factor corresponds to the geographic area of Mainland EU (EU 27 excluding Cyprus), the UK and Norway.

Taxonomy alignment of green assets has not been assessed, as Do No Significant Harm given in the Technical Screening criteria and Minimum safeguards cannot be confirmed. However, an assessment of whether assets meet the substantial contribution requirements has been conducted, and the results are presented in the Appendix. Please note that substantial contribution criteria have been introduced in the updated framework from 2024 and is not a requirement in the initial framework from 2021.

[6] Eurostat (2024)

[7] ICMA (2024)

[8] Kuntarahoitus (2024)

4. Methodology

4.1 Wind

The annual energy generation by each asset is estimated by multiplying its maximum capacity with a capacity factor. The capacity factor for wind turbines indicates the electricity production of the wind turbine in relation to its theoretical maximum. The capacity factor of 32% is used in our calculations and is the average capacity factor in Finland for the last five years. Capacity factors have been calculated by dividing the amount of energy produced by wind power during the year by the amount of energy that would have been produced by wind power if it had produced electricity at full capacity all year round.

Data necessary to calculate the capacity factor was retrieved from Fingrid.[9]

Emission factors

- Wind power: 10 gCO_2/kWh. Vattenfall 2024.[10]
- Electricity: 191 gCO_2/kWh. Reference baseline emission factor. Nordic Public Sector Issuers 2024.[11]

Calculation formula

Emissions avoided, gCO_2/kWh = (Annual electricity generated, kWh * Baseline emission factor, gCO_2/kWh) – (Annual electricity generated, kWh * Wind power emission factor, gCO_2/kWh) * the Bank of Åland share of financing

4.2 Green Buildings

Energy certificates for green buildings are available from The Housing Finance and Development Centre of Finland (ARA)[12] in Finland and the Swedish National Board of Housing Building and Planning (Boverket)[13] in Sweden.

Energy savings from green buildings are disclosed as a net value based on energy performance per square metre per year and compared to a baseline scenario in which buildings comply with relevant national regulations.

Avoided emissions were estimated for each object based on average emissions per kWh per building category.

4.2.1 Green Buildings, Sweden

Emission factors

- District heating: 84 gCO_2/kWh. Nordic Public Sector Issuers 2024.
- Electricity: 191 gCO_2/kWh. Reference baseline emission factor. Nordic Public Sector Issuers 2024.[14]
- Oil: 267 gCO_2/kWh. Naturvårdsverket 2024.[15]
- Natural gas: 206 gCO_2/kWh. Naturvårdsverket 2024.
- Biomass: 230 gCO_2/kWh. Naturskyddsföreningen 2021.[16]

4.2.2 Green Buildings, Finland

Emission factors

- District heating: 145 gCO_2/kWh. National emission factor for district heating in Finland, three-year average. Motiva 2024.[17]
- Electricity: 191 gCO_2/kWh. Reference baseline emission factor. Nordic Public Sector Issuers 2024.[18]
- Wood: 403 gCO_2/kWh. Tilastokeskus 2024.[19]
- Peat: 378 gCO_2/kWh. Tilastokeskus 2024.
- Heavy fuel oil: 281 gCO_2/kWh. Tilastokeskus 2024.
- Light fuel oil: 263 gCO_2/kWh. Tilastokeskus 2024.
- Natural gas: 200 gCO_2/kWh. Tilastokeskus 2024.
- Heat pumps: 85 gCO_2/kWh. Tilastokeskus 2024.

Calculation formula

Emissions avoided, gCO_2/kWh = (Baseline for energy consumption, kWh/m2 – actual energy consumption, kWh/m2) * Object size, m2 * average emissions per building category, gCO_2/kWh * The Bank of Åland share of financing.

[9] Fingrid (2024)
[10] Vattenfall (2024)
[11] Kuntarahoitus (2024)
[12] Energiatodistusrekisteri (2024)
[13] Boverket (2024)
[14] Kuntarahoitus (2024)
[15] Naturvårdsverket (2023)
[16] Naturskyddsföreningen (2021)
[17] Motiva (2024)
[18] Kuntarahoitus (2024)
[19] Tilastokeskus (2024)

5. The Green Finance Framework 2021

The inaugural Green Finance Framework published in 2021 is presented in the table below. This Framework was reviewed by Cicero and received a Medium Green rating. The criteria set out in the Green Finance Framework ensure that the net proceeds are used to finance or refinance Green Assets that support the transition to a greener, low-carbon economy. This Framework is only applicable to the current outstanding green Tier 2 instrument. For new issuances, the newly updated framework is applied.

Green Bond Principle category	Project types	SDGs
Renewable Energy	"Renewable energy", is defined as renewable energy from the following sources: • Wind Energy • Solar Energy	

Green Buildings	"Green Buildings" are defined as commercial or residential buildings that meet one of the following standards:
	• Finnish buildings built before 1 January 2018 and Swedish buildings built before 1 January 2021 with an Energy Performance Certificate (EPC)
	  • issued by the Housing Finance and Development Centre of Finland (ARA)[20] of at least level A or B
	  • issued by the Swedish National Board of Housing, Building and Planning (Boverket)[21] of at least level A, B or C
	• Finnish buildings built from 1 January 2018 onwards and Swedish buildings built from 1 January 2021 onwards with an Energy Performance Certificate (EPC)
	  • issued by the Housing Finance and Development Centre of Finland (ARA) of at least level A
	  • issued by the Swedish National Board of Housing, Building and Planning (Boverket) of at least level A or B
		

[20] Ara (2024)

[21] Boverket (2024)

6. The Green Finance Framework 2024

In August 2024, The Bank of Åland updated its Green Finance Framework. This updated framework has been developed to more broadly comply with the Substantial Contribution criteria of the EU Taxonomy Climate Delegated Act published in December 2021. The Framework has undergone an independent external review by Moody's Investors Service, which has assessed that the framework is consistent with ICMA's Green Bond Standards and contributes significantly to sustainability. The Framework received the second-best rating SQS2, "Very Good". As of December 31, 2024, there were no outstanding issuances under this updated framework.

GBP Category	Eligibility Criteria	UN SDGs	EU Enviromental Objective	EU Economic Activity
Renewable Energy	Renewable energy projects, including development, manufacturing, construction, operation, and maintenance of renewable energy from the following sources: • Wind Energy • Solar Energy		**Climate Change Mitigation**	3.1 Manufacture of renewable energy technologies 4.1 Electricity generation using solar photovoltaic technology 4.3 Electricity generation from wind power
Green Buildings	Residential buildings, including buildings owned by tenant-owner associations, which meet one of the following criteria: **Certifications** Buildings with the following certification: • The Nordic Swan Ecolabel certification[22] **New Buildings**[23] Construction of new buildings with an energy performance classification that is at least 10 per cent lower than the primary energy demand resulting from the current national building regulation in accordance with nearly zero-energy building (NZEB) requirements.[24] The energy performance is certified using an Energy Performance Certificate (EPC). **Existing Buildings** Ownership or acquisition of buildings, that meet one of the criteria: • Buildings built before 31 December 2020, where the building has at least an Energy Performance Certificate (EPC) class A or where the building is within the top of 15 per cent of the national or regional building stock. [25]		**Climate Change Mitigation**	7.1 Construction of new buildings 7.2 Renovation of existing buildings 7.7 Acquisition and ownership of buildings

[22] A Nordic Swan label is sufficient for new buildings built after 31 December 2020 to be considered eligible. Existing buildings built before 31 December 2020 with a Nordic Swan label must also either fall within the top 15 per cent or have an EPC rating of A.

[23] Large buildings (>5000 m2) are excluded.

[24] NZEB means nearly zero-energy building, a building that has a very high energy performance regulated in the Energy Performance of Buildings Directive (EPBD). Thus, Member States have the responsibility of defining their national building code in line with NZEB. In Finland, NZEB requirements for energy performance are in accordance with energy class B. In Sweden, NZEB requirements for energy performance are in accordance with energy class C.

[25] Calculation methodology as per the EU Climate Taxonomy Delegated Act i.e. the building should be "within the top 15 per cent of the national or regional building stock expressed as operational Primary Energy Demand (PED) and demonstrated by adequate evidence, which at least compares the performance of the relevant asset with the performance of the national or regional building stock built before 31 December 2020 and at least distinguishes between residential and non-residential buildings".

GBP Category	Eligibility Criteria	UN SDGs	EU Enviromental Objective	EU Economic Activity
	• Renovations and refurbishment of existing buildings resulting in an annual reduction in primary energy demand on a square metre basis of at least 30 per cent compared to the pre-renovation levels. • Buildings built after 31 December 2020 must meet the criteria specified under "New buildings" above.			
Clean transportation	Fully electric and other low-carbon (e.g. hydrogen, plug-in hybrid) vehicles that meet the following criteria: • Passenger cars and commercial vehicles with zero tailpipe emissions • Low-carbon vehicles for passenger cars and commercial vehicles with tailpipe emission intensity lower than 50g CO_2/km (WLTP) until December 31, 2025.		**Climate Change Mitigation**	6.5 Transport by motorbikes, passenger cars and light commercial vehicles

7. The Green Asset Selection Process

Careful evaluation and selection of Green Assets is vital to ensure that only projects and assets that meet the criteria set out in the Framework will be considered as Eligible Green Assets. This chapter explains how the Bank of Åland will evaluate, select, approve and register Eligible Green Assets.

1 **Credit Process** Evaluation and selection are integrated into the regular credit process. Normal procedures apply, such as KYC processes, credit risk and sustainability analysis, followed by a credit decision by an authorised individual, the country-specific Credit Committee or the Credit Committee of the Executive Team, depending on the amount of credit.

2 **Selection, Analysis and Evaluation** Group Treasury identifies potential green assets among the financing originated by each of the relevant business units. If a potential Green Asset fulfils the criteria set out in the Green Finance Framework, Group Treasury will verify its eligibility from relevant sources. When eligibility is confirmed, Group Treasury will gather the supporting documentation for the approval process.

3 **Approval and Registration** The potential Green Asset is submitted, along with all relevant documentation, to the Credit Committee of the Executive Team for final approval. The Credit Committee will evaluate the asset according to the criteria set out in the Green Finance Framework. Following approval by the Credit Committee of the Executive Team, the Eligible Green Asset is registered in the Bank's Green Asset register, which is monitored by Group Treasury. The register will be continuously used to monitor, match, and report the use of proceeds.

4 **Management of Proceeds** The proceeds are placed in the General Treasury but are tracked in internal systems. It is the responsibility of Group Treasury to monitor the Green Asset Register on a quarterly basis and to ensure that all proceeds from Green Debt issuances are allocated to a corresponding amount of the Eligible Green Assets.

5 **Reporting** As long as there is outstanding Green Debt, the Bank of Åland commits to annually and on a timely basis in case of material changes, publish an impact report on its website.

[26] Worldwide Harmonised Light-Duty Vehicles Test Procedure (WLTP), which measures fuel consumption, CO_2 emissions as well as pollutant emissions.

8. Appendix A

The Bank of Åland has one outstanding green instrument. The details of the outstanding instrument are presented in the table below.

Bond	Ålandsbanken Green SEK 20NC5 Tier 2 FRN
Issuer	Ålandsbanken Abp
Format	Subordinated note, Tier 2, Green bond
Issuer Rating	A3, Stable
Nominal amount	SEK 150 M
Use of Proceeds	The net proceeds will be used to finance or refinance the green assets selected and evaluated by the Bank according to the Green Finance Framework September 2021
Issue date	16.12.2021
First call date	16.12.2026
Maturity date	16.12.2041
Listing	Helsinki Stock Exchange
ISIN	SE0016274294

9. Appendix B

Green assets allocated to the proceeds have been assessed to determine whether they meet the substantial contribution requirements listed in the EU Taxonomy Delegated Acts for Climate Change Mitigation and Climate Change Adaptation. Full Taxonomy alignment could not be assessed due to lack of data required to confirm compliance with Do No Significant Harm and Minimum safeguards requirements.

Please note that substantial contribution criteria have been introduced in the updated framework from 2024 and is not a requirement in the initial framework from 2021.

Green Asset Category	Green Assets, EUR M	SC aligned volume, EUR M	SC aligned, %
Renewable Energy	1.1	1.1	100 %
Green Buildings	12.0	12.0	100 %