

‘Second Opinion’
on
Atrium Ljungberg’s Green Bond
Framework

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Summary

Overall, Atrium Ljungberg's Green Bond Framework and supporting environmental policies promote a transition to low-carbon and climate-resilient growth. The ambition is to use the majority of the Green Bond proceeds to finance new projects as defined under the framework. Atrium Ljungberg takes a broad view of climate change impacts in its corporate environmental policies, incorporating stakeholders in discussions, and have an active attitude towards suppliers and sub-contractors with minimum standards that should be followed.

CICERO finds that Atrium Ljungberg's use and management of proceeds under the Green Bond Framework to be fully in accordance with the Green Bond Principles.

Eligible projects under the Green Bond Framework includes commercial and residential properties certified to a minimum of BREEAM Very Good or Miljöbyggnad Silver, respectively. Also, major renovation and energy efficiency projects leading to at least 35% energy reductions, renewable energy projects and infrastructure for electrical vehicles are covered.

Atrium Ljungberg's policies support regular and transparent updates to investors and the public. This includes impact reporting. The ambition is to include information about the energy use and the reduced carbon footprint on a portfolio basis of the funded Eligible Projects in relation to relevant reference values. CICERO is very positive to this reporting.

With regards to macro-level impacts of investments, Atrium Ljungberg's framework and policies include some consideration of impacts beyond the borders of the project or asset. Environmental impacts of the supply chain and measures to reduce these could be further elaborated.

Altogether we give Atrium Ljungberg's Green Bond Framework a Medium Green shading. A Dark Green shading would have required new buildings and renovation projects leading to close to passive houses.

1. Introduction and Background

As an independent, not-for-profit, research institute, CICERO (Center for International Climate and Environmental Research - Oslo) provides Second Opinions on institutions' framework and guidance for assessing and selecting eligible projects for green bond investments, and assesses the framework's robustness in meeting the institutions' environmental objectives.

CICERO 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 because of the fee structure.

CICERO has established the global Expert Network on Second Opinions (ENSO), a network of independent non-profit research institutions on climate change and other environmental issues, to broaden the technical expertise and regional experience for Second Opinions. CICERO works confidentially with other members in the network to enhance the links to climate and environmental science, building upon the CICERO model for Second Opinions. In addition to CICERO, ENSO members

currently include Basque Center for Climate Change (BC3), International Institute for Sustainable Development (IISD), Stockholm Environment Institute (SEI), and Tsinghua University's Institute of Energy, Environment and Economy. A more detailed description of CICERO can be found at the end of this report.

The CICERO-led ENSO provides second opinions on institutions' framework and guidance for assessing and selecting eligible projects for green bond investments, and assesses the framework's robustness in meeting the institutions' environmental objectives. The second opinion is based on documentation of rules and frameworks provided by the institution themselves (the client) and information gathered during meetings, teleconferences and email correspondence with the client. ENSO encourages the client to make this Second Opinion publically available. If any part of the Second Opinion is quoted, the full report must be made available.

This Second Opinion is based on the green bond framework presented to CICERO by the issuer. Any amendments or updates to the framework require that CICERO undertake a new assessment.

CICERO's Second Opinions are normally restricted to an evaluation of the mechanisms or framework for selecting eligible projects at a general level. CICERO does not validate or certify the climate effects of single projects, and thus, has no conflict of interest regarding single projects. CICERO is neither responsible for how the framework or mechanisms are implemented and followed up by the institutions, nor the outcome of investments in eligible projects.

CICERO takes a long-term view on activities that support a low-carbon climate resilient society. In some cases, activities or technologies that reduce near-term emissions result in net emissions or prolonged use of high-emitting infrastructure in the long-run. CICERO strives to avoid locking-in of emissions through careful infrastructure investments, and moving towards low- or zero-emitting infrastructure in the long run. Proceeds from green bonds may be used for financing, including refinancing, new or existing green projects as defined under the mechanisms or framework. CICERO assesses in this Second Opinion the likeliness that the issuer's categories of projects will meet expectations for a low carbon and climate resilient future.

Expressing concerns with 'shades of green'

CICERO's Second Opinions are graded dark green, medium green and light green, reflecting the climate and environmental ambitions of the bonds, the robustness of the governance structure and the reporting procedures of the Green Bond Framework. The project types that will be financed by the green bond primarily define the overall grading. However, governance and transparency considerations also factored in, as they can give an indication whether the institution that issues the green bond will be able to fulfil the climate and environmental ambitions of the investment framework. This covers topics such as environmental competencies in selection of projects to be financed by the green bond, veto power of environmental experts, auditing of use of proceeds, reporting, etc.

This Second Opinion will allocate a 'shade of green' to the green bond framework of Atrium Ljungberg:

- Dark green for projects and solutions that are realizations today of the long-term vision of a

low carbon and climate resilient future. Typically, this will entail zero emission solutions and governance structures that integrate environmental concerns into all activities.

- Medium green for projects and solutions that represent steps towards the long-term vision, but are not quite there yet.
- Light green for projects and solutions that are environmentally friendly but do not by themselves represent or is part of the long-term vision (e.g. energy efficiency in fossil based processes).

2. Brief Description of Atrium Ljungberg's Green Bond Framework and Rules and Procedures for Climate-Related Activities

This section is based on the Green Bond framework from Atrium Ljungberg and received supporting documentation as shown in Table 1 below.

Brief description of issuer: Atrium Ljungberg AB (publ) is one of Sweden's biggest listed property companies. The total letting area is around one million square meters, distributed among around fifty properties and valued at SEK 34 billion. The primary focus is on retail and offices, but also residential properties and cultural, service and educational facilities are included. The properties are in Stockholm, Uppsala, Malmö and Gothenburg. The largest owners are the Ljungberg family, the Stockholm Consumers Cooperative Society and the Holmström family.

Policies: Atrium Ljungberg has as a stated mission to be a leader in property development for sustainable cities in Sweden. Within 2021 all new buildings (with a few exceptions, i.e. some of those acquired the last two years) should be certified by BREEAM or Miljöbyggnad¹ to minimum levels "very good" or "silver" for commercial buildings and housing, respectively. Energy use per square meter should be reduced by at least 20% over the period 2014 – 2021². Support will be given to tenants to reduce and manage waste. By 2021, the proportion of green lease contracts is to be 50% of the contracted annual rent. Green lease contracts constitute a joint commitment by Atrium Ljungberg and the tenant to work together to achieve reduced environmental impact, including cutting energy consumption and GHG emissions. Atrium Ljungberg support and endorse the UN Global Compact.

Atrium Ljungberg is a member of Sweden Green Building Council and is also represented in the Swedish BREEAM committee and working actively in developing BREEAM in Sweden. The certification is an important tool for climate-related issues in construction of new buildings and for the management of existing buildings. In addition, Atrium Ljungberg works with different external stakeholders in most our projects, including municipalities, politicians and regulators. An important objective is to push for the development of sustainable cities. Issues such as logistics, transport flows, location, architecture, material, utilities etc. are all of importance to the total environmental/carbon/climate footprint of a project; both in the development, construction and in the use phase.

Atrium Ljungberg is measuring and managing its environmental impacts (Energy, water, CO₂ emissions (Scope 1, 2 and 3)). Through the CDP Atrium Ljungberg receives and overall score of B, somewhat

¹ Sweden Green Building Council's Environmental Building certification system.

² The reduction was 9.5% from 2014 to 2015.

above the average for those reporting and also the industry.

Definition Eligible Projects: Atrium Ljungberg's investment framework includes a Green Bond Framework, which is supported by the company's environmental vision, policies, and code of conduct. The documents that can impact the environmental soundness of the company's investments are described briefly in this section (see Table 1 for an overview of documents).

Atrium Ljungberg will use the net proceeds from the issuance of Green Bonds, in whole or in part, to finance a select pool of Eligible Projects. The ambition is to use most the Green Bond proceeds to finance new projects defined as projects that have been finalized within one year before the time of issuance of the Green Bond.

Eligible Assets fall within the following categories:

- **New and existing commercial and residential properties** that have or will have a certification from:
 - BREEAM or BREEAM In-use with a minimum certification level of at least *Very Good* or
 - Miljöbyggnad with a minimum certification level of at least *Silver*
- **Major renovation of residential and commercial properties** leading to a reduced energy use per year on a m² basis of at least 35 per cent.
- **Energy efficiency projects** leading to a reduction of energy use of at least a 35 per cent.
- **Renewable energy** (solar, geothermal and wind power).
- **Clean transportation infrastructure** for electric cars.

Energy reductions are usually independently verified by third party. For smaller projects, internal verifications are used. Atrium Ljungberg's Green Bonds will not finance fossil fuel generation projects.

Atrium Ljungberg's Green Bonds can be used to finance new Eligible Projects and to refinance Eligible Projects in accordance with the Green Bonds Framework.

Selection: Eligible Projects will be selected by Atrium Ljungberg's Green Bond Committee. The Green Bond Committee consists of representatives from the Treasury and the Sustainability Departments and takes decision in consensus (i.e. both departments have a veto). The representative for the Sustainability Department is very well qualified in sustainable building qualifications.

Management of proceeds: The net proceeds of any issue under the Green Bond Framework will be credited to a special account that will support Atrium Ljungberg's Eligible Projects. As long as the Green Bonds are outstanding and the Special Account has a positive balance, at the end of every fiscal quarter, funds will be deducted from the Special Account and added to Atrium Ljungberg's lending pool in an amount equal to all disbursements from that pool made during such quarter in respect of Eligible Projects. Until disbursement to Eligible Projects, the special account balance will be placed in liquidity reserves. If a Project or Asset no longer qualifies as Eligible, the funds will be reallocated to projects and assets that meet the eligibility criteria.

If the Special Account has a positive balance, the unallocated funds may be invested in short term

interest bearing securities according to Atrium Ljungberg’s policy for liquidity holdings.

Reporting and Accountability: To enable investors to follow the development and provide insight to prioritized areas, Atrium Ljungberg will provide an annual Green Bond Investor Letter to investors including 1) a list of projects financed 2) a selection of project examples and 3) a summary of Atrium Ljungberg’s Green Bond development. Atrium Ljungberg recognizes the importance of impact reporting. The ambition is to include information in the Investor Letter about the reduced carbon footprint on a portfolio basis of the funded Eligible Projects in relation to relevant reference values such as the current building standard or observed energy use prior to refurbishment.

The internal tracking method, the allocation of funds from the Green Bond proceeds and the Investor Letter will be reviewed by Atrium Ljungberg’s external auditor or a similar third party appointed by Atrium Ljungberg with the relevant expertise and experience. The Investor Letter and the opinion of the external auditor will be made publically available on Atrium Ljungberg’s web page.

Table 1 below lists the documents that formed the basis for this Second Opinion:

Table 1: Documents Reviewed

Doc. No.	Document name	Description
1	Atrium Ljungberg’s Green Bond Framework dated February 17, 2017	Green Bond Framework
2	Annual Report	Latest Annual Report from 2015. Web: http://al.se/press/finansiella-rapporter/
3	Sustainability reporting	Description of sustainability work. Contains quantified results related to e.g. energy intensities. Web: http://al.se/hallbarhet/hallbarhetsredovisning/
4	Sustainability policies	Brief summary of sustainability policies. Web: http://al.se/hallbarhet/hallbarhetsredovisning/
5	Atrium Ljungberg - Sammanställd plan för hållbarhet 2017	Key points from the sustainability plan. Includes names of responsible persons in the company.
6	Uppföljning certifierade fastigheter	List of certified properties.
7	Leverantörspolicy	Policy for subcontractors. Web: http://al.se/hallbarhet/vardegrund-och-policyer/
8	Kvalitets- och miljödirektivet	Quality and environmental directive
9	Codes of conduct	Web: http://al.se/hallbarhet/
10	Prices and evaluations: a) CDP 2016 Climate Change Atrium Ljungberg AB	Various documents testifying to Atrium Ljungberg’s environmental and social performance.

	<ul style="list-style-type: none"> b) CDP 2016 Programme Response c) Price BREEM Sweden Green Building Award 2016 Gränbystaden Hus E d) Sustainalytics Report "Real Estate: Two Steps Forward, One Step Back" which concludes that Atrium Ljungberg is one of the top three industry ESG performers. (Executive Summary) 	
11	Atrium Ljungberg - UN Global Compact	Global Compact certificate.
12	Intyg – 100% vattenkraftbaserade elleverenser - 2015	Certificate for 100% hydro-based power

3. Assessment of Atrium Ljungberg's Green Bond framework and environmental policies

Overall, Atrium Ljungberg's green bond framework and environmental policies provides a sound framework for climate-friendly investments. The framework and procedures for Atrium Ljungberg's environmental investments are assessed according to both the micro or project level impacts and the macro-level impacts in this section. Globally, the buildings sector consumes the most energy, accounting for over 40% of primary energy consumption in most International Energy Agency (IEA) member countries³. Energy efficiency improvements in buildings are thus important building blocks when aiming for the Paris target of 2°C or lower temperature increase this century.

The company's Environmental Policy highlights a broad approach to sustainable development, which includes reducing energy use, greenhouse gas emissions and waste, increasing the use of renewable energy, and supporting infrastructure for electric vehicles. Atrium Ljungberg also requires their suppliers to follow their directive on quality and environment (document 8 in table 1).

Use of proceeds: Eligible projects under the 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 certainty to investors that their investments deliver environmental returns as well as financial returns. The Green Bonds Principles (GBP)⁴, state that the "overall environmental profile" of a project should be assessed and that the selection process should be "well defined".

Atrium Ljungberg's Green Bonds can be used to finance Eligible Projects in accordance with the Green Bonds Framework. The Green Bond proceeds will finance existing properties, major renovation

³ <http://www.unep.org/sbci/AboutSBICI/Background.asp>

⁴ see: <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/green-bond-principles>

projects, and new projects and acquisitions with characteristics shown in Table 2.

Table 2 Eligible assets categories

Category	Eligible project types	Green Shading and some concerns
1. New and existing commercial and residential properties	<ul style="list-style-type: none"> • BREEAM or BREEAM In-use with a minimum certification level of at least Very Good. • Miljöbyggnad with a minimum certification level of at least Silver. 	<p>Medium Green</p> <ul style="list-style-type: none"> • Building criteria are considered adequate but do not reflect best available technology nor the highest level of standards possible.
2. Major renovation of residential and commercial properties	<ul style="list-style-type: none"> • Energy savings of the renovation will be at least 35 per cent. 	<p>Medium Green</p> <ul style="list-style-type: none"> • Note that this is not an absolute energy standard as it depends on the starting point.
3. Energy efficiency projects	<ul style="list-style-type: none"> • Reduction of energy use of at least a 35 per cent. 	<p>Medium Green</p> <ul style="list-style-type: none"> • Note that this is not an absolute energy standard as it depends on the starting point.
4. Renewable energy	<ul style="list-style-type: none"> • Solar, geothermal and wind power. 	<p>Dark Green</p> <ul style="list-style-type: none"> • Beware of heavy metal pollution associated with geothermal energy. • Beware of environmental issues in association with wind power.
5. Clean transportation infrastructure	<ul style="list-style-type: none"> • For electric cars 	<p>Dark Green</p>

Strengths

Process for Project evaluation and Selection

Eligible Projects will be selected by Atrium Ljungberg's Green Bond Committee. The Green Bond Committee consists of representatives from the Treasury and the Sustainability Departments. A decision to allocate net proceeds will require a consensus decision by the committee. No fossil power generation related project will be considered eligible.

Use and Management of Proceeds

CICERO finds that Atrium Ljungberg's use and management of proceeds under the Green Bond Framework (see section 2 above) to be fully in accordance with the Green Bond Principles.

Transparency, monitoring, reporting and verification

The Green Bond framework outlines a procedure for providing a detailed investor report. CICERO finds the reporting to be comprehensive and in particular welcome the emphasis on impact reporting. The selected indicators (energy use, carbon emissions and water use) are highly relevant for measuring

environmental impacts from the building sector. The reporting will provide investors with a solid information platform. CICERO will encourage Atrium Ljungberg to increase its use of independent third party verifications to increase transparency in this regard.

Weaknesses

We find no obvious weaknesses in Atrium Ljungberg's Green Bond framework.

Pitfalls

Energy efficiency improvements in buildings are important building blocks for reaching the 2-degree or lower climate change goal. The Green Bond framework would benefit from a clearer requirement that best environmental technology is used in eligible green bond building projects. 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.

Impacts beyond the project boundary

Due to the complexity of how socio-economic activities impact the climate, a specific project is likely to have interactions with the broader community beyond the project borders. These interactions may or may not be climate-friendly, and thus need to be considered with regards to the net impact of climate-related investments.

Rebound effects

Efficiency improvements may lead to rebound effects. When the cost of an activity is reduced, there will be incentives to do more of the same activity. From the project categories in Table 2 an example is improved energy efficiency, which in part may lead to more energy use. Atrium Ljungberg should be aware of such effects and possibly avoid Green Bond funding of projects where the risk of rebound effects is particularly high.

Appendix: About CICERO

CICERO (Center for International Climate and Environmental Research – Oslo) is Norway’s foremost institute for interdisciplinary climate Research. We deliver new insight that help solve the climate challenge and strengthen international climate cooperation.

We help to solve the climate problem and strengthen international climate cooperation by predicting and responding to society’s climate challenges through research and dissemination of a high international standard. Our researchers collaborate with top researchers from around the world, and publish their work in recognized international journals, reports, books and periodicals.

CICERO has garnered particular attention for its research on the effects of manmade emissions on the climate, society’s response to climate change, and the formulation of international agreements. We have played an active role in the IPCC since 1995. In recent years, we have also developed considerable expertise in climate financing and is currently a lead provider of Second Opinions on Green Bonds.

CICERO has a national role in promoting knowledge about climate change and is internationally recognized as a driving force for innovative climate communication. We are in constant dialogue about the responses to climate change with public and private decision makers, government administration and civil society.

See: <http://www.cicero.uio.no/en/posts/news/cicero-grades-climate-friendly-bonds-with-shades-of-green>