

‘Second Opinion’ on Vellinge Municipality’s Green Bond Framework

25 October 2017

Summary

Overall, Vellinge Municipality's Green Bond Framework provides a clear and sound framework for climate-friendly investments. The framework lists eligible categories of 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.

Vellinge has in place ambitious climate and environmental goals. From 1990 to 2010 emissions in Vellinge were reduced by 40 percent, mainly due to reduced use of heating oil. Now transportation is the major contributor (55 percent) to carbon emissions and other pollutants. Vellinge's climate goals are to further reduce emissions by 20 percent in 2020 from 2010 levels. For the transportation fleet the aim is that 20 percent should run on renewable sources. The issuer also have in place energy efficiency goals and has implemented resilience measures to better protect against sea-level rise and extreme weather events.

The framework is in alignment with the Green bond Principles. Vellinge Municipality's Green Bonds can be used to finance new projects and to refinance projects, however the ambition is to use the majority of the proceeds to finance new projects. The framework explicitly excludes nuclear power and fossil fuel projects.

The issuer will include in its green bond reporting a list of all financed Green Projects with a brief description about them and their environmental impacts. CICERO is encouraged to see that the issuer will include in its reporting a list of all financed Green Projects with a brief description about them and their environmental impacts. The framework does not describe what type of indicators that will be reported, but the issuer has informed that the intention is to report impact indicators for energy efficiency (emission reductions), sea walls (cubic meters of natural material) and green buildings (energy use per square meter and certification if relevant).

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



°CICERO
Dark Green

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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 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 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. 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.

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 the outcome of investments in eligible projects.

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

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 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 and the robustness of the governance structure of the Green Bond

Framework. 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 Vellinge:

- **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 project types that will be financed by the green bond primarily define the overall grading. 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 Vellinge's Green Bond framework and rules and procedures for climate-related activities

Vellinge Municipality is a municipality in Skåne County with around 30 000 inhabitants in southern Sweden. Its seat is located in Vellinge. The present municipality is a result of the latest local government reform in Sweden.¹

From 1990 to 2010 emissions in Vellinge were reduced by 40 percent, mainly due to reduced use of heating oil. Now transportation is the major contributor (55 percent) to carbon emissions and other pollutants. Vellinge's climate goals are to further reduce emissions by 20 percent in 2020 from 2010 levels. Same year 50 percent of energy use should be based on renewable sources. For the transportation fleet the aim is that 20 percent should run on renewable sources. The issuer also has in place energy efficiency goals and has implemented resilience measures to better protect against sea-level rise and extreme weather events.

Definition:

Eligible green bond projects target both reduction of greenhouse gas emissions, including investments in energy efficiency, renewable energy and clean transportation and adapt operations to climate change, including investments in increased resilience. Vellinge Municipality's Green Bonds will not finance nuclear power or fossil fuel based projects. Vellinge Municipality's Green Bonds can be used to finance new projects and to refinance Green Projects, however the ambition is to use the majority of the proceeds to finance new projects.

Selection:

Green Projects will be selected in consensus by the Department of Finance and Economy and the Department of Environment in consultation with the implementing administrations and municipality-owned companies. Only projects with a high likelihood of resulting in positive, long-term net effects on the environment will be approved. Lifecycle assessment is not a requirement. If a project ceases to meet the criteria above, the project will be removed from the portfolio of Green Projects financed by Vellinge Municipality's Green Bonds.

Management of proceeds:

According to the framework and in line with the Green Bonds Principles, the green bond proceeds will be tracked by the issuer in a systematic manner. As long as Green Bonds are outstanding and proceeds from issues are available on a separate account, Vellinge Municipality shall, at the end of every fiscal quarter, deduct funds from the separate account in an amount equal to disbursements through Green Projects made during such quarter. Until disbursement to Green Projects, the separate account balance will be placed as part of the liquidity reserve.

Transparency and Accountability:

To enable investors to follow the development of the Vellinge Municipality's Green Projects the issuer will provide an annual investor letter. This letter will include a list of financed Green Projects with a brief description

¹ Wikipedia 18th September

about the project and their environmental impact and a summary of Vellinge Municipality's Green Bond development.

The annual report will be reviewed by an external auditor and an audit certificate will state that proceeds are invested in accordance with the Green Bonds Framework. The investor letter will be made publically available on Vellinge Municipality's web site. Furthermore, the principle of free access to public records enables both investors and potential investors generous insight into the operations of Vellinge municipality.

The Green Bonds Framework will be made publically available on Vellinge municipality's web site.

The table below lists the documents that formed the basis for this Second Opinion:

Document Number	Document Name	Description
1	Green Bond Framework (September 21 2017)	
2	Årsredovisning	Annual report
3	Finanspolicy	Financial policy document
4	Översiktsplan 2010 – med utblick mot 2050	Long term visions and policies on issues related to use of land, buildings and water resources.
5	Lokala miljömål	The municipality's own environmental goals and ambitions
6	Naturvårdsprogram	Nature conservation program including biodiversity
7	Energi- och klimatprogram med utblick mot 2020	Energy- and climate program towards 2020 aiming at reducing emissions through energy efficiency and more renewables.
8	Program för energieffektivisering 2010 – 2020	Program for energy efficiency towards 2020

9	Avfallsplan	Waste management program (2016)
10	VA-strategi och VA-plan	Drinking water and wastewater strategy, including some points on resilience.
11	Miljöbyggnad 3.0 https://www.sgbc.se/miljobyggnad-3-0-manualer-och-verktyg-m-m	Swedish certification system for green buildings
12	Green Building (SGBC) https://www.sgbc.se/miljobyggnad-3-0-manualer-och-verktyg-m-m	Swedish certification system for green buildings targeting energy efficiency
13	Sunda Hus Miljödata - Bedomningskriterier	Swedish certification system for green buildings avoiding hazardous chemicals
14	Höjda havsnivåer - Rapport från Sweco	Report from consultant on potential effect on flood prevention measures
15	Revidering av handlingsplan - Skydd mot förhöjda havsvattennivåer	Measures adopted to be prepared for 3 meters sea-level rise.
16	Rese- och mötespolicy	Policy targeting reduced environmental footprint from travels and meetings

Table 1. Documents reviewed

3 Assessment of Vellinge’s Green Bond framework and environmental policies

Overall, the Vellinge green bond framework provides a detailed and sound framework for climate-friendly investments.

The framework and procedures for Vellinge’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, whereas the weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where issuers should be aware of potential macro-level impacts of investment projects.

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) 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
Renewable energy	Wind power, solar power, geothermal energy and bioenergy from agricultural residues, forestry residues and other biological residues	Dark green <ul style="list-style-type: none"> ✓ Consider negative impacts on wildlife, nature. ✓ Consider lifecycle pollution. ✓ Consider emissions from construction phase and landscape issues and mass deposits. ✓ Observe complex impacts of some biofuels. Consider life cycle emissions, and avoid negative impacts on biodiversity.
Energy efficiency	Measures leading to an improvement of energy efficiency of at least 20 per cent.	Medium green

		<ul style="list-style-type: none"> ✓ According to the issuer only energy efficiency projects in buildings would qualify under this category. ✓ Be aware of rebound effects and lock-in of obsolete technologies
Waste Management	Recycling and re-use, rehabilitation of contaminated land).	<p>Dark green</p> <ul style="list-style-type: none"> ✓ According to the issuer no waste incinerators or fossil fuel waste transportation will be financed under the framework. ✓ Be aware of waste collection system based on vehicles running on fossil fuels.
Sustainable, fossil-free transport systems and transport solutions of people and goods.		<p>Dark green</p> <ul style="list-style-type: none"> ✓ According to the issuer no vehicles will be financed, only infrastructure for clean transport solutions such as charging stations
Water and waste water management		<p>Dark green</p> <ul style="list-style-type: none"> ✓ Consider waste recycling rates
Stormwater management	Creation of a cloudburst action plan.	Dark green
Climate adaptation	Measures in buildings, infrastructure and sensitive habitats, measures against high sea levels.	Dark green
Green commercial and residential buildings	1. New and existing properties with an energy use at least 25 per cent lower per m ² Atemp and year than the construction requirements of	<p>Medium green</p> <ul style="list-style-type: none"> ✓ Building criteria are good, but not the best.

Boverket (the National Board of Housing, Building and Planning) and preferably with a certificate from Miljöbyggnad (silver or above) or Green Building according to Sweden Green Building Council (SGBC).	✓ In a low carbon 2050 perspective the energy performance of buildings is expected to be improved, with passive and plus house technologies becoming mainstream and the energy performance of existing buildings greatly improved through refurbishments.
2. New built commercial and residential buildings shall, in addition to meeting criteria 1 above, also at a minimum adhere to the regulations of “Sunda Hus Miljödata” (Healthy Houses Environmental data), category A or B.	
3. Major renovations leading to a reduced energy use of at least a 25 per cent per m ² Atemp and year.	

Table 2. Eligible project categories

Strengths

Vellinge Municipality has in place ambitious climate policies both on mitigation but also on adaptation, and has taken important steps in order to achieve them. CICERO takes a long-term view on climate change, and thus recommends excluding projects that support prolonged use of fossil fuel-based infrastructure that will contribute to GHGs in the long run. Vellinge has explicitly stated in their green bond framework that they will not finance nuclear power or fossil fuel based projects.

The backbone of the governance structure is the Vellinge’s Green Bond Framework. The Bond framework includes a comprehensive list of project categories that are important for low-carbon and climate change resilient growth.

Vellinge has a good structure for approval of projects in place that ensure environmental integrity. Green Projects will be selected in consensus by the Department of Finance and Economy and the Department of Environment in consultation with the implementing administrations and municipality-owned companies. Selection procedures could however be identified clearer. The framework would gain from some more information about the methodology that will be used in order to assess the long-term net effects on the environment.

Impact reporting is an important tool to enhance transparency in regard to the projects economic risk from climate change and the environmental effectiveness of the projects. Thus, it is important to verify that projects

perform as intended with respect to mitigation of greenhouse gas emissions and enhancing climate change resilience, as well as avoiding significant unwanted external effects.

CICERO is encouraged to see that the issuer will include in its reporting a list of all financed Green Projects with a brief description about them and their environmental impacts. The framework does not describe what type of indicators that will be reported, but the issuer has informed that the intention is to report impact indicators for energy efficiency (emission reductions), sea walls (cubic meters of natural material) and green buildings (energy use per square meter and certification level if relevant). The Green Bond framework outlines a procedure for reporting. The principle of free access to public records applies. These enable all stakeholders to have broad insight.

Weaknesses

We find no obvious weaknesses in Vellinge Municipality's Green Bond framework.

Pitfalls

Energy efficiency improvements in buildings are important building blocks for reaching the 2 degree climate change goal. Vellinge applies criteria for both new buildings and in renovation of existing buildings with energy efficiency requirements over and above status quo. The Green Bond framework would however 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 (energy efficiency). Vellinge Municipality 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 Research is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international climate cooperation. We collaborate with top researchers from around the world and publish in recognized international journals, reports, books and periodicals. CICERO has garnered particular attention for its work on the effects of manmade emissions on the climate and the formulation of international agreements and has played an active role in the UN's IPCC since 1995.

CICERO is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO received a Green Bond Award from Climate Bonds Initiative for being the biggest second opinion provider in 2016 and from Environmental Finance for being the best external review provider (2017).

CICERO Second Opinions are graded dark green, medium green and light green to offer investors better insight in the environmental quality of green bonds. The shading, introduced in spring 2015, reflects the climate and environmental ambitions of the bonds in the light of the transition to a low-carbon society.

CICERO works with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions. Led by CICERO, ENSO is comprised of trusted 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). ENSO operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

cicero.oslo.no/greenbonds

