

‘Second Opinion’ on Västra Götalandsregionen’s Green Bond Framework

30. juni 2017

Summary

The Västra Götalandsregionen (VGR) green bond framework provides a clear and sound framework for climate-friendly investments. The framework lists eligible categories of assets 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.

Eligible projects include new and existing certificated green building projects (Miljöbyggnad Silver), energy efficient buildings, as well as major renovations with significant energy efficiency gains. The issuer has informed us that the ambition is to finance a majority of Miljöbyggnad Gold projects; however, some projects that fall short of the Gold level may also be financed. The issuer has further informed us that the actual energy usage of their new buildings is often on par with passive house standards. CICERO is encouraged by the steps taken by Västra Götalandsregionen (VGR) towards the long-term low-carbon vision, but the framework falls short of financing the necessary solutions for a low carbon and climate resilient future. In a low carbon 2050 perspective, the energy performance of buildings is expected to be improved, with passive and plus house technologies becoming mainstream. We note that Miljöbyggnad Silver is not the highest certification level available and that the energy efficiency requirements do not guarantee passive house performance.

Västra Götalandsregionen (VGR) has specified that the green bonds will not finance fossil fuel or nuclear power generation projects and informed us that it is unlikely that biofuels or related infrastructure are included.

The green bond framework outlines transparent and comprehensive annual reporting. CICERO welcomes the inclusion of impact reporting on certification level and energy performance. CICERO also considers it a strength that both use of proceeds and impact reporting will be subject to external verification.

CICERO finds the Västra Götalandsregionen (VGR) green bond framework to be in accordance with the green bond principles. Based on an overall assessment of the eligible projects, as well as governance and transparency considerations, Västra Götalandsregionen (VGR)'s Green Bond Framework is rated CICERO Medium Green.



°CICERO

Medium 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 the Västra Götalandsregionen (VGR) Green Bonds Framework and policies for considering the environmental impacts of their projects. The aim is to assess the Green Bonds Framework as to its ability to support Västra Götalandsregionen (VGR)'s 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 Västra Götalandsregionen (VGR):

- **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 fulfill the climate and environmental ambitions of the investment framework.

2 Brief Description of Västra Götalandsregionen (VGR) 's Green Bond Framework and rules and procedures for climate-related activities

Västra Götalandsregionen (VGR) is one of 21 regional councils in Sweden. The county has 1.6 million residents, making it Sweden's second most populous region. The regional council has operating costs of about 40 billion SEK and around 50,000 employees. Among Västra Götalandsregionen (VGR)'s responsibilities are public transit, public healthcare, culture and regional development.

Policies:

The territory Västra Götaland's goal is to be a fossil fuel independent region by 2030. The organization Västra Götalandsregionen (VGR)'s goal is to be independent of fossil fuels by 2020¹. To support these goals, the regional council has an environmental plan with seven focus areas: transport, energy, products and waste, food, chemicals, pharmaceutical drugs and medicals gasses. Within each focus area, Västra Götalandsregionen (VGR) has set clear goals for 2030 and targets for 2020. Further, specific measures are defined and responsible agencies designated.

Current policies mandate all new buildings to be Miljöbyggnad certified and have a low environmental footprint. The 2030 goal is to halve energy usage in own buildings compared to a 1995 baseline. This goal is equivalent to 137 kWh/m² annually and includes existing buildings. Västfastigheter's guidelines for energy usage in new buildings stipulates that the average energy use for new buildings should be 60 kWh/m² annually. It is worth noting that Västra Götalandsregionen (VGR) includes energy usage from building operations in calculations and therefore the energy footprint is not directly comparable across buildings. For example, hospital operations are more energy intensive than office buildings.

VGR outlines a stepwise approach to the goal of halving energy usage. By 2020, energy usage in own facilities should be below 170 kWh/m² annually. Also, the use of fossil fuels is to be phased out, and steps should be taken to improve efficiency in rented spaces. The environmental plan defines yearly reporting with appropriate metrics. Västra Götalandsregionen (VGR) has already made good progress towards the 2020 energy goals, and exceeded the two energy-related targets set for 2016. As of 2016, Västra Götalandsregionen (VGR)'s energy usage in own buildings is 179 kWh/m² annually, and they have reached 95 percent renewable heating and cooling in these facilities. To further reduce fossil fuel dependence, two heat production facilities are being converted away from fossil fuel in 2017. VGR also has goals for the deployment of renewables, among them to produce 3GW per year from solar.

¹ According to the Environmental Plan

Västfastigheter, Västra Götalandsregionen (VGR)'s property manager, has a well-developed environmental plan that further details the implementation of VGR's sustainability goals. Among these is to Miljöbyggnad certify all projects above 100 million SEK. The ambition is to certify all new buildings above 70 million SEK at the Gold level and all renovations above 100 million SEK at the Silver level. VGR has informed us that this cutoff was chosen to cover "whole building" projects.

Definition:

Proceeds from the Västra Götalandsregionen (VGR) bond will fund green building projects that promote the transition to low carbon and climate- resilient growth as defined by Västra Götalandsregionen (VGR). Eligible projects include new and existing certificated green building projects (Miljöbyggnad Silver), energy efficient buildings, as well as major renovations with significant energy efficiency gains. Västra Götalandsregionen (VGR) has specified that the green bonds will not finance fossil fuel or nuclear power generation projects and informed us that it is unlikely that biofuels will be included.

All eligible projects must be in line with Västra Götalandsregionen (VGR)'s sustainability and environmental policies, as well as follow EU Law, Sweden's environmental legislation (Miljöbalken) and policies. Environmental impacts are taken into account in preliminary studies conducted before construction. Västra Götalandsregionen (VGR) has guidelines specifying environmental requirements in the construction process. These guidelines include stipulations that all projects should include environmental competence, environmentally sound, and energy efficient construction processes, including resource-efficient waste and wastewater management.

The green bond proceeds can be used to finance both new and existing projects. The issuer has informed us that initially only new projects will be funded. However, the framework allows for refinancing which may become relevant at a later point.

Selection:

Eligible projects will be selected by the Finance Department and the Environmental Department. Projects can be initiated by either department based on the Västra Götalandsregionen (VGR) investment plan. The representative from the environmental department will have the right to veto any project, as will the representative from the finance department. Meetings will be held on an as-needed basis.

Management of proceeds:

In line with the Green Bond Principles², an amount equal to the net proceeds of the issue of the green bonds will be credited to a special account. For the duration of the green bonds and as long as the account has a positive balance, funds will be disbursed quarterly³. The positive balance of the special account will be placed in liquidity reserves. Västra Götalandsregionen (VGR) policies mandate that all financial investments, including liquidity

² Green Bond Principles are found at <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/green-bond-principles/>

³ An amount equal to the disbursements to eligible projects that quarter will be moved from the special account to Västra Götalandsregionen (VGR)'s lending pool.

reserves, follow environmental, social and governance (ESG) criteria, including the avoidance of companies whose main activities are fossil fuel extraction.

Transparency and Accountability:

Västra Götalandsregionen (VGR) is committed to transparency and will annually prepare a public investor letter. The letter will include:

- Projects financed
- Project total costs and share of green bond financing
- Impact reporting for all projects (level of certification and energy performance)
- Share of financing to new projects and refinancing respectively

An external auditor or other qualified third party will verify the internal tracking method, the allocation of funds from the Green Bond proceeds and the Investor Letter. The auditor opinion will be made public on the Västra Götalandsregionen (VGR) website along with the annual letter.

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

Document Number	Document Name	Description
1	Västra Götalandsregionen (VGR) – Green Bonds Framework	The green bond framework
2	Budget Västra Götalandsregionen (VGR) 2017	Annual budget, reviewed p. 4,5,17
3	Västra Götaland 2020	Strategy for growth and development in Västra Götalandsregionen (VGR), reviewed p. 6, 24-27
4	Miljöplan 2017-2020	Västra Götalandsregionen (VGR) Environmental plan
5	Miljöpolicy	Environmental policy for the Västra Götalandsregionen (VGR) organization
6	Hållbarhetsstrategi Västfastigheter	Västfastigheter (Västra Götalandsregionen (VGR)'s property manager) Sustainability strategy

7	Inköpspolicy	Procurement policy, reviewed p. 4
8	Social ansvarstagande i upphandling	Rapport on social responsibility in procurement, including the Code of Conduct for Suppliers
9	Sveriges regioner och landstingsuppförandekod för leverantörer	Sweden's regional and county councils code of conduct for suppliers
10	Riktlinje för finansförvaltning	Guidelines for treasury management in Västra Götalandsregionen (VGR), reviewed p. 6
11	Rese- och mötespolicy Västra Götalandsregionen (VGR)	Travel and meeting policy, reviewed p. 2
12	Cirkulärt mode och hållbara miljöer 2017-2020	Program for sustainable textiles and circular fashion
13	Hållbar energi och bioinnovation 2017-2020	Program for renewable energy and bio-innovation
14	Hållbara transporter 2017-2020	Program for sustainable transportation
15	Livsmedel och gröna näringar 2017-2020	Program for sustainable agriculture, food systems and nutrition
16	Hållbara maritima näringar 2016-2019	Action plan for sustainable maritime industries
17	Förslaget ”Strategiska vägval för ett gott liv i en fossiloberoende region 2030”	Suggestions for strategic direction for «a good life in a fossil fuel free region 2030”

18	Klimatväxling § 230	Protocol from the Regional Council meeting Oct. 6 th 2015, approval of the Västra Götalandsregionen (VGR) Climate Exchange. Reviewed p. 6
19	Fairtradediplomerad region	Diploma confirming Västra Götalandsregionen (VGR) status as Fairtrade region
20	Årsredovisning Västra Götalandsregionen (VGR) 2016	Annual report Västra Götalandsregionen (VGR), reviewed p. 8-9, 25-27
21	Miljöredovisning 2016 – Transporter	Environmental reports – summary for target area transport (met 1 of 2 targets, lagging on 1)
22	Miljöredovisning 2016 - Energi	Environmental reports – summary for target area energy (met both targets)
23	Miljöredovisning 2016 - Produkter och avfall	Environmental reports – summary for target area products and waste (met 3 of 4 targets, lagging on 1)
24	Miljöredovisning 2016 - Livsmedel	Environmental reports – summary for target area food (met target)
24	Miljöredovisning 2016 - Kemikalier	Environmental reports – summary for target area chemicals (met target)
26	Miljöredovisning 2016 - Läkemedel	Environmental reports – summary for target area pharmaceuticals (met 2 of 3 targets, lagging on 1)
27	Miljöredovisning 2016 - Lustgas	Environmental reports – summary for target area Nitrous oxide (met target)
28	Årsredovisning Västfastigheter 2016	Environmental report 2016 for Västfastigheter (Västra Götalandsregionen (VGR)'s property manager)

29	Så hållbara är landstingen	Article from Aktuell Hållbarhet ranking Swedish Regions by sustainability, Västra Götalandsregionen (VGR) was awarded second place in this ranking
30	Miljöfordonsdiagnos 2016	Environmental audit of Swedish counties by the organization Miljöfordon Syd, Västra Götalandsregionen (VGR) tied for first place in this ranking
31	Pris solceller i Skövde	Article from Svensk Solenergi, Västfastigheter (Västra Götalandsregionen (VGR)'s property manager) was awarded a prize in 2016 for their solar installation at Skövde
32	Tekniska krav och riktlinjer. Energi - Riktlinje avseende energikrav för nybyggnad	Technical specifications and guidelines for energy usage in new buildings.

Table 1. Documents reviewed

3 Assessment of Västra Götalandsregionen (VGR) Green Bond framework and environmental policies

Overall, the Västra Götalandsregionen (VGR) green bond framework provides a sound framework for climate-friendly investments. The framework and procedures for Västra Götalandsregionen (VGR)'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
Green building	• Certified Green Building, Miljöbyggnad Silver and up • New or existing properties with an energy input, on an m² and annual basis, that is at least 25 percent lower than required by applicable regulations (Boverkets byggregler, BBR) • Major renovation leading to a reduced energy use, on an m² and annual basis, of at least 30 percent.	Medium Green ✓ Miljöbyggnad covers a broad set of issues which are important to sustainable development. However, this certification alone does not ensure passive or plus housing. ✓ Passive or plus house technologies should become mainstream and the energy performance of existing buildings greatly improved. Västra Götalandsregionen (VGR) is taking steps towards this long-term vision but falls short of financing the necessary low carbon solutions. Miljöbyggnad Silver is not the strictest available certification level, and while the energy efficiency targets are good, they fall short of the very best. ✓ Construction projects can have potential negative local environmental impacts. Västra

Göteborgsregionen (VGR) has solid policies in place to mitigate these impacts.

Table 2. Eligible project category

Strengths

Västra Götalandsregionen (VGR)'s green bond framework is anchored in ambitious climate goals and practical environmental plans. The framework supports the achievement of strategic targets for Västra Götalandsregionen (VGR) property manager and regional council.

Use of proceeds

In a low-carbon 2050 perspective, the energy performance of buildings is of particular importance. The green bond framework specifies Miljöbyggnad Silver for new buildings, which does include an energy efficiency requirement⁴. Västra Götalandsregionen (VGR) has a goal to certify all new construction projects over 100 million SEK and renovation over 70 million SEK at the Miljöbyggnad Gold level. The issuer has informed us that the ambition is to finance majority gold level projects. However, some projects that fall short of the gold level will also be financed. Further, as the property manager, Västfastigheter's guidelines for energy usage in new buildings stipulate that the average energy use for new buildings should be 60 kWh/m² annually, inclusive of operations. The issuer has informed us that the actual energy usage of their new buildings is usually on par with passive house standards. CICERO is encouraged by the issuer's goals and guidelines concerning energy usage, and the commitment to report actual energy use for funded projects.

CICERO is also encouraged by the steps taken to manage local environmental impacts during the construction phase. Västra Götalandsregionen (VGR) has a general supplier policy and code of conduct that supports environmentally and socially sound purchasing. Västfastigheter has supplemented this with a strategy for managing local environmental impacts of construction projects and improving the environmental soundness of materials purchased. In addition, Västfastigheter has a strategy for reducing hazardous materials in the construction process. To assist the selection of building materials, an assessment tool (Byggvarubedömningen) is used. The tool uses life cycle criteria to evaluate construction materials. Materials are assessed by seven environmental categories and given a final grading of recommended, acceptable, or to be avoided. VGR has informed us that they give preference to the recommended materials. Materials categorized as to be avoided are not to be used unless a special dispensation is given. Västra Götalandsregionen (VGR) also has intentions of phasing out PVC and antibacterial silver.

Västra Götalandsregionen (VGR) and Västfastigheter both have strategies to advance employee knowledge on sustainability issues. CICERO views this as a benefit, particularly as appropriate building operations and management (O&M) are key to building energy performance in the long run.

⁴ Residential buildings must perform at 80 or 70 percent of BBR requirements depending on building type. See Miljöbyggnad standard (only in Swedish) <https://www.sgbc.se/docman/miljobyggnad-2017/898-miljobyggnad-3-0-nyproduktion-170510/file>

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 greenhouse gas emissions in the long run. Västra Götalandsregionen (VGR)'s exclusion of fossil fuel projects is a clear strength in this perspective.

Process for Project Evaluation and Selection

Projects are selected in consensus by the Finance Department and the Environmental Department. The inclusion of the environmental department ensures necessary environmental competence. Selection by consensus gives the representative from the environmental department the right to veto any project. CICERO finds the process for selecting eligible projects to be good and in accordance with the Green Bond Principles.

Management of Proceeds

CICERO finds the management of proceeds to be in accordance with the Green Bond Principles. CICERO considers it a strength that unallocated proceeds will be invested according to ESG criteria specifically excluding companies whose main activities are fossil fuel extraction.

Reporting

Västra Götalandsregionen (VGR)'s current environmental reporting is transparent and comprehensive; inclusion of key environmental metrics in the annual report is encouraging and lays a solid foundation for green bond reporting.

The green bond framework outlines transparent and comprehensive annual reporting. CICERO welcomes the inclusion of impact reporting on certification level and energy performance. CICERO also considers it a strength that both use of proceeds and impact reporting will be subject to external verification.

Weaknesses

There are no obvious weaknesses in Västra Götalandsregionen (VGR)'s green bond framework

Pitfalls

The transition to a low-carbon and climate-resilient future requires passive or plus housing. Västra Götalandsregionen (VGR) has taken steps towards this goal; however, the green bond framework falls short of financing the necessary low carbon solutions. The Green Bond framework would benefit from a clearer requirement that best environmental technology is used in eligible green bond building projects. The framework specifies Miljöbyggnad Silver for new buildings, which includes an energy efficiency requirement, but falls short of guaranteeing a climate-friendly building. Likewise, energy efficiency retrofits are green investments; however, without strict absolute energy targets, there is a risk of lock-in of less energy efficient solutions. Project selection will be important to ensure environmental integrity, and CICERO is encouraged by Västra Götalandsregionen (VGR)'s aggressive energy use guidelines for new buildings.

Västra Götalandsregionen (VGR) currently has no comprehensive climate change adaptation strategy. While individual measures are being taken at hospitals to reduce the risk of overflow damages, no structured approach to reducing climate risk is in place. Västra Götalandsregionen (VGR) has informed us that the regional council has the mandate to begin development of an adaptation strategy. CICERO encourages the issuer to integrate adaptation measures into building strategy and individual construction projects.

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, which may in part lead to more energy use. Västra Götalandsregionen (VGR) should be aware of such effects and possibly avoid Green Bond funding of projects where the risk of rebound effects is particularly high.

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. CICERO is encouraged that Västra Götalandsregionen (VGR) conducts an environmental impact review prior to construction projects.

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.

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