

Wallenstam Green Bond Second Opinion

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Wallenstam is a Swedish property company that owns around 220 properties in Stockholm, Gothenburg and Uppsala. Wallenstam has reported its sustainability work since 2006 and has reported in accordance with the Global Reporting Initiative (GRI) since 2010. The company supports the UN's Global Compact initiative and Agenda 2030.

Wallenstam has solid management and governance structures, as well as plans for regular and transparent reporting about green bond project achievements to investors and the public. The overall assessment of the governance structure of Wallenstam's Green Bond Framework is a rating of Excellent. Since 2013 Wallenstam has been producing sufficient electricity from its wind turbines to meet its own demand. For all new buildings the issuer aims for meeting the Miljöbyggnad silver level. The total energy use has been reduced by more than 4 percent per year on average the last five years. Wallenstam has implemented several resiliency measures for some of its buildings, e.g., for those close to the river in central Gothenburg. The issuer does not, however, currently screen all buildings for climate risks, and does not track construction phase emissions.

The majority of the proceeds will be allocated to dark green wind projects and medium green buildings with approximately an equal share. The energy efficiency requirements for existing buildings of 20 percent below the building code for new buildings, are clearly ambitious. Additional dark green project categories are clean transportation and energy efficiency. The longer-term ambition is to allocate the majority of the net proceeds to new projects and assets. Initially, the majority of the net proceeds will however be allocated to existing projects and assets.

Based on the overall assessment of the project types that will be financed by the green bonds and governance and transparency considerations, Wallenstam's Green Bond Framework receives a **Dark Green** shading.

SHADES OF GREEN

Based on our review, we rate Wallenstam's Green Bond Framework **Dark Green.**

Included in the overall shading is an assessment of the governance structure of the green bond framework. CICERO Shades of Green finds the governance procedures in Wallenstam's framework to be Excellent.



GREEN BOND PRINCIPLES

Based on this review, this Framework is found in alignment with the principles.



°cicero Dark Green



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1 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the Wallenstam's green bond framework dated **April 2019.** This second opinion remains relevant to all green bonds issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the Wallenstam's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence with the Wallenstam.

Expressing concerns with 'shades of green'

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions of the bonds. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

CICERO Shades of Green Examples Dark green is allocated to projects and solutions that correspond to the long-term Wind energy projects with a strong vision of a low carbon and climate resilient future. Fossil-fueled technologies that governance structure that lock in long-term emissions do not qualify for financing. Ideally, exposure to transitional and physical climate risk is considered or mitigated Medium green is allocated to projects and solutions that represent steps towards the Bridging technologies such as long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in longplug-in hybrid buses term emissions do not qualify for financing. Physical and transition climate risks might be considered. **Light green** is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant Efficiency investments for fossil short-term GHG emission reductions, but need to be managed to avoid extension of fuel technologies where clean equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the alternatives are not available physical and transitional climate risk without appropriate strategies in place to protect them. Brown is allocated to projects and solutions that are in opposition to New infrastructure for coal the long-term vision of a low carbon and climate resilient future.

Sound governance and transparency processes facilitate delivery of Wallenstam's climate and environmental ambitions laid out in the framework. Hence, the governance aspects are carefully considered and reflected in the overall shading of the green bond framework. CICERO Green considers four factors in its review of an Wallenstam's governance processes: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent.



2 Brief description of Wallenstam's green bond framework and related policies

Wallenstam is a property company founded in 1944 listed on Nasdaq Stock Exchange in Stockholm. It owns around 220 properties worth approximately SEK 46 billion in Stockholm, Gothenburg and Uppsala. The company has around 250 employees and around 9,000 households and 1,000 commercial tenants as costumers. Commercial properties are found in the inner city of Gothenburg.

Environmental Strategies and Policies:

Wallenstam has reported its sustainability work since 2006 and has reported in accordance with the Global Reporting Initiative (GRI) since 2010. The company supports the UN's Global Compact initiative and the UN Agenda 2030 by stating in its business plan 2019-2023, that the company shall reduce its environmental impact every year, through initiatives within the focus areas energy, transports and resources.

Since 2013 Wallenstam has been producing sufficient electricity from its wind turbines to meet its own demand. The company has achieved a total reduction of 41 percent of carbon emissions during the period 2014-2017. According to the issuer, the company had 80.8 kWh/m² in energy consumption for heating purposes and 34.73 kWh/m² in electricity consumption for their buildings in 2018, including electricity for heat pumps. This is reduction compared to 106.6 kWh/m² in energy consumption for heating (climate-corrected) and 40,90 kWh/m² in 2013. The total energy use has been reduced by more than 4 percent per year on average the last five years. The issuer's carbon footprint mainly comes from district heating. For all new buildings the issuer aims for meeting the Miljöbyggnad silver level.

Use of proceeds:

According to the framework both adaptation and mitigation projects could be financed by the green proceeds. Also other environmental projects without specific climate change focus could be financed. However, a maximum of 15 percent of the proceeds could be allocated to such projects.

The net proceeds will not be allocated or linked to fossil fuel energy generation, nuclear energy generation, research and/or development within weapons and defense, potentially environmentally negative resource extraction (such as rare-earth elements or fossil fuels), gambling or tobacco.

Initially, the majority of the net proceeds will be allocated to existing projects and assets. The longer-term ambition is to allocate the majority of the net proceeds to new projects and assets. The proportion of net proceeds allocated to new projects and assets will be disclosed in the annual reporting. The majority of the proceeds will be allocated to wind projects and green buildings with approximately an equal share to each category. In comparison a smaller share will be allocated to energy efficiency and transportation projects.

Selection:

The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO Green typically looks at how climate and environmental considerations are considered when evaluating whether projects



can qualify for green bond funding. The broader the project categories, the more importance CICERO Green places on the governance process.

A group with representatives from Wallenstam's business units will identify and nominate projects and assets within the eligible categories to a business council consisting of members from the Senior Management at Wallenstam including CFO, Technical Director and the Sustainability Manager among others. The Sustainability Manager is supported by an environmental expert and consultants if needed. According to the green bond framework the practical and day-to-day sustainability work is conducted in all parts of the operations and all employees have a responsibility to implement and drive the sustainability work in their respective departments.

The council will evaluate the nominated projects and assets, and ensure compliance with the Green Terms. A consensus decision by the council is required to approve the Eligible Projects and Assets before any allocation of net proceeds. The projects and assets must also be compliant with applicable national laws and regulations, as well as policies and guidelines at Wallenstam. The decisions by the council will be documented and a list of all Eligible Projects and Assets will be kept by Wallenstam. The list will be used as a tool to determine if there is a current or expected capacity to issue a Green Bond.

Management of proceeds:

The net proceeds of any issue under the Green Bond Framework will be credited to a dedicated account (the "Green Account"). If a project or asset no longer qualifies for green proceeds, the funds will be either reallocated to projects and assets that meet the Green Terms or returned to the Green Account.

The Green Account ensures strict monitoring and tracking of the Use of Proceeds. The Treasury Department is responsible for the allocation of the net proceeds and for keeping records of use of proceeds.

If the Green Account has a positive balance the unallocated funds may be invested in Swedish government bills (including related entities).

Reporting:

Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green bond programs. Procedures for reporting and disclosure of green bond investments are also vital to build confidence that green bonds are contributing towards a sustainable and climate-friendly future, both among investors and in society.

Wallenstam will publish an annual green bond report on its website (www.wallenstam.se). The first such reporting is expected to take place in April 2020 and will be available in English. The reporting will contain a list of all eligible projects with relevant impact metrics such as emission reductions, environmental certifications for buildings, number of electric vehicles financed and renewable energy produced. The Swedish average grid factor will be used when calculating emission reductions from reduced electricity use. In 2018 this grid factor was 14g CO_2 equivalent per kWh produced.

3 Assessment of Wallenstam's green bond framework and policies

The framework and procedures for Wallenstam's green bond investments are assessed and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where Wallenstams should be aware of potential macro-level impacts of investment projects.

Overall shading

Based on the project category shadings detailed below, and consideration of environmental ambitions and governance structure reflected in Wallenstam's green bond framework, we rate the framework CICERO Dark Green.

Eligible projects under the Wallenstam's green bond framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental benefits. Through selection of project categories with clear environmental benefits, green bonds aim to provide investors with certainty that their investments deliver environmental returns as well as financial returns. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed and that the selection process should be "well defined".

Category	Eligible project types	Green Shading and some concerns	
Clean Transportation	Electric transportation vehicles as well as supportive infrastructure such as charging stations, bicycle garages, pedestrian walkways, bicycle lanes and other investments that support and emphasize the use of clean transportation solutions.	Dark green ✓ Plug-in hybrids do not qualify under the framework ✓ While electric modes of transportation are preferable to those that directly use fossil fuels, we should nevertheless be aware of the indirect GHG emissions stemming from the production and use, and strive to keep increasing electric vehicle's efficiency.	
Energy Efficiency	Could include, for instance, the installation of heat pumps, geothermal heating/cooling, energy-efficient lighting, IT-technology (monitoring, efficiency management and remote operation), energy efficient windows, battery storage or an upgraded ventilation system.	ighting, IT-technology (monitoring, management and remote operation), ficient windows, battery storage or an	

Only directly associated expenditure (e.g. material, installation and labour) is eligible for financing.

Wallenstam will ascertain the following:

- a) High estimated energy savings in the targeted area (minimum 20%).
- b) Minimize long term negative climate impact and potential rebound effects.
- c) Minimal negative climate impact from the technology used.

✓ The issuer has confirmed that proceeds will not be used for any equipment that is fossil-fueled.

Green buildings

Development, acquisition, major renovation or otherwise completed properties that have, or will, receive

- (i) a design stage certification,
- (ii) a post-construction certification or
- (iii) an in-use certification of Miljöbyggnad "Silver", or better, as well as 20% lower energy use than required by the applicable national building code (BBR).

Medium green

- ✓ Dark Green shading is in particular difficult to achieve in the building sector because buildings have a long lifetime. The highest shading level is reserved for the highest building standards such Zero-Energy buildings and passive houses. This framework's strict requirements on energy efficiency, in particular for renovation of buildings is, however, a clear strength.
- ✓ The issuer has confirmed that proceeds will not be used for any equipment that is fossil-fueled.
- ✓ The issuer has given examples of projects where flood risk measures and low carbon transportation solutions have been implemented. Screening for resiliency and clean transportation solutions are however not a requirement for green bond funding.
- Consider construction phase emissions.

Renewable energy



Investments in wind power or emission-free geothermal heating and cooling installations, as well as related infrastructure investments such as grid connections and electric substations, either on an existing building or as a stand-alone investment.

Dark Green

Consider biodiversity, landscape issues and construction phase emissions.

Table 1. Eligible project categories

Governance Assessment

Four aspects are studied when assessing the Wallenstam's governance procedures: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify eligible projects under the



framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent.

Wallenstam has in place a sound management and governance structure including ambitious targets on renewable energy and energy efficiency, as well as regular and transparent reporting about green bond project achievements to investors and the public. The overall assessment of the governance structure of Wallenstam gives it a rating of **Excellent**. Internal policies could gain from a more targeted focus on environmental issues such as the supplier code of conduct and business travel. E.g., Wallenstam is encouraged to actively target its carpool supplier to provide only environmentally friendly cars such as electric cars. A more systematic approach to climate risks is also recommended in order to provide investors with transparency on their climate risk exposure.

Strengths

Governance

Wallenstam has in place ambitious environmental policies and reporting. Wallenstam has reported its sustainability work since 2006 and has reported in accordance with the Global Reporting Initiative (GRI) since 2010. Since 2013 Wallenstam has been producing sufficient electricity from its wind turbines to meet its own demand. For all new buildings the issuer aims for meeting the Miljöbyggnad silver level. Properties can choose to be certified according to sustainability schemes, such as the Sweden-specific *Miljöbyggnad*. In addition to energy use, indoor climate and material use are assessed. Miljöbyggnad Silver requires 20 percent lower energy use than the Swedish building code provided that the building is heated by electricity. In order to reach the Paris Agreement well below 2°C climate goal, additional improvements must be made in this project category. The impact of energy efficiency improvements for different fuels depends on the sector under consideration. On a global level, we need to make the economy more energy efficient at a rate of 3.2% per year through 2040, which is double the rate in the period 2000-2016, in order to be in line with the SDS scenario." On average, Wallenstam has overachieved these targets with its more than 4 percent energy efficiency improvements the last five years in their building portfolio. The average energy use per square meter was in 2018 116 kWh (does not include tenants energy use).

Project Categories

In Sweden, the residential and service sectors account for almost 40% of the total energy use (Source: Swedish Energy Agency, "Energy in Sweden 2017"). Although heating-related GHG emissions have been dramatically reduced since the transition from oil-based heating to district heating during the 1990's, energy consumption in buildings still has potential to improve. The building regulations (BBR) apply only to new buildings. There are no legal requirements that regulate the energy consumption in existing buildings in Sweden. The energy efficiency requirements for existing buildings of 20 percent below the building code for new buildings, are ambitious and clearly a strength of the framework. This is in particular important because he highest potential to reduce energy consumption will result from improvements made to the existing building stock,

In order to reduce emissions from company business travels the issuer will invest in a pool of electric cars for its employees to visit the building and to meet suppliers. For shorter distances electric bikes will be available for the employees. For one of the company's new building projects in Gotenborg (1800 appartments) all new tenants will be offered one month of free public transportation in order to encourage public transportation use.

¹ https://www.iea.org/weo2017/



Weaknesses

No significant weaknesses perceived.

Pitfalls

In a low carbon 2050 perspective, the energy performance of buildings is expected to be improved, with passive house technology becoming mainstream and the energy performance of existing buildings greatly improved through refurbishments. According to the International Energy Agency (IEA), efficiency of buildings needs to improve by 30% by 2025 in order to reach the Paris Agreement well below 2°C climate goal². We assess if there is any screening for potential impacts from more extreme weather events, such as flooding. Flood risk for properties, is of particular concern in vulnerable geographic regions such as close to rivers, which can increase flood risks. Wallenstam has implemented several resiliency screening measures for some of its buildings such as for those close to the river in central Gothenburg. In flood risk areas essential technical functionalities such as rooms for operating the building's electricity networks are placed in a location less exposed to flood risk. The issuer does not however currently screen all their buildings portfolio for climate risks, and do not track construction phase emissions.

We also factor in if there have been any considerations around transportation solutions and environmental impacts in the construction phase of the building (building material and waste considerations). Dark Green shading is in particular difficult to achieve in the building sector because buildings have a long lifetime. Dark Green shading in the building sector should therefore conform to strict measures and is reserved for the highest building standards such as LEED Platinum, Zero-Energy buildings and passive houses.

² Source: <u>https://www.iea.org/tcep/</u>



Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	Green Bond Framework April 2019	This document comprises Wallenstams's Green Bonds Framework and how the company intends to use proceeds, how it plans to evaluate and select eligible projects, manages the proceeds and reports to investors.
2	Annual report 2017	Information about the company's activities and financial performance.
3	Annual report 2018	Information about the company's activities and financial performance.
4	Code of conduct	Guiding principles ensuring that high ethical standards are followed.
5	Guidelines for working conditions	Guidelines to ensure healthy working conditions at the work place.
6	Gender equality policy	Company policy highlighting that both genders are treated equally.
7	Guidelines for business travels	Mainly focusing on costs and reimbursement.
8	Whistleblower policy	Wallenstam aims at high level of trust and transparency within the organization in order to avoid irregular behavior.
9	Supplier code of Conduct	Guidelines to ensure that agreements the company enter into are of high legal quality.
10	Additional information	Miscellaneous document on sustainability and GRI-reporting



Appendix 2:About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University and the International Institute for Sustainable Development (IISD).









