

Second Opinion on Kommuninvest’s Green Bond framework

Contents

- Summary 2
- 1. Introduction and background..... 2
 - Expressing concerns with ‘shades of green’ 4
- 2. Brief description of Kommuninvest’s Green Bond framework and environmental policies 4
 - 2.1 Background and documentation..... 4
 - 2.2 Green Bond Framework 5
 - 2.3 Transparency and reporting..... 6
- 3. Assessment of Kommuninvest’s Green Bond framework and environmental policies 6
 - 3.1 Environmental policies 7
 - 3.2 Eligible projects under the Green Bond framework 7
 - 3.3 Strengths 9
 - 3.4 Weaknesses..... 9
 - 3.5 Pitfalls 9
 - 3.5.1 Impacts beyond the project boundary..... 12
 - 3.5.2 Rebound effects 12
 - 3.6 Transparency and monitoring, reporting and verification..... 12
- References..... 12

Summary

Overall, Kommuninvest'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 Kommuninvest.

Kommuninvest puts strong emphasis on environmental competence in their selection of eligible loans. This is of particular importance since the framework covers many eligible project categories, some with a broad scope. A maximum of 30 per cent of the investments will finance environmental projects in other areas than climate change. The framework does not explicitly exclude fossil fuel investment but will require the use of impact analysis and impact reporting for such investments. Kommuninvest's policies support regular and transparent updates, including on examples of project achievements 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, Kommuninvest's Green Bond Framework gets a Medium Green shading. To reach a Dark Green level, Kommuninvest would need a more specified ambition for some of the project categories in particular for green buildings, waste management and environmental management. Impact and lifecycle analysis could also be required to a larger extent.

CICERO finalized a second opinion on Kommuninvest's Green Bonds framework 28 May 2015. This second opinion incorporates some changes made by the issuer to their eligible project categories since then.

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 encourages the client to make this Second Opinion publicly available. If any part of the Second Opinion is quoted, the full report must be made available.

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'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. CICERO finalized a second opinion on Kommuninvest's Green Bonds framework 28th of May 2015. This second opinion incorporates some changes made to the eligible project categories since then.

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

Climate change will have significant impacts on economic development, both from the perspectives of sustainable future development pathways and from the perspective of adapting to changing circumstances. 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 the second opinion projects likeliness of meeting 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 Kommuninvest:

- 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 Kommuninvest’s Green Bond framework and environmental policies

2.1 Background and documentation

Kommuninvest (formally Kommuninvest Cooperative Society and Kommuninvest i Sverige AB) was founded in 1986 by nine Swedish municipalities and Örebro County Council with the aim of improving the conditions in the market for local government loan financing. Only municipalities and county councils that are members of Kommuninvest Cooperative Society as well as companies controlled by the members may borrow from Kommuninvest. By 2015 there are 290 members of which 10 are county councils. Thus, of Sweden’s municipalities, 96% were members in 2015. Municipal investments

in Sweden are currently driven by a need for renewal of infrastructure first established in the 1970s, a strong population growth in Sweden and a rapid urbanization.

Kommuninvest's vision clarifies that the operations shall finance the development of the local and regional sectors, as well as investments in a sound and sustainable society. Work in the area of sustainability builds on three cornerstones: building of knowledge, assessment work and environmental consideration (Kommuninvest Annual Report 2014).

This second opinion on Kommuninvest's Green Bond Framework is based on the documents listed in Table 1.

Table 1. Document overview

Document reference no.	Title	Comments
1	Kommuninvest - Green Bond Framework. January 2015	Memo on Green Bond framework
2	Regeringens skrivelse 2013/14:145 - Svenska miljömål visar vägen!	A comprehensive description of the government's environmental targets
3	Miljöbalken http://www.notisum.se/rnp/sls/lag/19980808.HTM	The Environmental law of Sweden
4	Miljömål: http://www.miljomal.se/	An internet portal on environmental targets
5	Miljömålen: Årlig uppföljning av Sveriges miljö kvalitetsmål och etappmål 2014 – Naturvårdsverket	Annual report on environmental quality targets in Sweden.
6	Regional Utveckling och Samverkan i miljömålssystemet (RUS) – Guide till lokalt arbete med miljömål	A guide for local work on achieving the environmental quality targets
7	Kommuninvest Annual Report 2014	Annual report from Kommuninvest 2014
8	Kommuninvest - Kommunala investeringar 2014	An overview of investments by municipalities in 2014

2.2 Green Bond Framework

Investments in Green Bonds will be transferred to a special budget account to support Kommuninvest's lending to eligible projects. Eligible loans are defined as loans that in whole or part promote transition to low-carbon and climate resilient growth. Eligible projects include mitigation

projects as well as adaptation projects, and up to 30 % of investments may be focused on sustainability and environmental targets not directly related to climate.

Eligible projects will, on an ongoing basis, be identified and verified by the Environmental Departments in Kommuninvest's member municipalities and selected by the Treasury Departments in Kommuninvest's member municipalities. Kommuninvest has informed us that verified in this context means that when applying for a green loan from Kommuninvest, the environmental functions at the applicant municipality or county council/region confirms that each such project is in line with the Eligible Loans as stated in Kommuninvest's Green Bonds Framework and other communication, as well as with applicable environmental policies (EU, national and local). Eligible loans to these projects will, on an on-going basis, be pre-approved by Kommuninvest's Lending Department and, on a quarterly basis, be reviewed and finally approved by consensus vote in the Green Bonds Environmental Committee.

The Green Bonds Environmental Committee consists of representatives from the Environmental Departments of two or more member municipalities, environmental experts from other relevant public sector organisations/academia/NGOs, and from Kommuninvest's Management.

2.3 Transparency and reporting

To enable investors to follow the development and provide insight to prioritized areas, Kommuninvest will provide an annual investor letter to investors including a list of green loans exceeding SEK 25 million, a selection of project examples, and a summary of Kommuninvest's Green Bond development.

Both new financing and re-financing will be eligible under the Green Bonds framework. The ambition is however to use the majority of the Green Bonds proceeds to new projects (financed within nine months before the time of issuance and forward). The actual distribution between new financing and re-financing will be available to investors in the annual investor letter.

The investor letter will be made publicly available on Kommuninvest's web page. Furthermore, the principle of free access to public records is applied. This enables all stakeholders broad insight.

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

In the following the framework and procedures for selecting projects for Green Bond funding are assessed, specifically with regard to strengths, weaknesses and potential pitfalls.

3.1 Environmental policies

The relevant policy documents guiding Kommuninvest’s lending to climate friendly investments are Kommuninvest’s Green Bonds Framework, EU and national legislation including the 16 Swedish environmental quality objectives and environmental policies on the municipality and county council level.

The procedure for selecting Green Bond projects is briefly outlined in the memo “Green Bond framework” from January 2016 (Document no. 1 in Table 1). This procedure is transparent, fairly standardized, as well as elaborate in terms of the roles of different actors and their responsibilities.

Kommuninvest has as a stated ambition to contribute to sustainable social development. In addition to adhering to relevant environmental laws and regulation, the company also nurtures the commitment and awareness of employees on environmental issues and train them in ‘natural environmental thinking’ (see Document 7, Table 2). In addition, the company seeks to minimize its own burden on the environment.

3.2 Eligible projects under the Green Bond framework

Table 2 lists the eligible loan categories for Green Bond funding with an assessment of the likelihood of meeting the objectives of low carbon and climate resilient growth.

Table 2. Eligible project types for Green Bond funding and likelihood of meeting objective

Primary objective	Eligible project categories	Likelihood of meeting objectives – concerns
Renewable energy (production and supply)	Wind	Dark green - Consider negative impacts on wildlife, nature.
	Solar	Dark green - Consider lifecycle pollution.
	Hydro	Dark green - Consider negative impacts on wildlife and nature. Consider emissions from construction phase and landscape issues and mass deposits. Care should be taken with large hydro projects due to scale of environmental impacts.
	Bioenergy and biogas from waste	Medium green - Observe complex impacts of some biofuels. Consider life cycle emissions, and avoid negative impacts on biodiversity.
	Geothermal	Dark green - Potential for heavy metal pollution.
	Conversion from fossil to renewable energy	Dark green - Observe complex impacts of some biofuels (see above)

Energy efficiency	Energy efficiency in energy systems – such as district heating/cooling, energy recovery and storage and smart grids)	Dark green, but be aware of possible rebound effects.
Public transport	Trains, underground, trams, buses and infrastructure supporting public transportation and other sustainable transportation (such as infrastructure for bicycles, pedestrians, electric vehicles and logistical solutions with reduced environmental impact for transportation of people and cargo)	Medium green. Potential for emission reduction depends on area planning and degree of urbanization, introduction of new vehicle technologies for passenger and goods transportation, and fuel types. Should avoid fossil fuels for bus transport.
Waste management	Reducing amount and harmful impact of waste, increasing re-use and recovery of materials and energy	Medium green. Good practice waste management should recycle resources and reduce methane emissions.
Green buildings	<p>a) New buildings with at least 25 per cent less energy usage per m² and year than required by applicable regulations (Swedish Building Regulations, BBR 21) and preferably a minimum certification of either 1) LEED gold, 2) BREEAM very good 3) Environmental Building (Miljöbyggnad) silver, 4) Svanen, 5) EU Green Building or 6) Feb-12 (Mini-energy building).</p> <p>b) Energy efficiency measures in existing buildings, activities and operations leading to at least 25 per cent less energy use.</p> <p>c) Major renovation of buildings leading to a reduced energy use per m² and year of at least 35 per cent or compliance with applicable regulations for new buildings (Swedish Building Regulations BBR 21)</p>	<p>Medium green. The building criteria are good, but may not realise a standard reflecting best available technologies. This is important for long-term sustainable development. Also of importance for climate change resilience.</p> <p>LEED and other certifications include aspects important to long-term sustainable development, e.g. site selection and consideration of brownfields, urban density and planning, and access to public transportation.</p>
Water management	Water infrastructure, waste water management and cleaning facilities	Dark green. Important given climate change scenarios and higher frequency of extreme weather conditions. Limited effect on mitigation.
Adaptation measures	In buildings, infrastructure and sensitive surroundings	Dark green.
Environmental management (max 30 per cent)	Nature conservation, biodiversity, sustainable agriculture and improving eco-systems services	Medium green. Good for environment as a whole. Very broad category. No climate mitigation objective.

3.3 Strengths

The Green Bond framework includes a comprehensive list of project categories that are important for low-carbon and climate change resilient growth. Selection and decision procedures and responsibilities are clearly mapped out. Even reasonably “safe” Green Bond project types may, however, lead to unwanted side effects under certain conditions. The best insurance against negative external effects is a selection procedure delimiting eligible projects to the likely best-performing project categories with respect to climate mitigation and enhanced climate change resilience; thus supporting sustainable development in general. This requirement is largely fulfilled in the case of Kommuninvest. Eligible projects have to be approved by consensus vote in the Environmental Committee. It’s a clear strength that Kommuninvest in their selection of eligible loans puts strong emphasis on environmental competence. This is of particular importance since the framework covers many eligible project categories, some with a broad scope.

3.4 Weaknesses

We find no obvious weaknesses in Kommuninvest’s Green Bond framework.

3.5 Pitfalls

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. Kommuninvest has not in their Green Bonds framework explicitly excluded fossil fuel investments. Kommuninvest’s process however appears to mitigate much of the risk of funding a significant level of projects that include fossil fuels elements. Still, there is a residual risk that the definitions of the eligible project categories can lead to financing assets that include elements of fossil-fuel based technologies. This can in turn delay the transition to more climate-friendly technologies.

Kommuninvest has informed us that they will encourage the use of impact analysis (ex-ante) and impact reporting (ex-post) to the largest extent possible, for instance through lifecycle analysis. This will be emphasised in Kommuninvest’s communication with its members. It is in the interest of members who apply for/receive green loans from Kommuninvest to get publicity and recognition for their green investments. One way for Kommuninvest to promote the use of impact analysis and impact reporting is to clarify that such projects will be prioritized. It will however, not be a general requirement that municipalities and county councils use impact reporting to get a green loan from Kommuninvest.

Kommuninvest has informed us that impact analysis and impact reporting will be especially relevant in projects partly encompassing fossil energy to a non-negligible extent (over 10-20%) such as bioenergy, waste and public transportation. There is a potential risk that these green bond categories (bioenergy, waste and public transportation) could theoretically include projects that may not represent significant improvements over the status quo. It will be the role of the Green Bonds Environmental Committee to make sure that such projects, as stated in the Green Bond framework, may be approved given that they have significant positive climate and/or environmental impact.

Assessing sustainability in the transport sector is not straightforward. The largest amount of carbon savings come from switching from inefficient modes of transport (e.g. private cars) to mass transit. However, where projects are aimed at like-for-like replacement of transport infrastructure, any improvements in environmental performance depend on the fuel type and efficiency. In the EU more and more public transportation is run on alternative fuels. We therefore have some concerns that also fossil fuel public transport projects should be considered eligible.

Kommuninvest has informed us that fossil fuel buses will not be eligible under the framework unless the applicant municipality or county council can show that the investment 1) reduces total GHG by promoting public over private transportation more for the same cost than a solution based on green fuel-only buses or 2) includes a plan to use a substantial portion of green fuels (for example biodiesel) in these buses and 3) that the above will be reported based on an impact analysis.

The use of biomass and waste for energy purposes further represents a potential pitfall when it comes to supporting a low carbon and climate resilient future. Kommuninvest has informed us that peat will not be treated as bioenergy. Waste incineration with energy recovery is a sound environmental and climate friendly option to divert waste away from landfilling. Waste incineration is best combined with ambitious recycling policies. When the capacity of waste incineration is high it might be an incentive to burn waste for energy purposes instead of material recycling. Hence there is a particular need to continue to improve in this regard, in particular to recycle more fossil fuel waste such as plastics into new materials.

The buildings sector accounts 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. Kommuninvest applies reasonably stringent criteria for both new buildings and in rehabilitation of existing buildings with additional energy efficiency requirements over and above those enforced by applicable regulations. In addition voluntary environmental certifications such as LEED gold, BREEAM very good, Miljöbyggnad silver and

the Nordic Swan is preferred. These 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 use 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. Feby-12 is a Swedish certification system that defines Zero energy buildings and Passive houses in Sweden. These houses use half the energy that is required by the Swedish building regulations (Boverkets byggregler, BBR). Zero energy buildings in addition produce the same amount of energy that they use. Feby-12 also defines Mini-energy buildings. The energy requirements for such buildings are in between Passive houses and the Swedish building regulations.

The Green Bond framework would benefit from a clearer requirement that best environmental technology is used in eligible green bond building projects. Voluntary environmental certifications could be required and the classification level of projects could be increased to Miljöbyggnad Gold (up from Silver).

Kommuninvest is largely reliant on data provided by projects that are seeking financing for their investments. It is therefore recommended that in the absence of compelling evidence of strong

environmental performance Kommuninvest will exercise caution in project selection to mitigate the risk of investment in projects with questionable “green” credentials.

3.5.1 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.

3.5.2 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. Another example is public support schemes for renewable energy that increases energy supply, leads to a reduced energy price and thus more energy consumption. Such effects can however never be entirely avoided. Kommuninvest should be aware of such effects and possibly avoid Green Bond funding of projects where the risk of rebound effects is particularly high.

3.6 Transparency and monitoring, reporting and verification

It is important to be able 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. The Green Bond framework outlines a procedure for reporting. According to Kommuninvest Green Bond procedure, an overview of Green Bond projects, more detailed information about some project examples, and a summary of the Green Bond development will be available through an annual investor letter, to be made publicly available at the Kommuninvest’s web page. Furthermore, the principle of free access to public records is applied. This enables all stakeholders broad insight.

However, environmental indicators are not specified, and there is no information about external reviewers of Green Bond financed projects.

References

Feby-12. FEBY 12 “Kravspecifikation för nollenergihus, passivhus och minienergihus”. See: <http://www.nollhus.se/feby-12>

BREEAM (2013). “BREEAM SE English Manual for New Construction and Refurbishment”, Version 1.0,

Swedish Green Building Council.

IEA/UNDP (2011). Modernizing Building Energy Codes, International Energy Agency and United Nations Development Programme.

IPCC (2013). Climate Change 2013: The Physical Science Basis, Fifth Assessment Report, Intergovernmental Panel on Climate Change.

Johansson, K. and A. Hedin (2011): Guld, silver eller brons? Miljöbyggnad i praktisk tillämpning. Examensarbete/Institutionen för Bygg- och miljöteknik, Chalmers Tekniska Högskola 2011:20. See: <http://publications.lib.chalmers.se/records/fulltext/144610.pdf>

LEED (2009a). LEED 2009 for Core and Shell Development, US Green Building Council.

LEED (2009b). LEED 2009 for Existing Buildings Operation and Maintenance, US Green Building Council.

LEED (2009c). LEED 2009 for New Construction and Major Renovations, US Green Building Council.

Miljöbyggnad (2012a). Miljöbyggnad Certification Process, Swedish Green Building Council.

Miljöbyggnad (2012b). Miljöbyggnad Existing Buildings, Manual 2.1, Swedish Green Building Council.

Miljöbyggnad (2012c). Miljöbyggnad New Buildings, Manual 2.1, Swedish Green Building Council.

Skoghøy, J. C. (2012): Energy-regulations, the Nordic Swan and BREEAM, Master thesis from UMB.

See:

http://brage.bibsys.no/xmlui/bitstream/handle/11250/188851/Masteroppgave_Jens%20Christian%20Skogh%C3%B8y.pdf?sequence=1