

Annual Green Bond Report 2021

Stockholm Exergi

Continued development of the value of district heating

During the year, we have continued taking important steps towards creating even more benefits for society. We have pursued our project to build a large-scale facility for bio-CCS capture and storage and in the autumn, the EU Innovation Fund selected us as one of seven European projects that together received a share of EUR 1.1 billion. It feels incredibly inspiring to be the company who dares to show the way.

During the fall, it was decided that Ankhiale would be our new partner. Ankhials have a clear sustainability agenda, they are long-term in their

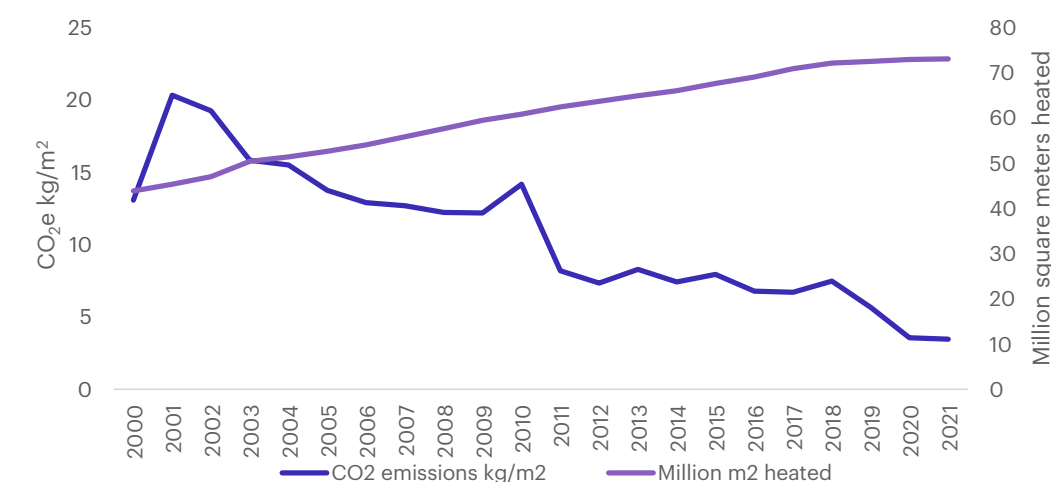
commitment and they share our values and business orientation. It is an owner who gives power to the journey that Stockholm Exergi has begun. Together with our other owner, Stockholm city, we have the stability and a full mandate required to fulfill the sustainable goals we have pointed out.

The year 2021 has clearly shown a need for the solutions that we, as a company, can deliver to society. More exciting years are awaiting our journey towards reaching our goal of having a climate-positive company in 2025.

About district heating in Stockholm

Over the past 20 years, the heated area of properties connected to district heating in Stockholm has almost doubled. At the same time, total emissions from district heating have decreased by more than 55 percent, meaning that the emissions per heated property area have decreased by more than 73 percent. This sharp decrease has been achieved together with property owners and businesses' own energy efficiency improvements and replacements of fossil based heat production. In order to achieve net-zero CO₂-emissions, energy must be used efficiently, fossil fuels must be phased out, and the fossil content in the refuse derived fuels must be reduced.

CO₂-emissions from district heating per heated square meter



Impact reporting for the Green Bond Framework 2019

In August 2019, Stockholm Exergi Holding AB (publ) updated its Green Bond Framework and received a second opinion from the Norwegian climate research institute CICERO Shades of Green. With a CICERO Dark Green shading and an excellent governance assessment the 2019 Green Bond Framework achieved the highest possible rating outcome. Both the Green Bond Framework and the second opinion from CICERO can be found [here](#).

In September 2019, Stockholm Exergi Holding AB (publ) issued its first green bonds under the framework and in September 2020 and April 2021, five additional green bonds with a total amount of 3 200 MSEK were issued. As per December 31st 2021, Stockholm Exergi had in total issued 7 green bonds with a total nominal amount of 5 200 MSEK and maturities between Sep 2023 and May 2028 under the 2019 Green Bond Framework.

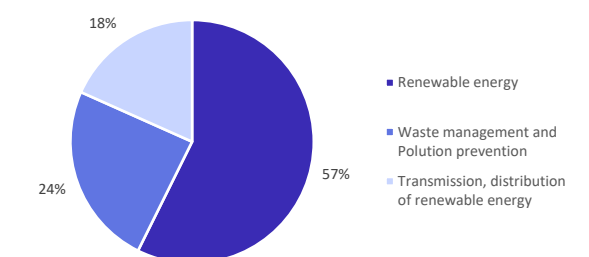
All of the proceeds of 5 200 MSEK have been allocated by Stockholm Exergi's Green Bond Committee to the three different green project categories and most of the proceeds (57%) were allocated to projects within the renewable energy category. More than half of the proceeds (52%) have been allocated to new projects whereas 48% went to refinancing of older eligible projects.

The following charts illustrate the allocation of proceeds to the different green project categories and between new financing and refinancing. The use of proceeds from green bonds and allocation to eligible green investments outlined in this report is as per cut-off date December, 31st 2021 and the impact reporting is based on calendar year 2021, where relevant.

Green Project Portfolio distribution based on disbursed amounts

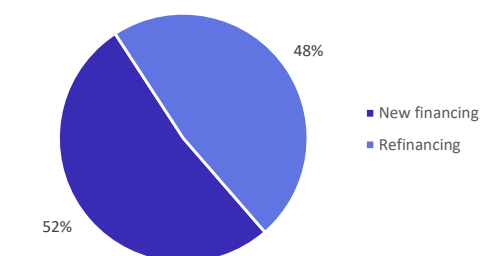
The proceeds of the Green Bonds will finance or refinance, in whole or in part, investments undertaken to promote the transition towards low-carbon and resource-efficient growth ("Green Projects") under the following categories:

- Renewable energy
- Waste management and Pollution prevention
- Transmission, distribution of renewable energy



Distribution between new financing and refinancing based on disbursed amounts

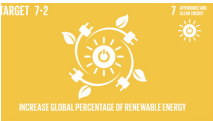


New financing is defined as Green Projects under construction or Green Projects taken into operation less than 12 months prior to the approval by Stockholm Exergi's Green Bond Committee. Refinancing is defined as financing for Green Projects taken into operation more than 12 months prior to the Green Bond Committee's approval.




Projects financed under the 2019 Green Bond Framework

Under the 2019 Green Bond Framework, Stockholm Exergi issued green bonds with a total nominal value of SEK 5 200 MSEK in September 2019, September 2020 and April 2021. All of the proceeds have been allocated by the Green Bond Committee to the eligible projects presented in the table below.

The total investment amount for the chosen eligible projects amounts to over 7 700 MSEK and the share of the respective project that is financed by bonds under the 2019 Green Bond framework is stated in the "Outstanding disbursed green bond amounts" column. If not otherwise mentioned, all amounts refer to new financing:

Sustainability Performance Goal	Green Project Category	Project	Description	Total Investment MSEK	Total impact for investment	Outstanding disbursed green bond amounts allocated to project 2019-2021 MSEK	Impact for disbursed green bonds amounts	Impact tonnes CO ₂ e per MSEK
 	Renewable Energy	Biomass (CHP8) Värtan, completed 2016. Financing of new infrastructure projects associated with CHP8.	Refinancing of new capacity for production of renewable energy. CHP8 has produced 1 800 GWh renewable heat and 596 GWh renewable electricity during 2021. Projects have been conducted to support and improve the production facility.	5 868	Actual savings: 332 780 tonnes CO ₂ e	2484 (of which 2028 MSEK is refinancing)	Actual savings: 140 830 tonnes CO ₂ e	57
		CHP1 Värtan	Renovation of the CHP1 plant in Värtaverket including conversion to biofuels. A measure to secure sufficient electricity capacity in order to enable society's necessary transformation from fossil fuel based road traffic to electric road traffic.	N/A	N/A	324	Expected emission reduction: 5 200 tonnes CO ₂ e	N/A
		G3 Värtan	Renovation of Gas turbine 3 in Värtaverket including conversion to biofuels. A measure to secure sufficient electricity capacity in order to enable society's necessary transformation from fossil fuel based road traffic to electric	N/A	N/A	174	Expected emission reduction: 290 tonnes CO ₂ e	N/A
	Waste management and pollution prevention	CHP, Brista 2, completed 2014	CHP plant for waste incineration. Brista 2 has produced 417 GWh heat and 97 GWh electricity during 2021, thereby reducing the use of primary energy resources and emissions from landfill.	2 233	Actual savings: 18 930 tonnes CO ₂ e	458 (of which 458 MSEK is refinancing)	Actual savings: 3 880 tonnes CO ₂ e	8,5
		P8 Högdalen, under construction, completion 2022.	Construction of a new CHP plant for waste incineration in Högdalen, replacing boiler 1 and 2. Emission reductions are achieved by a new flue gas cleaning system. The plant is in operation since the beginning of 2021.	776	Actual emission reductions: - NOx 62 tonnes - NH ₃ 14 tonnes Estimated reduction of the use of ammoniac: 500 m ³ per year	765	Actual emission reductions: - NOx 61 tonnes - NH ₃ 13 tonnes Estimated reduction of the use of ammoniac: 493 m ³ per year	N/A
		Carbon sinks, BioCCS Stockholm	Project for building Bio-carbon capture system at CHP8 in Värtaverket. The plant is planning to achieve a permanent removal of 800 000 tonnes of CO ₂ per year.	N/A	N/A	42	N/A	N/A

Projects financed under the 2019 Green Bond Framework

Sustainability Performance Goal	Green Project Category	Project	Description	Total Investment MSEK	Total impact for investment	Outstanding disbursed green bond amounts allocated to project 2019-2021	Impact for disbursed green bonds amounts	Impact tonnes CO ₂ e per MSEK
	Transmission, distribution of renewable energy, energy recovery and energy storage	Investments related to “Smarta Fastigheter” (Smart Buildings) and DSM (Demand Side Management). Ongoing with start 2019.	Investments in hardware and infrastructure enabling reduced carbon emissions in production mix and enabling customers to reduce energy consumption further. This technology has the potential of reducing CO ₂ emissions with approximately 6 400 tonnes in total from year 2021 to 2025.	154	Actual savings: 300 tonnes CO ₂ e 406 MWh heat	154	Actual savings: 300 tonnes CO ₂ e	1,9
		Sum of distribution projects enabling the connection of new end-users. Investments during 2021.	These distribution projects will enable an increase of 77 GWh distributed heat per year and an avoidance of 36 000 tonnes CO ₂ emissions in total from year 2021 to 2025.	650	Actual savings: 9 210 tonnes CO ₂ e	650	Actual savings: 9 210 tonnes CO ₂ e	14
		DH network connection to Nacka (Nackaledning)	New DH network connection to Nacka municipality will enable an increase of 200 000 MWh distributed heat per year.	198	Expected emission reduction: 141 120 tonnes CO ₂ e	85	Expected emission reduction: 60 580 tonnes CO ₂ e	N/A
		DH network connection (Sammanbindningsledning)	Project planning for the integration of the Northern and Central/South DH networks. The project will enable further developement of the distributon system and thus allow an increase of environmental beneficial DH production.	N/A	N/A	64	N/A	N/A
		TOTAL						5200

Reporting methodology

Biomass (CHP8) Värtan, KVV1, G3

To calculate the actual annual avoided climate impact of the project, the completed project is compared to a baseline in which the investment does not exist. The impact of heat and electricity production are added. The baseline used for heat production is Stockholm Exergi's district heating system's annual impact before project implementation. The baseline used for electricity is the European mainland mix including Norway, 315 g CO₂ per kWh according to Nordic Position Paper on Green Bonds Impact Reporting.

Actual annual avoided climate impact (CO₂e) of the project = actual annual output of heating for the project * (baseline emission factor for heat produktion - project emission factor) + actual annual output of electricity * (baseline emissions factor for electricity - project emission factor).

CHP Brista 2

Same principle as above with the baseline emissions factor for heating estimated from national Swedish average for avoided alternative heating and from avoided alternative waste treatment, 158 g CO₂ per kWh according to Nordic Position Paper on Green Bonds Impact Reporting.

Actual annual avoided climate impact (CO₂e) of the project = actual annual output of heating for the project * (baseline emission factor for heat produktion - project emission factor) + actual annual output of electricity * (baseline emissions factor for electricity - project emission factor).

P8 Högdalen

To calculate the emission reductions related to the project, the expected improved performance of P8's new flue gas treatment system is compared to the emissions before project implementation. The same comparison is made concerning the use of ammoniac for NOx-reduction.

Smart buildings

The CO₂ emissions savings regarding smart buildings and Demand Side Management are based on reduced customer energy consumption and Stockholm Exergi's district heating system annual environmental impact. The annual environmental impact of optimized production is estimated to 0,9 tonnes CO₂ savings per customer which is itself based on how the production fuel mix is optimized.

Sum of distribution projects enabling the connection of new end-users, Nackaledning

To calculate the actual annual avoided climate impact of the projects, the sum of the completed projects is compared to a reference scenario in which the investment does not exist. The baseline emissions factor for heating is estimated from national Swedish average for avoided alternative heating and from avoided alternative waste treatment, 158 g CO₂ per kWh according to Nordic Position Paper on Green Bonds Impact Reporting.

Actual annual avoided climate impact (CO₂e) of the projects = actual annual output of heating to new end users * (baseline emissions factor for heating - Stockholm Exergi's district heating system emission factor).

Green Bond Framework 2015

In May 2015, Stockholm Exergi Holding AB (publ) issued its inaugural green bonds under the 2015 Green Bond Framework. Two bonds were issued, a 1 000 MSEK bond with a tenor of 6 years and a 1 500 MSEK 7 years bond. By the time of issuance, this transaction was considered the largest green bond transaction in SEK ever.

All of the proceeds, 2 500 MSEK, had been allocated during 2015 but since the bond with the 6 years tenor has already matured during

2021 there are proceeds of 1 500 MSEK still allocated to green projects. 1 352 MSEK are allocated to new projects and 148 MSEK to refinancing of older compliant projects. The projects in the portfolio are eligible based on Stockholm Exergi's Green Bond Framework from 2015, which has received a second opinion from the Norwegian climate research institute CICERO. The projects cover all areas of the framework – Renewable energy, Energy efficiency and Reduced environmental impact.

Project	Stockholm Exergi Green Bond Framework	Improvement	Total Investment SEK million	Disbursed green bond amounts SEK million
New waste incineration- CHP Brista 2	New capacity in waste to energy (WtE) solutions or change of energy source in existing production in order to reduce primary energy usage in society.	New capacity reduces the use of primary energy resources by approximately 45 GWh per year.	2 233	750
New biomass CHP Värtan (CHP8)	New capacity for production of renewable energy (new plants or productions units, modification of existing facilities).	Reduces CO ₂ -emissions in Stockholm by 345 000 tons per year.	5 800	487
New sales replacing old solutions	Investments in distribution systems that enable change in operations, or enable the connection of end users to the district heating network and thereby replacing local fossil supply.	Annual reduction of 8 600 tons of CO ₂ .	85	51
Flue Gas Condensation Brista and Högdalen	Flue gas and waste water cleaning. Energy recovery measure at production site.	Water emissions well within scope of environmental permit. 536 GWh of annual energy recovery.	82	49
Heat recovery in Brista	Energy recovery measures at production site.	32 GWh of annual energy recovery.	25	15
Refinancing	Refinancing of existing eligible projects.			148
Total				1 500

Auditor's Limited Assurance Report on Stockholm Exergi's Green Bond Report

*To Stockholm Exergi Holding AB (publ),
corporate identity number 556040-6034*

Introduction

We have been engaged by Stockholm Exergi Holding AB (publ) ("Stockholm Exergi") to undertake a limited assurance engagement of the the Impact reporting for the Green Bond Framework 2019 as of 31 December 2021 as set out on page 3-6 in this document ("the Reporting").

Responsibilities of Management

Stockholm Exergi Management is responsible for the preparation of the Reporting in accordance with the applicable criteria, as explained in the Stockholm Exergi Green Bond Framework 2019 (available at <https://www.stockholmexergi.se/om-stockholm-exergi/finansiell-information/finansiering/>) as well as the accounting and calculation principles that the Company has developed. This responsibility also includes the internal control relevant to the preparation of the Reporting that is free from material misstatements, whether due to fraud or error.

Responsibilities of the auditor

Our responsibility is to express a conclusion on the Reporting based on the limited assurance procedures we have performed. Our engagement is limited to historical information presented and does therefore not cover future-oriented information.

We conducted our limited assurance engagement in accordance with ISAE 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial Information. A limited assurance engagement consists of making inquiries, primarily of persons responsible for the preparation of the Reporting, and applying analytical and other limited assurance procedures. The procedures performed in a limited assurance engagement vary in nature from, and are less in extent than for, a reasonable assurance engagement conducted in accordance with International Standards on Auditing and other generally accepted auditing standards in Sweden.

The firm applies ISQC 1 (International Standard on Quality Control) and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We are independent of Stockholm Exergi in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

The procedures performed consequently do not enable us to obtain assurance that we would become aware of all significant matters that might be identified in a reasonable assurance engagement. Accordingly, the conclusion of the procedures performed do not express a reasonable assurance conclusion.

Our procedures are based on the criteria defined by Stockholm Exergi Management as described above. We consider these criteria suitable for the preparation of the Reporting.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion below.

Conclusion

Based on the limited assurance procedures we have performed, nothing has come to our attention that causes us to believe that the Reporting as of 31 December 2021, is not prepared, in all material respects, in accordance with the applicable criteria, as explained in the Stockholm Exergi Green Bond Framework 2019.

Stockholm 26 April 2022
Deloitte AB

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Authorized Public
Accountant

Adrian Fintling
Expert Member of FAR