The Bank of Åland Green Bond Impact Report

2022

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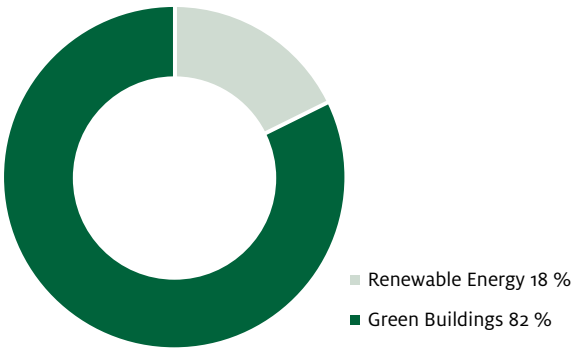
1 Executive Summary

In September 2021, we published our Green Finance Framework, along with a second opinion by Cicero, which issued a Medium Green rating to The Bank of Åland's Green Finance Framework. Our first Green Tier 2 instrument, amounting to SEK 150 M, was issued already in December 2021. The Green Finance Framework is based on the Green Bond Principles (GBP) published by ICMA[1]. The proceeds are used to finance a loan portfolio consisting of both new and existing renewable energy projects and green buildings in line with the Green Finance Framework.

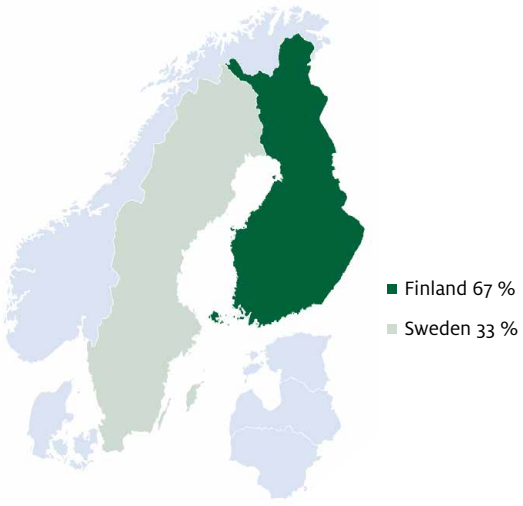
UN's Sustainable Development Goals

The Sustainable Development Goals are the blueprint to 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 bond contribute to SDGs 7 "Affordable and Clean Energy", 11 "Sustainable Cities and Communities" and 13 "Climate Action".

Green Project Portfolio Distribution



Geographical Distribution of Green Assets



[1] International Capital Market Association. The Green Bond Principles (GBP).

Environmental Impact of the Bank of Åland's Green Bond

The proceeds from the Bank of Åland's green bond are allocated to two types of projects specified in the Bank's Green Finance Framework: Renewable Energy and Green Buildings. As per December 31, 2022, 18 per cent of the total proceeds were allocated to renewable energy projects. All proceeds within the renewable energy sector were distributed to wind power projects. As per December 31, 2022, 82 per cent of the proceeds were distributed to the green building category, which consists of both residential and commercial buildings in Finland and Sweden.

The total annual emissions avoided refer to the amount of CO_2e emissions avoided as a result of green investments as compared to a baseline scenario. Total annual emissions avoided amounted to 4 360 tCO_2e as per December 31, 2022, which equals the annual average carbon footprint of 423 Finns[2] or the annual CO_2 emissions from 2 105 passenger cars in Finland[3][4][5].

Annual energy production only applies to the renewable energy sector and refers to the amount of energy produced by the renewable energy projects during the year. In 2022, the annual energy production of the wind power projects financed by the Bank of Åland was 14 250 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 the baseline scenario. In 2022, the annual energy savings amounted to 68 MWh.

The weighted impact of tonnes CO_2e per EUR M was 323.3.

Sector	Sub-sector	Use of Proceeds, EUR M	Annual Emissions Avoided, tCO_2e	Annual Energy Production, MWh	Annual Energy Savings, MWh	Impact tCO_2e per EUR M
Renewable Energy	Wind Power	2.4	4 346	14 250		1809.9
	Solar Power					
Green Buildings		11.2	14		68	1.2
Total		**13.5**	**4360**			
Impact tCO_2e per EUR M						**323.3**

*EURSEK ECB fixing rate as per December 31, 2022

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 euro is 13.5 M. Full details of the green bond are presented in the Appendix.

	Total Bonds Outstanding, SEK M	Corresponding Value in EUR M
Green Bonds, Outstanding Volume	150	13.5

*EURSEK ECB fixing rate as per December 31, 2022

[2] Sitra 2018. Carbon footprint of the average Finn

[3] Traficom 2022. Henkilöautokanta

[4] Statistics Finland. Total performance of road traffic decreased by 0.5 per cent in 2021.

[5] Traficom 2022. Hiilidioksidipäästöt.

2 Green Asset Register Details

Green Buildings

Buildings have a significant impact on energy use. The energy use of buildings in Finland accounts for about 40 per cent of the end use of energy and causes about 30 per cent of greenhouse gas emissions.[6] In Sweden, buildings account for approximately 40 per cent of energy use in terms of heating and electricity. In total, buildings account for about one fifth of Sweden's greenhouse gas emissions from a life cycle perspective.[7] Emissions from buildings are expected to fall in the coming years as the housing stock is renewed and the energy efficiency of the existing building stock improves.

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

The green buildings included in the Green Asset Register are located in Finland and Sweden. The green buildings in Finland are residential buildings, while the green buildings in Sweden are commercial buildings owned by tenant-owners' associations. Most of the buildings included in the Green Asset Register are multifamily buildings. The buildings in the Green Asset Register have a lower energy consumption than required by national building requirements.

Renewable Energy

Finland and Sweden are among the best EU countries when it comes to the production and use of renewable energy.[8] In 2021, the share of renewable energy of total energy consumption in Finland was 42 per cent.[9] In the same year, the corresponding figure for Sweden was 60 per cent.[10] In Finland, the most common sources of renewable energy are wood and bio-fuels.[11] In Sweden, the most important renewable energy sources are wind power, biofuels and hydropower.[12] 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 comply with legislation.[13]

Renewable energy projects in the Green Asset Register include wind power projects in Finland, more specifically in the Åland Islands. The wind power projects include both on-shore and off-shore projects. As per December 31, 2022, the Green Asset Register did not include any solar power projects.

3 Reporting Principles

This Green Finance Impact Report is based on the guidelines for impact reporting provided by the Green Bond Principles (GBP)[14] and the Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting 2020.[15]

The Bank of Åland reports on a portfolio basis, and all financial values are disclosed in euro (EUR). The exchange rates on December 31, 2022 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, 2022. The full-year impact is calculated regardless of when an asset was added to the Green Asset Register.

The Green Asset Register is reviewed quarterly. New green loans are allocated to the register to compensate for amortisation and repayment of old loans

All the reported green assets are located in Finland or Sweden. The green building category includes both commercial- and residential buildings.

For heating, we used local emission factors.

For electricity projects, we used a baseline emission factor of 315 gCO_2/kWh, as suggested by the Nordic Public Sector Issuers (2020). There is no local or national mix for electricity in the Nordic countries because cross-border electricity trading is commonplace. The emission factor is calculated as a combined margin, comprising an operating margin (50 %) and a build margin (50 %). The Combined Margin grid factor corresponds to the geographic area of Mainland EU (EU 27 excluding Malta and Cyprus), the UK and Norway.

6 Motiva, November 2022. Rakentaminen ja rakennukset.

7 Naturvårdsverket. Klimatet och bygg- och fastighetssektorn.

8 Motiva, May 2022. Uusiutuva energia Suomessa.

9 Statistics Finland. Total energy consumption by energy source.

10 SCB, November 2022. Elproduktion och förbrukning i Sverige.

11 Motiva, May 2022. Uusiutuva Energia Suomessa.

12 Energimyndigheten, January 2022. Sverige har överträffat målet om andel förnybar energi för 2020.

13 Nordic Energy Research, June 2021. Renewable energy in the Nordics 2021.

14 International Capital Market Association. The Green Bond Principles (GBP).

15 MuniFin, February 2020. Nordic Public Sector Issuers: Position paper on green bonds impact reporting.

4 Methodology

Wind and Solar

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. In 2019, the capacity factor for Finnish wind turbines was 33 per cent on average .[16]

Emission Factors

- Wind power: 10 gCO_2/kWh. Vattenfall 2022.[17]
- Electricity: 315 gCO_2e/kWh. Reference baseline emission factor. Nordic Public Sector Issuers 2020.[18]

Calculation formula: Emissions avoided, gCO_2e/kWh = (Annual electricity generated, kWh* Baseline emission factor, gCO_2e/kWh) – (Annual electricity generated, kWh* Wind power emission factor, gCO_2/kWh)* the Bank of Åland share of financing

Green Buildings

Energy certificates for green buildings are retrieved from The Housing Finance and Development Centre of Finland (ARA)[19] in Finland and the Swedish National Board of Housing, Building and Planning (Boverket)[20] in Sweden.

Energy savings from green buildings are disclosed as a net value, based on energy performance per m² per year, and compared to a baseline scenario in which buildings comply with the relevant national regulations.

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

Green Buildings, Sweden

Emission Factors

- District heating: 158 gCO_2e/kWh. Nordic Public Sector Issuers 2020.
- Electricity: 315 gCO_2e/kWh. Nordic Public Sector Issuers 2020.[21]

Green Buildings, Finland

Emission Factors

- District heating: 177 gCO_2/kWh. National emission factor for district heating in Finland, three-year average. Motiva 2022.[22]
- Electricity: Electricity: 315 gCO_2e/kWh. Nordic Public Sector Issuers 2020.[23]

Calculation formula: (Baseline for energy consumption, kWh/m²– expected energy consumption, kWh/m²)* Object size, m²* average GHG emissions per building category, gCO_2e/kWh* the Bank of Åland share of financing

16 Finnish Wind Power Association, April 2020. Tuulivoimaloiden rakenne

17 Vattenfall, November 2022. Vindkraft

18 MuniFin, February 2020. Nordic Public Sector Issuers: Position paper on green bonds impact reporting.

19 The Housing Finance and Development Centre of Finland (ARA).

20 The Swedish National Board of Housing, Building and Planning (Boverket).

21 MuniFin, February 2020. Nordic Public Sector Issuers: Position paper on green bonds impact reporting

22 Motiva, March 2022. CO2-päästökertoimet.

23 MuniFin, February 2020. Nordic Public Sector Issuers: Position paper on green bonds impact reporting.

5 The Green Finance Framework

The Green Finance Framework ensures that the net proceeds of Green Debt issued by the Bank of Åland are used to finance or refinance Green Assets that support the transition to a greener, low-carbon economy. The Green Finance Framework has been reviewed by Cicero and received a Medium Green rating.

Green Bond Principle category	Project types
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) of at least level A or B
	  • issued by The Swedish National Board of Housing, Building and Planning (Boverket) 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

6 The Process

The Bank of Åland follows the following procedure when carefully evaluating and selecting Green Assets for the Green Asset Register. The green assets are managed by Group Treasury and the environmental impact of the allocated proceeds is reported annually.

1 **Credit Process** Evaluation and selection are integrated in the regular credit process. Normal procedures apply, such as KYC processes, credit risk and sustainability analyses, followed by a credit decision by either the Credit Committee or an authorised individual.

2 **Selection and Analysis** The initial screening of assets is carried out by the relevant business unit. Group Treasury gathers the documentation in support of giving an asset a green status. If a potential green asset fulfills the criteria set out in the Green Finance Framework, Group Treasury will verify the eligibility of the asset from relevant sources. Group Treasury then submits the potential green asset, along with all relevant documentation, to the Credit Committee for the final approval of the Green Asset.

3 **Evaluation and Approval** The Credit Committee evaluate the assets according to the framework criteria. If an asset meets all the relevant criteria and is approved, it will be registered as an eligible Green Asset in the bank's Green Asset Register.

4 **Management of Proceeds** Group Treasury monitors the Green Asset Register on a quarterly basis to ensure that all proceeds from Green Debt are allocated to a corresponding amount of eligible green assets.

5 **Reporting** As long as there is Green Debt outstanding, the Bank of Åland commits to annually publishing an impact report on its website.

7 Appendix

The Bank of Åland Outstanding Green Bond

Bond	Ålandsbanken Green SEK 20NC5 Tier 2 FRN
Issuer	Ålandsbanken Abp
Format	Subordinated note, Tier 2, Green bond
Issuer Rating	BBB+, 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

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