



Stockholm Exergi

Annual Green Bond Report 2017

2017 Green Bond Report

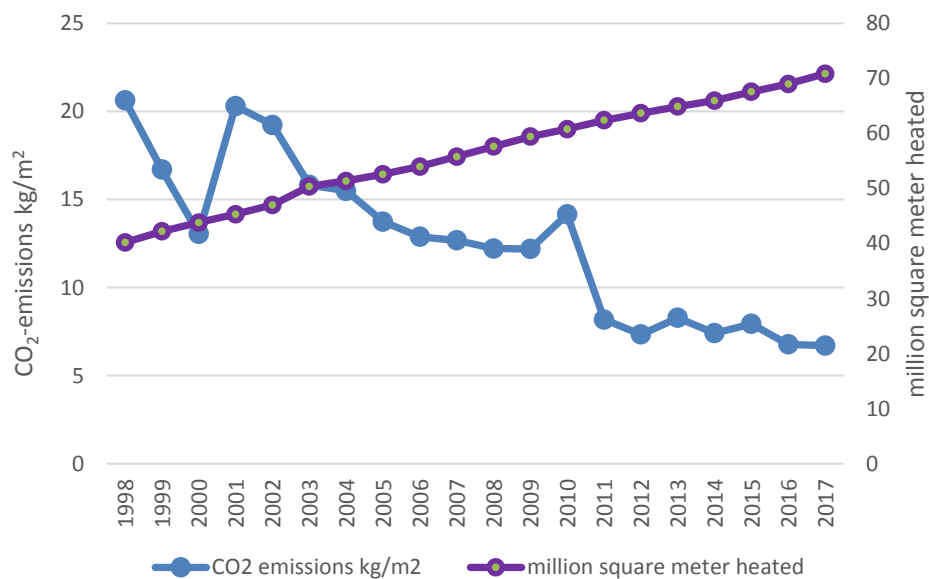
In May 2015, Stockholm Exergi Holding AB (publ), operating under the name of AB Fortum Värme Holding samägt med Stockholms stad (publ) by that time, made its first green bond issuance. Stockholm Exergi raised 2 500 MSEK in a dual tranche issuance of 6 and 7 year tenors. By the time of issuance, the transaction was considered the largest ever green bond transaction in SEK.

Issuing green bonds was a natural choice for Stockholm Exergi given the sustainable business and the ambitious investment in renewable energy production and carbon emission reductions.

Stockholm Exergi have established a funding structure where over 50% of the funding is conditioned by the environmental benefits of our business and green bonds represent approximately one third of that portion. For further information please visit Stockholm Exergi's website. Radically Reduced Emission of Greenhouse Gases from Heating of Stockholm Area

District heating has a long history of strong expansion. The supply doubled since the beginning of 1990's and now covers well over 80 % of overall heating demand in Stockholm. A major part of the expansion is due to connection of existing properties. Through a combination of small oil boiler shut downs, better environmental performance in the production, and energy efficiency in buildings, the overall climate impact due to heating of constructions in Stockholm, has been radically reduced.

Emissions from district heating per heated square meter



Over the past 20 years, the heated area of buildings connected to district heating increased by almost double. At the same time, greenhouse gas emissions from district heating production has fallen by more than 20 %, which means that emissions from heating of buildings have decreased by 60 %. This, together with the building's own energy efficiency and remuneration of their earlier heat production is the reason that emissions from heating in Stockholm have decreased significantly.

Project's Financed With the Proceeds From the Green Bonds

All of the proceeds 2 500 MSEK have been allocated during 2015. 2 254 MSEK was allocated to new projects and 246 MSEK to refinancing of older projects meeting the criteria of our green bond framework. The projects in the portfolio are eligible based on

Stockholm Exergi's Green Bond Framework from 2015, which also has a second opinion from the Norwegian climate research institute CICERO. The projects cover all areas in the framework – Renewable energy, Energy efficiency and Reduced environmental impact.

The development of each project is described in the table below:

Project	Stockholm Exergi Green Bond Framework	Improvement	Total Investment, MSEK	Allocated from Green Bonds, MSEK
New waste incinerated CHP Brista 2	New capacity in waste to energy 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 71 GWh per year	2 200	1 250
New bio incinerated 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 170 000 tons per year and by 460 000 tons per year from European electricity production	5 000	812
New sales replacing old solutions	Investments in distribution systems that enable change in operations, or enable connecting end users with district heating and by that replacing local fossil supply	Annual reduction of 11 000 tons of CO ₂ and 58 % increased use of renewable or recovered energy	85	85
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. 530 GWh of annual energy recovery.	82	82
Heat recovery in Brista	Energy recovery measures at production site	20 GWh of annual energy recovery	25	25
Refinancing	Reinvestments in or refinancing of existing eligible projects.			246
Total				2 500



Stockholm Exergi – creating energy in tomorrow's cities

Stockholm Exergi creates a pleasant indoor climate for people living and working in the Stockholm region. The local energy company, ownership of which is shared equally between Fortum and the City of Stockholm, produces resource-efficient district heating, district cooling, and electricity. Working hand in hand with customers and Stockholmers, Stockholm Exergi has helped ensure that Stockholm is rated one of the most sustainable capital cities in the world.

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