

‘Second Opinion’ on Stångåstaden’s Green Bond framework

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Summary

Overall, Stångåstaden's Green Bond framework and environmental policies provide a progressive, clear and sound framework for climate-friendly investments. The green bond framework lists eligible projects that are supportive of the objective of promoting a transition to low-carbon and climate-resilient growth and is supported by a strong governance structure in Stångåstaden. The main component of Stångåstaden's Green Bond framework is energy efficiency projects in the buildings sector. Energy efficiency improvements in buildings are important building blocks towards reaching the 2°C goal. Strategies and plans supporting low carbon and climate resilient growth in particular, and sustainable development in general, are well developed by Stångåstaden both at a general and a more detailed level. Procedures for monitoring and measurement of activities are well documented. Stångåstaden's policies support regular and transparent updates to investors and the public.

Based on an overall assessment of the project types that will be financed by the green bond, and governance and transparency considerations Stångåstaden's Green Bond Framework gets a medium green shading. To reach a Dark Green level, Stångåstaden would have to take off-site impacts of their projects more into account and also increase the classification level of their projects to Miljöbyggnad Gold (up from Silver).

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. The second opinion is based on documentation of rules and frameworks provided by the institutions themselves (the client) and information gathered during meetings, teleconferences and e-mail correspondence with the client.

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 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. CICERO 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.

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 in regard to single projects. CICERO is neither responsible for how the framework or mechanisms are implemented and followed up by the institutions, nor for the outcome of investments in eligible projects.

This note provides a Second Opinion of Stångåstaden's Green Bond Framework and policies for considering the environmental impacts of their projects. The aim is to assess Stångåstaden's Green Bond Framework as to its ability to support Stångåstaden's stated objective of low-carbon and climate resilient growth.

Climate change will have a significant impact on economic development, both from the perspectives of sustainable future development pathways and from the perspective of adapting to changing circumstances. The recently released Intergovernmental Panel on Climate Change report (IPCC, 2013) on the physical science of climate change highlighted the seriousness of human-induced climate effects. The report can be viewed as an immediate call to action on the challenge of reducing greenhouse gas (GHG) emissions. The 195 countries that have ratified the United Nations Framework Convention on Climate Change (UNFCCC) have agreed to reduce GHG emissions to limit global temperature increase to below 2°C above pre-industrial level. Reaching this target requires shifting development pathways towards low- or zero-emitting economies without delay, and avoiding locking-in high-emitting capital.

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 Second Opinions are graded dark green, medium green or light green, reflecting the climate and environmental ambitions of the bonds. The grading is based on a broad qualitative assessment of each project type according to what extent it contributes to building a low-carbon and climate resilient society.

This second opinion will allocate a 'shade of green' to the green bond framework of Stångåstaden:

- 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).
- Brown for projects that are irrelevant or in opposition to the long-term vision of a low carbon and climate resilient future.

The grading is primarily defined by the project type that will be financed by the green bond. However, governance and transparency considerations also factor 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.

2. Brief description of Stångåstaden's Green Bond framework and environmental policies

AB Stångåstaden is the largest housing company in Linköping and is owned by the municipality of Linköping, the fifth largest city in [Sweden](#), with 152,000 inhabitants in 2014. The company owns and manages approximately 18,500 apartments of which 4,200 of are student flats and which are managed by the subsidiary Studentbostäder i Linköping AB. Furthermore, in the company portfolio are 34 homes that are culturally listed and located in the area called Gamla Linköping; these are managed by the subsidiary Bryggargården AB. In total, Stångåstaden owns about 26 per cent of the homes in the municipality¹.

Stångåstaden's investment framework includes a Green Bond framework lending to Eligible Projects that target mitigation of climate change, including investments in low-carbon and clean technologies, such as energy efficiency and renewable energy programs.

Eligible Projects include:

- Certified new projects of residential and commercial properties with certification from:
 - Miljöbyggnad Silver or
 - Svanen

¹ <https://www.stangastaden.se/aboutstangastaden>

and at least 25% less energy use per m² and year than required by applicable codes and regulations (Boverkets byggregler, BBR²)

- New projects of residential and commercial properties with at least 25% less energy usage than required by applicable codes and regulations (Boverkets byggregler, BBR)
- Major renovation of residential and commercial properties leading to a reduced energy use per m² of at least 50%
- Renewable energy (wind power).

Stångåstaden's Green Bonds can be used to finance new projects and to refinance Eligible Projects. The ambition is to use the majority of the Green Bond proceeds to finance new projects (finalized within one year before the time of issuance).

This second opinion is based on documents received from Stångåstaden listed in Table 1, and conversations and discussions with representatives from the company.

Table 1 Documents received from Stångåstaden.

Ref. nr.	File name	Content
1.	Stångåstaden Green Bonds Framework	Brief memo on the Stångåstaden Green Bond framework
2.	Miljöpolicy	A statement of the environmental policy of Stångåstaden
3.	Miljömanual	A comprehensive description of how Stångåstaden follow up ISO 14001:2004
4.	Responsible Housing CSR Code of Conduct	A signed statement by Stångåstaden that they will follow the Responsible Housing CSR Code of Conduct developed by the European Responsible Housing Initiative
5.	Årsredovisning 2014 Del 2 Hållbarhet	Stångåstaden's 2014 Annual Report on Sustainability, presenting e.g. quantitative results on energy use and CO ₂ emissions.
6.	Stångåstaden Affärsplan	Stångåstaden's business plan for 2015 with quantitative targets for 2015, e.g. on energy savings.
7.	ISO 14001 Certificate 14-01-21	Renewed ISO 14001 certificate dated April 2014.

² <http://www.boverket.se/sv/lag--ratt/forfattningssamling/gallande/bbr---bfs-20116/>

8.	Arbetsätt för arbete med Sunda Hus Miljödata	A description of how to use Sund Hus environmental database for use of materials. Also describes the decision-tree for acceptance of use of various environmentally graded materials.
9.	Miljömärkningslicens, Svanen-Skanska-Tinnerbäcken	An environmental certificate (Miljömärkning Sverige) for Skanska AB Tinnerbäcken Södra.

The environmental policy of Stångåstaden, as stated in document 2, emphasis long-term sustainable development and steadily reduced environmental impacts of their housing projects. Furthermore, environmental considerations are to be included in all aspects of the company's operations, and it is clearly stated that requirements in laws and regulations are to be considered as minimum standards for the Stångåstaden.

The environmental manual (document 3) shows how the environmental policy is to be followed up in practice based on ISO 14001:2004. Stångåstaden was certified under ISO 14000 already in 2005, and was last re-certified in 2014 (document 7). Document 4 is a signed statement that Stångåstaden in addition will follow the Responsible Housing CSR Code of Conduct developed by the European Responsible Housing Initiative. In the sustainability part of Stångåstaden's annual report from 2014 (document 5) reports on several quantitative environmental targets and achievements are described. Thus:

- Environmental target 25-25: Energy per square meter to be reduced by 25% from 2011 level before 2025. It is noted that the fulfillment of this target will dependent on the behavior of those renting houses and flats. Thus, good communication with the tenants is essential.
- Stångåstaden has a well-developed collaboration with Linköping's University on energy efficiency projects.
- Stångåstaden has many solar panel sites installed, and is a partner in several wind power projects.
- Heating is largely from electricity and distributed heating. Energy use and CO₂ emissions are quantified and shows great improvements over the period 2011-2014. Less improvements is found in CO₂ emissions from the company's car fleet.
- Stångåstaden declares that they have a focus on supplier's social responsibility.

The environmental targets are further operationalized in the business plan for 2015 (document 6). Finally, document 8 shows how Stångåstaden selects and documents their use of materials by use of a comprehensive database (Sund Hus).

Selection of Eligible projects

The Treasury department together with the Sustainability department selects eligible projects for Stångåstaden's green bond.

Transparency

To enable investors to follow the development and provide insight to prioritised areas, Stångåstaden will provide an annual investor letter to investors including 1) a list of projects financed 2) a selection of project examples and 3) a summary of Stångåstaden's Green Bond development. The investor letter will be made publically available on Stångåstaden's web page.

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

A brief note on environmental certification systems for buildings

Several voluntary environmental certification systems provide some level of measurement of the environmental footprint of a building, including energy efficiency measures. One of the most widely used certification system is Leadership in Energy and Environmental Design (LEED), although many other country-specific systems exist, see LEED (2009a, b, c) for a description.

Another similar system originating in the United Kingdom is the BREEAM ratings. BREEAM SE (BREEAM, 2013) is the Swedish adaptation of this system. BREEAM also includes a comprehensive consideration of environmental and energy issues associated with buildings, including a category on land use and site selection. A rating is issued based on points earned, similar to LEED, with minimum requirements for some environmental issues.

The Miljöbyggnad certification system is specific to Sweden. The system focus on energy use, indoor climate and material in the buildings and involves a preliminary rating, which is then followed up and verified in the finished building. This system is more detailed than LEED or BREEAM SE in some aspects such as the calculation of energy efficiency, but do not cover subjects such as management, water use, waste handling, transport and siting impacts. See Miljöbyggnad (2012a, b, c) for elaboration on this framework and K. Johansson and A. Hedin (2011) and <http://www.sgbc.se/docman/presentationer/194-ws-a1-miljobyggnad-lindakjallen/file?Itemid=157> for a comparison of the different classification schemes.

The Nordic Swan scheme ("Svanen") resembles BREEAM but is focused on the buildings themselves and has a few more obligatory criteria than BREEAM. See Skoghøy (2012) for a comparison of the two classification schemes.

Governance capacity and structure

Stångåstaden documents through its environmental policy, the ISO 14000 classification and the environmental manual (including Sund Hus database system), together with the alignment with the

Responsible Housing CSR Code of Conduct, and its reporting and planning documents, that the company has a very solid governance capacity for selecting and carrying out projects under the green bond framework.

Eligible projects under the Green Bond framework

The eligible projects listed in the Green Bonds framework are supportive of Stångåstaden’s identified objective of promoting a transition to low-carbon and climate-resilient growth. However, the criteria could have been more ambitious, see Table 2.

Table 2. Likelihood of the meeting objectives of a low carbon and climate resilient future.

Eligible project types	Likelihood of meeting objective
<ul style="list-style-type: none"> Certified new projects of residential and commercial properties with certification from: <ul style="list-style-type: none"> - Miljöbyggnad Silver or - Svanen and at least 25% less energy use per m² and year than required by applicable codes and regulations (Boverkets byggregler, BBR³) 	<ul style="list-style-type: none"> Medium Green. The building criteria are good, but do not represent best available technologies (e.g. Miljöbyggnad Gold).
<ul style="list-style-type: none"> New projects of residential and commercial properties with at least 25% less energy usage than required by applicable codes and regulations (Boverkets byggregler, BBR) 	<ul style="list-style-type: none"> Medium Green. The building criteria are good, but do not represent best available technologies (e.g. Miljöbyggnad Gold).
<ul style="list-style-type: none"> Major renovation of residential and commercial properties leading to a reduced energy use per m² of at least 50% 	<ul style="list-style-type: none"> Medium Green. The building criteria are good, but may not realise a standard reflecting best available technologies.
<ul style="list-style-type: none"> Renewable energy (wind power) 	<ul style="list-style-type: none"> Dark Green, provided suitable siting is secured.

Transparency and monitoring, reporting and verification

The reporting and validation procedures are described well in the Green Bond framework and other documents. Stångåstaden’s policies support regular and transparent updates to investors and the public. Annual reports on green bond investments, a selection of project examples, and a summary of Stångåstaden’s Green Bond development will be made public on their website. There are no documented

³ <http://www.boverket.se/sv/lag--ratt/forfattningssamling/gallande/bbr---bfs-20116/>

plans for verifications of the projects achievements, besides the follow-up associated with the Miljöbyggnad classification scheme.

Strengths

- Stångåstaden's strategies and procedures are wide-spanning, comprehensive and reasonably ambitious with clear and quantified target for the long and shorter term.
- Stångåstaden is ISO 14000 certified.
- Stångåstaden has a comprehensive system for monitoring and assessing progress on an annual basis.
- The main component of Stångåstaden's Green Bond framework is energy efficiency projects in the buildings sector. The buildings sector consumes the most energy globally, accounting for over 40% of primary energy consumption in most International Energy Agency (IEA) member countries (IEA/UNDP, 2011). Energy efficiency improvements in buildings are thus important building blocks towards reaching the 2°C goal. Stångåstaden apply reasonably stringent criteria for both new buildings and in rehabilitation of existing buildings.
- Reporting and transparency is at a high level.

Weaknesses

- We find no great weaknesses in Stångåstaden's Green Bonds Framework. However, off-site impacts of projects and clearer targets for supplier's environmental performance could be wished for.

Pitfalls

Beyond the consideration of specific project types, it is important to evaluate the potential for macro-level impacts of climate activities.

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 environmentally friendly, and thus need to be considered with regards to the net environmental impacts of investments.

Stångåstaden relies on standards where impacts of the siting of projects are disregarded. This will require extra considerations.

Rebound effects

Another macro-level concern is the potential for rebound effects. This can occur when emission reductions result in a net increase in emitting activities. For example, energy efficiency improvements that lower

energy costs, inducing more energy use and partially offsetting energy savings. This can have the end result of lower reduction in emissions than anticipated. While these effects can never be entirely avoided, it is recommended to be aware of possible rebound effects and avoid investing in projects where the risk of such effects is particularly high. We cannot see that the risk for substantial rebound effects is high in the case of Stångåstaden's Green Bond framework.

References

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