



Green Bond Report

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Nordea

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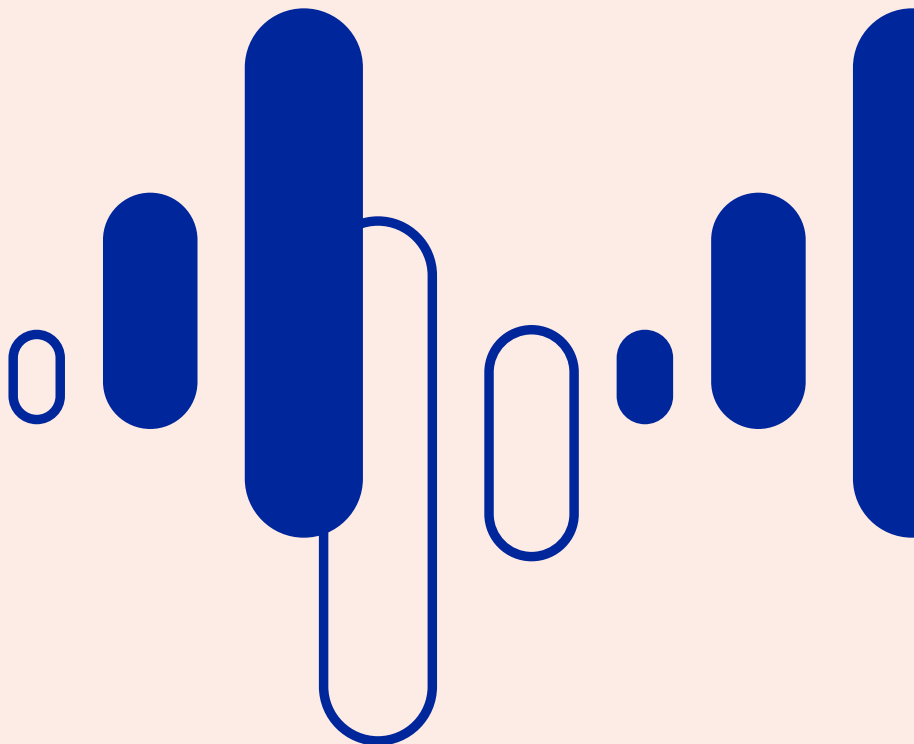
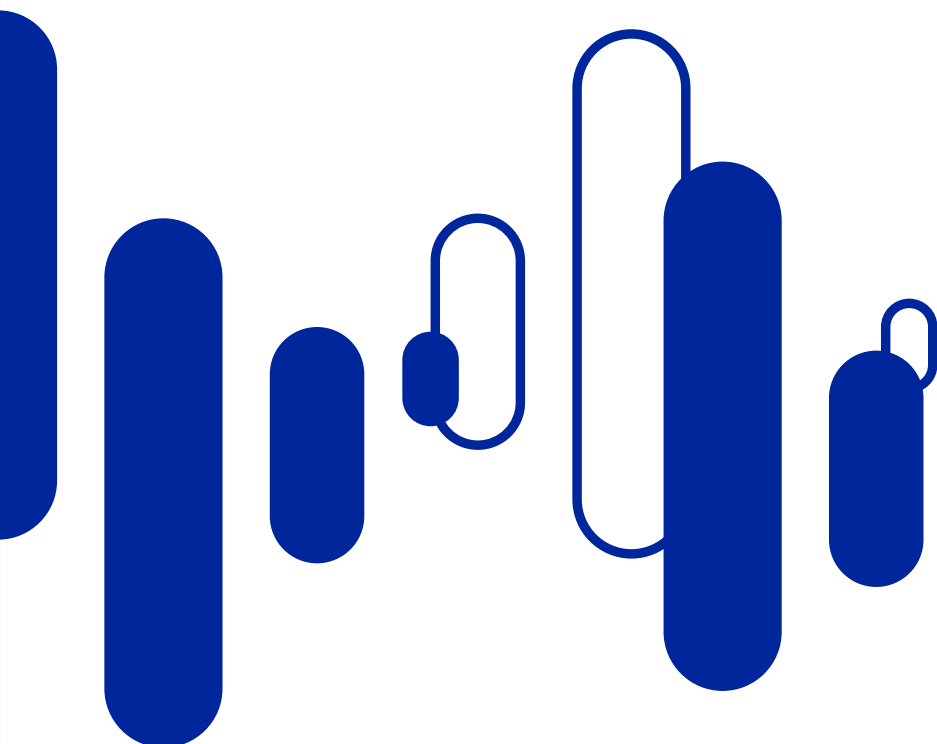


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Nordea Green Bond developments

The first half of 2019 marked the next step in Nordea's work with Green Bonds, when our second bond was issued in May. The second bond, a EUR 750 million 7-year senior preferred benchmark was well received by the markets. The transaction further strengthens Nordea's leading position as a green issuer in the EUR market and highlights the strength of Nordea's Green Bond Framework and group-wide commitment to sustainability.

The market for sustainable finance has continued to grow during this year. Clients are increasingly asking for green or sustainable lending products, whereas investors are increasingly asking for green and sustainable investments. During 2018 and 2019, work within the green lending area has been continuous and consequently, we have launched green loan products in all the Nordic countries in our Business Banking segment. The green loans follow the same strict criteria for greenness as set out in our Green Bond Framework and are after careful internal and external evaluation included in our Green Bond Asset Portfolio. The launch of the green loans as well as market demand for green

products, has helped us grow our Green Bond Asset Portfolio significantly since the inaugural issuance in 2017. The most recent, externally verified, Green Bond Asset Portfolio volume is EUR 2,56 billion. You can read more about the composition of our Green Asset Portfolio on page 9.

This Green Bond report is our second report covering our green bond issuances. It presents both the allocation of proceeds to green projects from the two bonds we have issued, as well as the impact we create through these bonds. The impact is reported on both bond and Green Bond Asset Portfolio level. For this report, we have utilised the "Handbook – Harmonized Framework for Impact Reporting" published by the International Capital Markets Association (ICMA) as well as the "Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting", where applicable. We are committed to reporting on our impact on a yearly basis and will continue to develop both the content of our reporting as well as the methodology for calculating our impact.



Sustainability in Nordea and the role of Green financing

Nordea has set the mission to enable the transition to a sustainable future in our capacity of a major bank and through the choices we make. We address the UN's Sustainable Development Goals (SDGs) as part of our efforts. Enabled by sustainable finance, we adapt to changes in our business environment – in demand, expectations and opportunities – to become increasingly digitalised and climate friendly. We mitigate risks related to the environment, social issues, corporate governance, financial crime, credit losses, reputation and an uncertain future. We do so by integrating sustainability throughout the bank, into our products and processes in our core areas of investment, financing and advice, and in our internal operations.

To support companies' transition to more sustainable business models, we offer green bonds. We work with green bonds in two different ways. Firstly, we issue our own green bonds where proceeds are earmarked to finance such loans to customers which have environmental benefits and mitigate climate change. Secondly, we serve as the intermediary between our customers as issuers

and investors, by helping them to issue, or invest in, green bonds via the capital markets.

Green loans are used to finance specific investments with environmental benefits and give our corporate customers the opportunity to address climate change in their financing. The customer commits to using the financing for a sustainable investment, which requires them to report the positive impact from the investment on energy or water consumption, for example.



Main characteristics of Nordea Green Bonds

In the following sections the main characteristics of Nordea Green Bonds are presented. Further information on our green bond process, Green Bond Framework and our Green Bond Asset Portfolio as well as the latest Second Party Opinion can be found [here](#).

Green Bond asset categories

Nordea's Green Bond Framework sets the basis for the identification, selection, verification and reporting of the sustainable financing that is eligible for being financed by proceeds of the Green Bonds issued by Nordea, and the management of such proceeds.

The Green Bond Framework is based on the Green Bond Principles ("GBP") published by the International Capital Markets Association ("ICMA"). The Green Bond Framework is updated on a continuous basis, as the GBP and market practices evolve.

We are committed to support the growth and integrity of the market for Sustainable Financing.

The categories Nordea has chosen as eligible for use of proceeds from our Green Bonds are presented in the adjacent table. The categories have been chosen based on Nordea's overall goal of enabling the transition to a sustainable society in general and combating climate change specifically. It is in these categories, that Nordea sees it has the greatest potential to make an impact by generating environmental benefits through our financing efforts. The alignment is further enhanced through our recently (2018) updated materiality analysis, where climate action was defined as Nordea's top priority for our strategic direction and sustainability focus.

GBP ¹ category	Project types
Renewable Energy	<p>“Renewable Energy” means generation and transmission of energy from renewable sources and manufacturing of the related equipment for:</p> <ul style="list-style-type: none"> • wind power • solar power • hydro power <ul style="list-style-type: none"> • small scale plants, run of river plants or refurbishments of existing larger hydro power plants in the Nordic countries without any increase in the size of its impoundment facility • integrating renewable energy sources into the transmission network
Energy Efficiency	<p>“Energy Efficiency” means infrastructure, equipment, technology and processes related to smart grids, energy storage and district heating including:</p> <ul style="list-style-type: none"> • Automation and intelligence in the power transmission network, distribution and related systems
Green Buildings	<p>“Green Buildings” means; Commercial or residential buildings with at least any of the following certifications:</p> <ul style="list-style-type: none"> • the LEED “gold” certification • the BREEAM “very good” certification • the Miljöbyggnad “Silver” certification (Sweden) • Nordic Swan Ecolabel • the RTS “2 stars” certification, or • Renovations and refurbishments of commercial or residential buildings leading to reduced, or existing buildings having an annual energy use on a m2 basis that is at least 25% lower than the applicable national regulations in the relevant Nordic country, or that lead to an annual reduction of energy use on a m2 basis of at least 25%.
Pollution Prevention and Control	<p>“Pollution Prevention and Control” means projects or activities and any related infrastructure, equipment, technology and processes towards</p> <ul style="list-style-type: none"> • water and waste water management • waste-to-energy
Clean Transportation	<p>“Clean Transportation” means projects or activities and related equipment, technology and processes towards clean transportation infrastructure, including expansion and improvements of train and metro networks, stations and rolling stock for passenger or freight transportation, such as:</p> <ul style="list-style-type: none"> • electric vehicles, e.g. trains, busses, cars and ferries
Sustainable Management of Living Natural Resources	<p>“Sustainable Management of Living Natural Resources” means Projects or activities related to sustainable forestry or agriculture in the Nordic countries, including acquisition, maintenance and management of:</p> <ul style="list-style-type: none"> • forests certified by Forest Stewardship Council (“FSC”) or Programme for the Endorsement of Forest Certification (“PEFC”) (Sweden) • sustainable agriculture in the Nordic countries comprised of organic farming as certified in compliance with the EU and national regulation

¹ Green Bond Principles

Nordea process for Project Evaluation and Selection

Nordea will complete the process shown below when selecting and evaluating financing within the Green Bond Asset Categories that qualify as assets to be included in the Green Bond Asset Portfolio, and specifically, the Green Bond Assets in relation to Green Bond issuances.

Thereafter a confirmation process is undertaken by a Green Bond Committee within Nordea in respect of the assessments made by other staff in

relation to the Green Bond Asset Categories. The Green Bond Committee will also review the Green Bond Asset Portfolio and confirm the allocation to Green Bond Assets of the proceeds of Green Bond issuances on a semi-annual basis. The Green Bond Committee will further confirm any replacement of repaid Green Bond Assets with assets from the Green Bond Asset Portfolio or, if such are not available, to liquidity funding accounts.

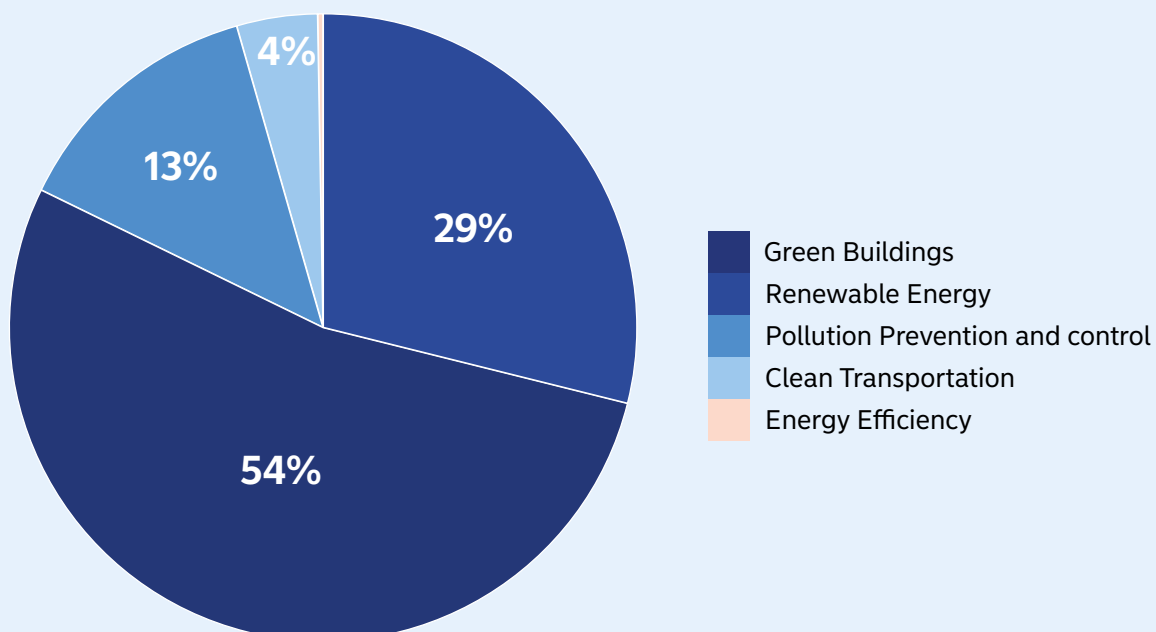


Green Bond Asset Portfolio Overview

Category	Sub-category	Green Bond Asset Portfolio amount, mEUR
Renewable Energy	Wind power	283
	Hydro power	456
	Subtotal	739
Green Buildings	Green Buildings	1 371
	Subtotal	1 371
Pollution Prevention and control	Water and waste water treatment	57
	Waste to energy	281
	Subtotal	338
Clean Transportation	Electric cars	22
	Electric trains	79
	Electric ferries	8
	Subtotal	109
Energy Efficiency	District heating	1
	Subtotal	1
Total		2,558

Over the two years since the establishment of our Green Bond Asset Portfolio and the issuance of our inaugural Green Bond, our Green Bond Asset Portfolio has experienced a steady pace of growth. From EUR 807 million in June 2017, the externally verified volume of the Green Bond Asset Portfolio

is more than three times the original, amounting to EUR 2,56 billion in September 2019. The growth is driven by increased market demand for green loans, as well as our launch of green loans in the Business Banking segment.



Impact of Nordea Green Bonds and Green Bond Asset Portfolio

Impact of the Green Bond Asset Portfolio

Category	Sub-category	Green Bond Asset Portfolio amount, mEUR	Annual emissions avoided, tCO ₂ e	Annual energy production, GWh	Annual energy savings, GWh	Annual water treatment, million m ³	No. people transported, t	SDGs*
Renewable Energy	Wind power	283	624 233	1 723				
	Hydro power	456	507 170	1 335				
	Subtotal	739	1 131 403					3,7,8,9,11,12,13
Green Buildings	Green Buildings	1 371	4 018		11			11
	Subtotal	1 371	4 018		11			
Pollution Prevention and control	Water and waste water treatment	57				217		
	Waste to energy	281	138 334	1 667				
	Subtotal	338	138 334					3,11,12
Clean Transportation	Electric cars	22					873	
	Electric trains	79					6 414	
	Electric ferries	8					725	
	Subtotal	109					8 013	11
Energy Efficiency	District heating	1	40					7,8,9
	Subtotal	1	40					
Total		2 558	1 273 795	4 725	11	217	8013	

Impact of 1st Green Bond

Category	Sub-category	Green Bond Asset Portfolio amount, mEUR	Annual emissions avoided, tCO ₂ e	Annual energy production, GWh	Annual energy savings, GWh	Annual water treatment, million m ³	SDGs*
Renewable Energy	Wind power	79	114 945	302			
	Hydro power	100	201 756	531			
	Subtotal	179	316 701	833			3,7,8,9,11,12,13
Green Buildings	Green Buildings	269	670		2		11
	Subtotal	269	670		2		
Pollution Prevention and control	Water and waste water treatment	24				23	
	Waste to energy	31	32 834	278			
	Subtotal	55	32 834	278			3,11,12
Total		503	350 205	1 111	2	23	

* Source: GREEN AND SOCIAL BONDS: A HIGH-LEVEL MAPPING TO THE SUSTAINABLE DEVELOPMENT GOALS, June 2018



Impact of 2nd Green Bond

Category	Sub-category	Green Bond Asset Portfolio amount, mEUR	Annual emissions avoided, tCO ₂ e	Annual energy production, GWh	Annual energy savings, GWh	No. people transported, t	SDGs*
Renewable Energy	Wind power	126	122 094	401			
	Hydro power	140	245 146	645			
	Subtotal	266	367 240	1 046			3,7,8,9,11,12,13
Green Buildings	Green Buildings	335	283		1		11
	Subtotal	335	283		1		
Pollution Prevention and control	Waste to energy	102	24 779	157			
	Subtotal	102	24 779	157			3,11,12
Clean Transportation	Electric cars	22				873	
	Electric trains	31				3 085	
	Subtotal	53				3 958	11
Total		756	392 302	1 203	1	3 958	



Aila Aho, Executive Sustainability Adviser,
member of the European Commission's Technical Expert Group on Sustainable Finance

Commentary by Aila Aho: EU taxonomy and Green Bond Standard

In June 2019 the Technical Expert Group for Sustainable Finance (TEG), set by the European Commission, published its reports on sustainable finance. Aila Aho from Nordea is the rapporteur for the Green Bond Standard subgroup of TEG. The reports are about newly proposed taxonomy – a criteria to define economic activities as sustainable, EU Green Bond Standard, climate benchmarks, and an update of the EU guidelines for the Non-financial Reporting Directive (NFRD).

The proposed taxonomy presents the first ever environmental framework and harmonized criteria for economic activities for financial markets. The criteria are technology neutral and science-based and they aim at bringing the economy to a net zero carbon level by 2050. The activities specified in the TEG report are expected to deliver substantial contribution to climate change mitigation or adaptation, while not significantly harming any of the other environmental objectives. The criteria for the other four environmental objectives will be defined by end of 2021.

The taxonomy provides all kinds of investors a tool to evaluate corporates' activities in environmental terms, and to develop sustainable product offerings for their clients. The Green Bond Standard defines positive impact on the environment through the taxonomy. Nordea's involvement in the work of the technical expert group is a testament to our commitment to drive sustainable finance.

"We had eleven months of intensive work together with the top-level experts in our industry, and representatives of academia, civil society and Commission. It was highly rewarding to see how the group grew together and delivered such comprehensive and ground-breaking reports. The work has continued with the same intensity during fall 2019. Investors, issuers and underwriters have followed the work closely. The appreciation has been tangible and encouraging, but we have also been challenged. The taxonomy gives practical guidance for anyone interested in understanding climate change mitigation for industry, in particular Nordea customers."

The TEG will publish updated reports in the early part of 2020 together with user guidance. The European Commission has already published the updated guidance for integrating climate information into the NFRD reporting, and the key content of the taxonomy and benchmarks legislation has been agreed with the co-legislators. The taxonomy will also become a part of corporate disclosure frameworks. All this means that sustainable finance is leaping forward, and with the Green Bond Standard already mentioned in the Commission's new Green Deal we can expect this to continue. Nordea follows the developments closely, and work is ongoing in evaluating the effect the Green Bond Standard potentially has on Nordea's green bond issuances and green bond process.

Commentary by Juho-Pekka Jääskeläinen: Green Bond market developments

Issuing our second green bond in May 2019 was a natural step on our journey towards a more sustainable society. As a bank, we see many benefits in issuing green bonds, and the connection of green bonds to our other sustainability related products and services, and sustainability work in general, is clear. To give a few examples, our green bonds enable the connection between investor demand and sustainable lending to customers, who want for instance all aspects of an investment to be sustainable. Including sustainably sourced financing is a good starting point. From Nordea's point of view, this builds a more sustainable credit portfolio. As our direct environmental impact as a bank is only minor, green bonds help us in managing and mitigating our indirect impact and supports our fight against climate change. And lastly, green bonds help us diversify our investor base, which was evidenced by the most recent issuance where the final book included over 100 separate accounts, many of which are dedicated green investors.

Issuing our second green bond also shows that we are proactively following market trends and responding to investor demand. Green Bond supply showed record numbers in H1 in 2019, however the pace has somewhat slowed down during autumn. Combined figures for green, social and sustainability bonds are expected to set records for 2019, and the consensus is that this market is now growing on its own rather than by the general debt capital markets. Social and sustainability bonds have increased their relative share of the total. At Nordea, we are exploring the possibilities herein and considering the additional benefits new issuances would bring to us for instance in the form of an even more diversified investor base.

Our aim is to continue being committed to leadership on Sustainable Finance in the Nordics. This incorporates issuing own green bonds, arranging various types of sustainability bonds for our clients as well as increasing the amount of green and sustainability-linked lending.

Juho-Pekka Jääskeläinen, Senior Treasury Manager
Long term funding





Methodology notes

Nordea reports the estimated impact of the assets financed by the Green Bonds on an aggregate level per category. Calculations have been done for the time period of 1.7.2018-30.6.2019. When real energy production or water treatment figures have been used, the time period is 2018. To the extent available, the reporting is based on real data reported by the projects, companies or other organisations. If such information has not been available, Nordea has used estimates for the relevant asset type and location. Estimates are based on the average of similar (size, location) assets within the Green Bond Asset Portfolio. The avoided CO₂ emissions and other impacts are reported in accordance with Nordea's debt financing share. It is assumed that new energy capacity crowds out fossil fuel based generation. Hence, wind power and hydropower are assumed to crowd out CO₂ emissions in line with the defined emission factor. We have

opted to use the emission factor of 380 gCO₂/kWh presented in the Nordic Public Sector Issuer's Position Paper on Green Bonds Impact Reporting.² This baseline represents a European mainland mix including Norway. The emission factor is calculated as Combined Margin according to IFI Harmonized Framework methodology, combining a Build Margin and Operating Margin. Same combination of Build Margin (50%) and Operating Margin (50%) is used for all energy projects. We will update this baseline in accordance with updates to the NPSI Position Paper or other relevant guidelines. For Green Buildings, we are using national building standards as a baseline for measuring impacts. As NPSI Position Paper on Green Bonds Impact Reporting suggests, we disclose the energy savings from green buildings as a net value in relation to national building requirements. We have both commercial and residential buildings in the Green Bond Asset Portfolio, and respective

² https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/NPSI_Position_paper_2017_Final-261017.pdf



national building requirements are used based on the building year. For buildings where we have not obtained actual energy consumption figures, we have estimated the energy savings based on the building certificate requirements, national building requirements and the building year and floor area. In general, it is noteworthy that when Nordea has had to estimate the annual energy output instead of using actual generation figures, the results are more inaccurate and give an order of magnitude estimates of electricity produced and, therefore, CO₂ emissions avoided. Same uncertainty in reported results applies to other Green Bond Asset Categories as well.



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