



# Kommuninvest Green Bond Second Opinion

May 25, 2021

**Kommuninvest 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 regions that are members of Kommuninvest Cooperative Society as well as companies controlled by the members may borrow from Kommuninvest. As of May 2021, the cooperation comprised 292 out of Sweden's 310 local governments and accounted for nearly 60 percent of their external financing; 278 municipalities and 14 regions were members of Kommuninvest Cooperative Society.

**The majority of the proceeds is expected to go to the green building category.**

The 2020 proportion of Kommuninvest's green portfolio for green buildings was 60%, followed by renewable energy with 18.5%, water management (14.9%) and clean transportation (5.2%). Additional eligible projects categories also include energy efficiency in energy systems and operations, waste management, climate change adaptation and environmental management. Under this updated framework, Kommuninvest has raised its energy efficiency requirements for new and existing buildings to 20% lower than required by applicable regulation. For buildings with construction start from January 1, 2022, the issuer requires life-cycle-oriented climate measures and life cycle assessments, which is in line with Sweden's upcoming new climate declaration for buildings regulation. However, life cycle assessments for projects in the other green categories are not required.

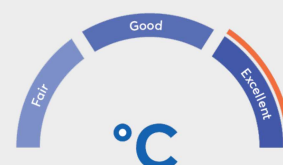
**The issuer has strong and well-established reporting and selection processes in place and includes external experts in the selection committee.** This is of particular importance since the framework covers many eligible project categories, some with a broad scope. However, the reporting is not externally reviewed, and the issuer would benefit from reporting in line with the TCFD recommendations and including climate risk scenario analysis. The framework does not explicitly exclude all fossil fuel elements and can, e.g., include waste-to-energy projects with up to 20% fossil fuel (incl. plastics) for use in, e.g., district heating. The issuer has informed us that in the vast majority of cases, the fossil fuel involvement in investment projects that have such content is less than 10%. Projects with fossil fuel involvement will require the use of impact analysis and impact reporting for all such investments.

Based on the overall assessment of the project types that will be financed by the green finance, governance, and transparency considerations, Kommuninvest's green bond framework receives a **CICERO Medium Green** shading and a governance score of **Excellent**. The issuer could further improve the framework by establishing more ambitious targets at the company level, a wider application of life cycle assessment, implementing a systematic approach on climate risks assessments and reporting according to TCFD.

## SHADES OF GREEN

Based on our review, we rate the Kommuninvest's green bond framework **CICERO Medium Green**.

Included in the overall shading is an assessment of the governance structure of the green bond framework. CICERO Shades of Green finds the governance procedures in Kommuninvest's framework to be **Excellent**.



## GREEN BOND PRINCIPLES

Based on this review, this Framework is found in alignment with the principles.





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# 1 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the client's framework dated May 25, 2021. This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Green 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.

The second opinion is based on a review of the framework and documentation of the client's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

## Expressing concerns with 'Shades of Green'

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

### CICERO Shades of Green



**Dark green** is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Ideally, exposure to transitional and physical climate risk is considered or mitigated.



**Medium green** is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Physical and transition climate risks might be considered.



**Light green** is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant short-term GHG emission reductions, but need to be managed to avoid extension of equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the physical and transitional climate risk without appropriate strategies in place to protect them.

### Examples



Wind energy projects with a strong governance structure that integrates environmental concerns



Bridging technologies such as plug-in hybrid buses



Efficiency investments for fossil fuel technologies where clean alternatives are not available

Sound governance and transparency processes facilitate delivery of the client's climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green bond are carefully considered and reflected in the overall shading. CICERO Green considers four factors in its review of the client's governance processes: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.



## 2 Brief description of Kommuninvest's green bond framework and related policies

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 regions that are members of Kommuninvest Cooperative Society as well as companies controlled by the members may borrow from Kommuninvest. Municipal investments in Sweden are currently driven by a strong population growth, rapid urbanization and a need for renewal of infrastructure first established in the 1970s.

As of May 2021, the cooperation comprised 292 out of Sweden's 310 local governments and accounted for nearly 60 percent of their external financing; 278 municipalities and 14 regions were members of Kommuninvest Cooperative Society.

Kommuninvest is the largest lender to the Swedish local government sector. All bonds and other debt market instruments issued by Kommuninvest are explicitly guaranteed by the members of Kommuninvest Cooperative Society, the sole owner of the credit market company and issuing entity Kommuninvest i Sverige AB (publ).

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. According to its sustainability policy, Kommuninvest shall take into consideration economic, social and environmental sustainability in its entire business, both with respect to direct impact and indirect impact (Sustainability Policy dated 25 September 2020).

### Environmental Strategies and Policies

Kommuninvest has a well-established sustainability policy in place and has a "Green Loans" programme to stimulate the local government sector's environmental and climate work. These loans include a premium to provide additional incentives. 11.7% of Kommuninvest's lending is through green loans. The company further informed us that it aims to reach 15-20% green share of lending in the future.

Kommuninvest has reduced its own CO<sub>2</sub> emission continuously over the past years with 119tCO<sub>2</sub> from its buildings in 2020. The climate impact from Kommuninvest's own electricity consumption is calculated applying an emissions factor for electricity of 315g CO<sub>2</sub>e/kWh, a factor that is significantly higher than the average for the Swedish grid. As of 2020, Kommuninvest exclusively purchases renewable electricity. Emissions from business travels have decreased substantially as well with 2020 particularly lowered due to the impact of the pandemic (43tCO<sub>2</sub> in 2020, 225tCO<sub>2</sub> in 2019). The company further informed us that more than 90 percent of its historical direct emissions are related to air travel, and that the company has initiated a process to establish its own emissions reductions targets in 2020. However, due to the pandemic, the process has been paused.

According to the issuer, Kommuninvest is engaged with the Swedish Association of Public Sector Housing and the IVL Environmental Research Institute since 2019, as it is seeking to foster increased use of life cycle analysis of climate impact in property construction. Kommuninvest has also introduced new LCA requirements for buildings as of January 1, 2021, in line with the project "Climate requirements at a reasonable cost" (Swe: Klimatkrav till rimlig kostnad) that has resulted in the publication in 2020 of publicly available guidelines for integrating LCA climate requirements in public procurement for new building construction, and of





recommendations and digital tools to foster increased use of climate calculations pre- and post-property construction. The company is also a coordinator of the Nordic cooperation on impact reporting resulting in bringing the Nordic Position Paper on Green Bonds Impact Reporting to market. The company also mentioned being a member of Viable Cities, a strategic innovation programme focused on innovation for climate-neutral and sustainable cities by 2030, supported in a joint initiative by the Swedish Innovation Agency (Vinnova), the Swedish Energy Agency and Formas. As a member of Viable Cities, Kommuninvest informed us it participates in the steering group to develop climate investment plan templates for cities striving to be carbon-neutral by 2030. However, the company is not yet reporting in accordance with the TCFD recommendations, nor uses climate scenarios at the moment.

The company mentioned that it expects negligible financial risk on own operations, but that climate-related financial impact may affect clients/owners to a varying degree. The company also aims at better integrating ESG in the dialogue and the follow-up with members. Regarding suppliers, Kommuninvest informed us that it has established a sustainable IT plan and engages in circularity efforts with regards to office equipment.

Kommuninvest began extending green Eligible Loans to clients in June 2015 and issues green bonds since March 2016 to finance its green lending. According to Kommuninvest's 2020 Green Bond report, at 31 December 2020, Kommuninvest had disbursed a total of SEK 51.9 (40.3) billion, equivalent to USD 6.3/EUR 5.2 billion, in Green Loans to investment projects aligned with its Green Bond Framework. The green project portfolio was mainly comprised of green buildings (59.9%), renewable energy (18.5%), water management (14.9%) and clean transportation (5.2%). Green bonds constitute a share of 8.9% of Kommuninvest's funding. Furthermore, Kommuninvest informed us that over the past 5 years, the distribution of the share of proceeds among the different projects categories has been relatively stable, albeit with a slightly increased share for water management and clean transportation.

### Use of proceeds

"Eligible Loans" means a selected pool of loans from Kommuninvest which are financing, in whole or in part, Eligible Projects in member municipalities/regions that primarily promote the transition to low carbon and climate resilient growth. Loans can also be arranged to municipal companies, foundations and unions that are eligible to apply for financing from Kommuninvest. Eligible Projects shall be part of the systematic environmental work in the applicant municipality/region and be related to the national or regional environmental goals and targets. The projects fall in the three categories:

- (a) mitigation of climate change, including investments in low-carbon and clean technologies, such as public transportation and renewable energy programmes and projects,
- (b) adaptation to climate change, including investments in climate-resilience, or
- (c) address environmental issues in other areas than climate change (max 30% of issued volume).

Kommuninvest has in their updated framework adjusted the project category eligibility requirements related to sustainable buildings and renewable energy. Moreover, the updated framework reflects Kommuninvest's current policy on certain projects encompassing fossil fuel use. Finally, the framework contains updates in respect of the management of green bond proceeds and reporting.

In respect of sustainable buildings, the framework has been updated to reflect changes to national building regulations, developments in certification systems and international regulation, and Kommuninvest's own requirements for new construction. In particular, the criteria for residential multi-family buildings, non-residential buildings and major renovations have changed to reflect the wording of Swedish Building Regulations, BBR 29. As such, energy performance is now determined by a primary energy demand (PED) using new weighting factors for energy use per square meter and year. PED for residential multi-family buildings must now be at least 20 per



cent below the requirements in the applicable national regulation, a change from 15 per cent in the previous framework and in line with Kommuninvest's energy efficiency requirement for non-residential buildings. Kommuninvest is also promoting a more life cycle-orientated approach, particularly in the construction phase, but also in the pre- and post-property construction. As such, any applications received after 1 January 2022 must show that life-cycle orientated climate measures are implemented in the project and that the building's climate impact during the construction phase has been calculated. Furthermore, according to the company, the applicant must demonstrate that concrete measures are undertaken to minimize climate impact during the construction phase, such as by choosing a wood construction or using concrete with less CO<sub>2</sub> impact.

Regarding renewable energy, the framework has been updated to clarify that, in respect of hydropower, new financing is only allowed for hydropower plants with less than 10 MW production capacity. New financing can also be granted to upgrade existing hydropower plants with a production capacity of more than 10 MW if it does not increase the size of the reservoir or if allows the existing plant and reservoir to be used for pumped-storage hydropower. Refinancing of existing hydropower is allowed.

The updated framework also contains Kommuninvest's position in respect of projects relating to production and distribution of bioenergy, typically in connection with district heating, and projects concerning energy efficiency in energy systems and operations which encompass fossil fuels. If the fossil fuel content exceeds 10% (including peat), a plan to rapidly reduce (according to the issuer likely within a period of maximum 5 years) the fossil fuel content to less than 10% will be a condition of approval. This will not apply to the fossil fuel component of waste, if there is support for the recovery of energy via waste leading to reduced CO<sub>2</sub> emissions, not only by replacing fossil fuels but also via the reduction of methane leakage from landfills. In such cases, the maximum fossil energy component is 20 per cent.

The company further informed us that production, distribution and use of biogas in transport is eligible, but that any biorefinery application would be analysed in relation to the EU Taxonomy. At the moment, no biorefineries have been financed according to the issuer.

Furthermore, the 2021 updated framework clarifies that loans can also be made to municipal companies, foundations and unions that are otherwise eligible for financing from Kommuninvest.

## Selection

The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the more importance CICERO Green places on the governance process.

Eligible Projects will, on an ongoing basis, be:

1. **identified** and **verified** by the environmental functions in Kommuninvest's members;
2. **selected** by the finance departments of Kommuninvest's members and sent to Kommuninvest for initial appraisal together with completed application forms and appropriate documentation in accordance with Kommuninvest's instructions.

and at least on a quarterly basis, be:



3. **reviewed** and **approved** by consensus decision by Kommuninvest's Environmental Committee for Green Financing as regards compliance with the selection criteria for Eligible Projects. At least three external members shall be part of the committee and must be present for decisions.

Kommuninvest's Environmental Committee for Green Financing ("Environmental Committee") reviews and approves climate and environmental related investments that are eligible to be financed under the Green Bonds Framework. The Committee shall have at least three external members, consisting of representatives of the environmental unit from at least two member municipalities/regions, as well as other relevant organizations in the public sector and/or academia (e.g., SALAR, the Swedish Association of Local Authorities and Regions), and in addition representatives from Kommuninvest's management, sustainability function and lending departments. Kommuninvest appoints and dismisses members of the Environmental Committee. The issuer informed us that the appointment of members is a decision of Kommuninvest and anchored with executive management. To date, there has been only one replacement of a committee member, and four of the five members have been on the committee since inception.

The responsibilities of the Environmental Committee include to:

- Review and approve Green Loan applications,<sup>1</sup>
- Assist Kommuninvest's members with expertise and advice in the ongoing work, for example regarding method recommendations, method development and impact reporting,
- Review and approve the impact reporting that Kommuninvest produces annually for investors and other stakeholders,
- Decide on any disqualification of previously granted Green Loans, and
- Approve the Green Bonds Framework, and its future updates including deciding on the criteria for Eligible Project Categories, eligibility regarding fossil shares and climate-related physical risk considerations.

The issuer further informed us that it has excluded projects in the past years (less than 10 projects in 5 years history), where projects include a large amount of fossil fuel components, or when the energy efficiency criteria is not met. The issuer also mentioned that life cycle assessments are a formal requirement for buildings from 2022, however, the issuer does not currently have such requirements for other project categories.

### Management of proceeds

CICERO Green finds the management of proceeds of Kommuninvest to be in accordance with the Green Bond Principles. The proceeds from Green Bonds issuance will be tracked by Kommuninvest in accordance with its internal instructions and will be verified by an external audit firm. For conservative purposes, and in accordance with Kommuninvest internal instructions, Kommuninvest will manage the total proceeds with an ambition for aggregate proceeds from all outstanding Green Bond Proceeds not to exceed outstanding Eligible Loans. In the event that any Green Bonds Proceeds have not been allocated to Eligible Loans, such amounts will be invested in accordance with Kommuninvest's internal policy for liquidity management. If a financed Eligible Project no longer meets the eligibility criteria upon approval, Kommuninvest will remove it from the pool of Eligible Loans. The company further informed that the liquidity reserve is typically invested in sovereign bonds or other public sector bond issuance and that no equity positions are allowed.

Kommuninvest will communicate on the nature of allocations to Eligible Projects in its Green Bonds Impact Report. The allocations will be verified by an external audit firm.

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<sup>1</sup> This refers to whether the application can be granted as an Eligible Project. Credit decisions regarding Eligible Loans are made by Kommuninvest in accordance with the usual process and guidelines.



## Reporting

Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs. Procedures for reporting and disclosure of green finance investments are also vital to build confidence that green finance is contributing towards a sustainable and climate-friendly future, both among investors and in society.

To enable investors to follow the development and provide insight to prioritized areas, Kommuninvest will provide an annual Green Bonds Impact Report to investors including:

- a summary of Eligible Loans/Projects including allocated amount, the distribution between Eligible Project Categories and expected impact,
- a list of Eligible Projects financed during the reporting year including a brief project description,
- a selection of project examples,
- information on the estimated reduced/avoided CO<sub>2</sub>-emissions related to Eligible Projects, including where feasible information on reduced/avoided emissions related to the construction phase of new buildings.
- a summary of Kommuninvest's Green Bonds development, including information on the share of Eligible Loans of Kommuninvest's total lending (so-called *Green Loan Ratio*) and information on the share of outstanding Green Bonds of Kommuninvest's total borrowing (so-called *Green Bond Ratio*),
- the distribution between new financing and refinancing,
- key sustainability figures for Kommuninvest, including energy performance and CO<sub>2</sub>-emissions.

Kommuninvest will report environmental impact in accordance with the Nordic harmonised approach, as outlined in “Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting” developed by a group of Nordic issuers including Kommuninvest and available on Kommuninvest's web page.

Kommuninvest encourages and promotes the use of impact analysis (ex-ante) and impact reporting (ex-post) to the largest extent possible, and annually requires its clients to report back on Eligible Projects. The Kommuninvest Green Bonds Impact Report will be made publicly available on Kommuninvest's web page. Furthermore, the principle of free access to public records is applied. This will provide broad insight to both investors and potential investors.

While the issuer mentioned the management of green bond proceeds is externally reviewed, the reporting itself will not be externally reviewed.



### 3 Assessment of Kommuninvest's green bond framework and policies



The framework and procedures for Kommuninvest'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; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where Kommuninvest should be aware of potential macro-level impacts of investment projects.

#### Overall shading

Based on the project category shadings detailed below, and consideration of environmental ambitions and governance structure reflected in Kommuninvest's green bond framework, we rate the framework **CICERO Medium Green**.

#### Eligible projects under the Kommuninvest's 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 investors with certainty 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  	<ul style="list-style-type: none"><li>• Wind</li><li>• Wave</li><li>• Solar</li><li>• Geothermal</li><li>• Bioenergy</li><li>• Biogas</li><li>• Excess heat</li><li>• Conversion from fossil to renewable</li><li>• Hydro (New financing is only allowed for small-scale hydropower, which in this Framework refers to a hydropower plant with less than 10 megawatts (MW) of production capacity. New financing can also be granted for upgrading of existing hydropower plants Refinancing of existing hydropower is allowed.)</li></ul>	<b>Medium to Dark Green</b> <ul style="list-style-type: none"><li>✓ Increasing the share of renewable energy in national electricity mixes is an essential part of achieving the long-term net zero emissions future.</li><li>✓ Bioenergy projects can include up to 10% fossil fuels. If waste is used as an energy input, this may rise up to a maximum of 20%.</li><li>✓ Waste incineration can be included as part of the energy mix in district heating and combined heat and power, however the maximum 20% fossil fuel share applies and provided that such treatment contributes to reduced overall emissions. Plastics are the main source of the fossil included in the 20%. Kommuninvest informed us it is currently not aware of any large scale waste-to-energy projects.</li><li>✓ Transport of waste can also originate from abroad according to the issuer, typically UK</li></ul>



and Norway, but as part of the entire life cycle, the resulting emissions are considered small by Kommuninvest.

- ✓ Wind power and solar PV are keys to a low carbon transition.
- ✓ While solar power is generally low-carbon, local environmental impacts such as on biodiversity, habitat and landscape can be of concern for these projects.
- ✓ Wind projects can also have adverse local environmental impacts, including on bird and bat migration trajectories, and impacts on local communities.
- ✓ Investors should be aware that some geothermal projects could be associated with potential heavy metal pollution and large GHG emissions. No emission threshold has been defined but according to the issuer this is a consideration for the future.
- ✓ The issuer informed us that the requirements on Bioenergy are currently subject to the EU Renewable energy directive (RED) and national forest regulation.
- ✓ The issuer informed us that the Excess heat includes waste heat usually in connection with industrial activities.
- ✓ The issuer informed us that the financing for upgrading of existing hydropower plants or the refinancing of existing hydropower can potentially lead to an increased capacity. All projects financed must comply with Swedish Legislation, which is under revision to better comply with the EU water directives. However, no further criteria are given by the issuer, e.g., regarding biodiversity impacts.

Energy  
efficiency in  
energy  
systems and  
operations





- District heating/cooling
- Electricity grids/smart grids
- Energy recovery and storage
- Energy efficiency with at least 30 per cent reduction in energy use

#### Medium Green



- ✓ The issuer informed us that examples of energy efficiency projects could be district heating thermal storage, battery infrastructure, waste heat recovery, exhaust gas condensation and recovery.
- ✓ Energy efficiency projects can include up to 10% fossil fuels.





		<ul style="list-style-type: none"> <li>✓ Maintenance and upgrades of district heating infrastructure may be linked to heat created also by generators run on fossil fuel.</li> <li>✓ The issuer should consider the potential for rebound effects for energy consumption.</li> </ul>
<p>Clean transportation</p> 	<ul style="list-style-type: none"> <li>• Public transport and supporting infrastructure</li> <li>• Infrastructure for sustainable transport (bicycles, pedestrians, electric vehicles, etc.)</li> <li>• Logistic solutions with reduced environmental impacts for the transport of people and goods</li> </ul>	<p><b>Medium Green</b></p> <ul style="list-style-type: none"> <li>✓ Maximum fossil energy component for public transportation is 20%. According to the company, each project is assessed on a case-by-case basis. This could also relate to biofuel blended with smaller shares of fossil fuels.</li> <li>✓ The potential for emissions reduction is context dependent: aspects of planning, degree of urbanization, vehicle technologies and fuel type utilized, etc.</li> <li>✓ The issuer should consider potential lock-in effects, and should avoid fossil fuels use.</li> <li>✓ The issuer has financed electric harbor equipment in the past and it informed us that it will potentially continue to allocate proceeds to harbor related infrastructures which carries risks of facilitating fossil intensive shipping activities.</li> <li>✓ The issuer informed us that it is unlikely that the selection committee would approve airport related infrastructure investments.</li> </ul>
<p>Waste management</p> 	<ul style="list-style-type: none"> <li>• Recycling and re-use,</li> <li>• Material and energy recovery</li> </ul>	<p><b>Medium Green</b></p> <ul style="list-style-type: none"> <li>✓ The issuer informed us that Waste-to-energy included in this project category is mostly related to biogas production from food waste, sludge and other bio residuals. The infrastructure is typically local, and transports are usually within the municipality although cross-municipality transportation do exist, e.g., to bring food waste to bio upgrade facility, according to Kommuninvest.</li> <li>✓ Waste-to-energy as part of energy production with a maximum 20% fossil energy share (including plastics) would be included in the renewable energy category.</li> <li>✓ The issuer should consider lifecycle emissions and potential lock-in effects. Should avoid fossil fuels use. Good practices</li> </ul>



		<p>should include recycling of resources and reduction of methane emissions.</p> <ul style="list-style-type: none"> <li>✓ The issuer confirmed that it may finance collection trucks provided they meet the fossil energy caps of the clean transportation category and it will not finance collection trucks using fossil fuels.</li> <li>✓ Investments in reducing methane leakage from former landfills can be included. However, the company confirms that it does not finance active landfills.</li> </ul>
<p>Water and waste water management</p> 	<ul style="list-style-type: none"> <li>• Water infrastructure</li> <li>• Waste water management</li> <li>• Cleaning facilities</li> </ul>	<p><b>Medium Green</b></p> <ul style="list-style-type: none"> <li>✓ Sustainable water and wastewater management is part of the necessary adaptation to a changing climate.</li> <li>✓ According to the issuer, financed infrastructure is not powered directly by fossil fuels, but may be powered by electricity from the Swedish grid.</li> <li>✓ The issuer should consider utilizing green infrastructure when possible.</li> </ul>
<p>Green buildings and energy efficiency</p> 	<ul style="list-style-type: none"> <li>• Residential multi-family buildings: New or existing buildings with an energy performance where the primary energy demand (PED) is at least 20 per cent lower than required by applicable regulation (Swedish Building Regulations, BBR 29).</li> <li>• Non-residential buildings: New or existing buildings with an energy performance where the primary energy demand (PED) is at least 20 per cent lower than required by applicable regulation (Swedish Building Regulations, BBR 29).</li> <li>• Major renovations of buildings leading to an improved energy performance where the primary energy demand (PED) is reduced by at least 30 per cent or to compliance</li> </ul>	<p><b>Medium Green</b></p> <ul style="list-style-type: none"> <li>✓ This is the dominant category in the current green portfolio.</li> <li>✓ Building criteria are considered adequate but may not reflect best available technology nor the highest level of standards possible in Sweden.</li> <li>✓ The issuer increased the necessary requirement for energy performance by 5% in this update (from 15% lower than regulation to 20% lower than regulation).</li> <li>✓ Kommuninvest encourages that new buildings are certified or completed in accordance with one of the established systems available on the market, e.g. BREEAM, LEED, Environmental Building (Miljöbyggnad), Nordic Swan Ecolabel (Svanen), etc. However, this is not a requirement for approval. The issuer further informed us that it does not track the share of buildings with certification. However, the issuer estimates that approx. a 20% share of</li> </ul>





	<p>with the energy performance requirement according to applicable regulations (Swedish Building Regulations, BBR 29).</p> <ul style="list-style-type: none"> <li>• Energy efficiency measures in partial systems of existing buildings leading to at least 30 per cent less energy use.</li> <li>• For buildings with construction start from January 1, 2022, the applicant must be able to show both that life-cycle-oriented climate measures are implemented in the project, as a minimum for the frame, and that the building's climate impact during the construction phase has been calculated</li> </ul>	<p>the buildings have a certification or built in “according to certification”.</p> <ul style="list-style-type: none"> <li>✓ According to the IEA, a 30% reduction would be necessary to be in line with the IEA ‘well below 2 C’ target. One of the criteria for major renovation is aligned with this target.</li> <li>✓ The issuer informed us that climate risk exposure of the buildings is currently not screened for, which represents a pitfall. However, the issuer stated it will increasingly strive to be transparent about climate-related physical risk of eligible projects, and, where these are identified, to be transparent about how these risks will be managed. The issuer should consider the physical climate risks prior to project investment using climate scenarios.</li> <li>✓ According to the issuer, non-residential buildings refer only to public sector buildings, such as office space, sports facilities, convention centers/public libraries/events facilities.</li> <li>✓ The issuer confirmed that it has also introduced new LCA requirements for buildings as of January 1, 2021, and that it aims to foster increased use of life cycle analysis of climate impact in property construction.</li> </ul>
<p>Climate change adaptation</p> 	<ul style="list-style-type: none"> <li>• Measures in buildings, infrastructure and sensitive surroundings</li> </ul>	<p><b>Dark Green</b></p> <ul style="list-style-type: none"> <li>✓ The issuer confirmed that financing going to adaptation of roads or road components dedicated to cars is excluded from financing. However, public transport and bicycle elements could be included.</li> </ul>
<p>Environmental management</p> 	<ul style="list-style-type: none"> <li>• Examples are: nature conservation, biodiversity measures, sustainable agriculture, improving eco-system services</li> </ul>	<p><b>Dark Green</b></p>

Table 1. Eligible project categories



## Background

As providers of infrastructure, public services and welfare across Sweden, the municipalities that comprise Kommuninvest play an important role in mitigating and adapting to climate. This is heightened by Sweden's emphasis on self-government, so that large proportions of public service provision are devolved to municipalities.

Swedish municipalities are expected to play an important role in Sweden meeting its climate targets. As a member of the EU, Sweden is subject to the EU's climate targets of reducing collective EU greenhouse gas emissions by 40% by 2030 compared to 1990 levels, increasing the share of renewable energy to 32% and improving efficiency by at least 32.5%.<sup>2</sup> The European Green Deal aims for carbon neutrality in 2050.<sup>3</sup> Sweden has developed a National Energy and Climate Plan (NECP) in which it outlines the targets and strategies in all sectors.<sup>4</sup> The NECP emphasizes the important role of municipalities in Sweden's climate work, given their closeness to populations, their role in town and county planning and the fact they are major employers.<sup>5</sup> The NECP strategies include measures relating to many sectors in which the municipalities are active, for example the large-scale implementation of clean transportation alternatives and increasing renewable energy capacity. Non-ETS emissions, which include municipal buildings and municipality-provided housing, must also decrease by 63% by 2030.

At the same time, municipalities must invest in climate resilient infrastructure and assets, and provide services in ways which are adaptable to climate change. For example, in planning and constructing municipal buildings, municipalities should consider flood and erosion risk. Similarly, in providing social infrastructure such as schools, hospitals and care homes, municipalities should consider shifting migration patterns as a result of climate change.

In March 2020, a technical expert group (TEG) proposed an EU taxonomy for sustainable finance that included a number of principles including "do-no-significant-harm (DNSH)-criteria" and mitigation thresholds for various types of activities. In November 2020, the EU published its draft delegated act to outline its proposed technical screening criteria for climate adaptation and mitigation objectives, respectively, which it was tasked to develop after the Taxonomy entered into law in July. Kommuninvest's eligible activities relate to a range of activities outlined in the taxonomy. A screening against the criteria in the EU taxonomy has not been conducted. The issuer has informed us that during 2021 it will undertake analysis and consultation efforts aimed at developing a position on the appropriate degree of taxonomy alignment of the framework.

## Governance Assessment

Four aspects are studied when assessing the Kommuninvest's governance procedures: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify eligible projects under the framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

Kommuninvest has a well-established sustainability policy in place and has a "Green Loans" programme to stimulate the local government sector's environmental and climate work. Kommuninvest aims to reach 15-20% green share of lending in the future, but has not specified a concrete target year. The issuer informed us that they would like to be seen as supportive tool to their clients, and are less keen on establishing timed target metrics. Kommuninvest also aims to foster the use of life cycle analysis of climate impact in property construction and has

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<sup>2</sup> [https://ec.europa.eu/clima/policies/strategies/2030\\_en](https://ec.europa.eu/clima/policies/strategies/2030_en)

<sup>3</sup> [https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en)

<sup>4</sup> [https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans\\_en](https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en)

<sup>5</sup> [https://ec.europa.eu/energy/sites/ener/files/documents/se\\_final\\_necp\\_main\\_en.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/se_final_necp_main_en.pdf)

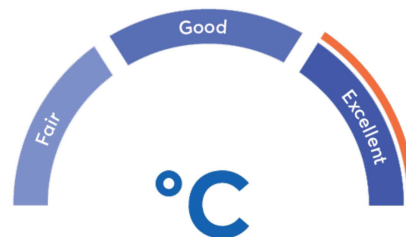


also introduced new LCA requirements for buildings as of January 1, 2021, which is in line with Sweden's upcoming new climate declaration for buildings regulation. According to the issuer, Kommuninvest aims at being ahead of regulations and hopes to be able to introduce caps for maximum embedded CO<sub>2</sub> in property construction several years before it becomes mandatory in the regulation. No LCAs are required for other projects. According to the issuer, Kommuninvest deploys a materiality approach addressing their largest project category (buildings) first. While Kommuninvest is aware of climate risks, the issuer does not report in accordance with the TCFD recommendations and does not yet use climate scenarios, nor has specific climate related targets (e.g., for own emission reductions, scope 3 emissions, green lending etc.) at the company level. CICERO Green encourages the issuer to better address the climate risks in the projects financed by green loans.

The selection process includes at least three external members, consisting of representatives of the environmental unit from at least two member municipalities/regions, as well as other relevant organizations in the public sector and/or academia, and in addition representatives from Kommuninvest's management, sustainability function and lending departments. Decision are taken by consensus. However, the selection does not require LCA for all projects categories at the moment, but environmental impact assessments are required systematically according to the issuer.

Kommuninvest will also provide an annual Green Bonds Impact Report to investors, and will report environmental impact in accordance with the Nordic harmonised approach, as outlined in "Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting". The reporting is made available on Kommuninvest's web page. The company will conduct LCAs for selected buildings, but informed us that it will not report the life cycle impact on the avoided emissions for the whole portfolio. The allocation reporting is audited according to the issuer, but the impact reporting is not externally reviewed according to the issuer.

The overall assessment of Kommuninvest's governance structure and processes gives it a rating of **Excellent**.



## Strengths

The backbone of the governance structure is Kommuninvest's Green Bond Framework. 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 is a clear strength that Kommuninvest in their selection of eligible loans puts strong emphasis on environmental competence and including external experts in the selection committee. This is of particular importance since the framework covers many eligible project categories, some with a broad scope. Finally, Kommuninvest's reporting and verification commitment is a strength and is aligned with the "Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting". Investors should however be aware of the potential pitfall associated with the methodology mentioned below.

It constitutes a strength that Kommuninvest is updating and strengthening its eligibility criteria for green buildings. The requirements for green buildings have been increased from requiring energy demand to be 15% lower than regulation to 20% lower than regulation. In addition, for buildings with construction start from January 1, 2022, the applicant must be able to show that life-cycle-oriented climate measures are implemented and that life cycle assessments are conducted.





## Weaknesses

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

## Pitfalls

CICERO Green 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. This also includes investment in energy efficiency in energy systems projects that could include upgrades and maintenance of district heating distribution that is still partly based on fossil fuels. 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. We have revised the eligible project category "energy efficiency" slightly from Dark to Medium Green to Medium Green in this Second Opinion. This is due to how we now shade e.g. efficiency in district heating networks. In order to achieve a Dark Green shading for such investments, the network needs to be based on renewables. If the network still to some extent is based on generators that run on fossil fuels, a clear pathway to achieve 100 percent renewables in the near future, has to be demonstrated. The issuer has informed us that for projects in the Energy efficiency category with more than 10%, but max 20% fossil fuel components, including peat, a plan for rapidly reducing this fossil fuel component to below 10 % will be a firm requirement for loan approval.

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. The issuer informed us that since the last second opinion was provided it started cooperating with the Swedish Association for Public Sector Housing and the IVL Environmental Research Institute since 2019, to foster increased use of LCA climate impact analysis, and have introduce stricter financing criteria that will be sharpened as of 2022. The issuer further mentioned that it has engaged in outreach and communication activities during 2019 and 2020, and is now expanding the cooperation to also cover renovations in the future.

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, but less than 20%) such as bioenergy (including waste-to-energy) and public transportation. According to the issuer, it is relatively common to have a minor share of fossil energy (less than 10 percent), but very uncommon to exceed that level. The issuer informed us that the fossil share in heat and electricity production is generally decreasing on a national level and in most local energy systems. Projects are typically related to district heating involving bioenergy. In public transportation, the issuer mentioned that it does not recollect having any applications exceeding 10% fossil content. However, there is a potential risk that these green bond categories (bioenergy (including waste-to-energy) and public transportation) could theoretically include projects that may not represent significant improvements over a business-as-usual scenario. It is 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.

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.

According to the International Energy Agency (IEA), the buildings and buildings construction sectors combined are responsible for 36% of global final energy consumption in 2018 and nearly 40% of total direct and indirect CO<sub>2</sub> emissions. Emissions from heating of buildings in Sweden have decreased from 9.3 million tonnes CO<sub>2</sub> to 0.8 million tonnes over the period from 1990 to 2019.<sup>6</sup> Energy efficiency improvements in buildings are thus important building blocks for reaching the 2-degree climate change goal. Kommuninvest applies criteria for both new buildings and in renovation of existing buildings and has strengthened its efficiency requirements with this update with energy efficiency requirements over and above status quo. In addition, they require that other steps towards sustainability be taken, ranging from conducting a lifecycle analysis to environmental certification. The Green Bond Framework would benefit from a clearer requirement that best environmental technology is used in eligible green bond building projects. Voluntary certifications could be required and the classification level of projects could be increased to reflect best available technology in Sweden. Kommuninvest is largely reliant on data provided by applicants 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 reduce the risk of investment in projects with questionable “green” credentials.

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 for the same cost as 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. In addition, the issuer has recently financed electrified port infrastructure which can have broader impacts on fossil intensive shipping activities.

CICERO Green very much welcomes the development and use of a common methodology in impact reporting, and sees it as a clear strength that Kommuninvest commits adherence to the "Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting" in their Green Bond Framework. The green bond market has evolved by some issuers taking the lead. CICERO Green is encouraged that not only emissions reductions, but also other indicators that measure the transition to a low carbon and climate resilient society are reported. We are also encouraged to see that the position paper is based on the principle of transparency regarding choice of methodology. The European grid factor recommended by the Nordic Public Sector Issuers is high 315 g CO<sub>2</sub>/kWh<sup>7</sup>, and represent a risk of overestimating emission reduction impacts.

The Nordic Public Sector Issuers have chosen the geographic area comprising EU26+Norway because the Nordic energy system is more and more connected to other European countries facilitating export and import of electricity. Kommuninvest has informed us that using this methodology, but confining it to electricity production in only

<sup>6</sup> <https://www.naturvardsverket.se/Sa-mar-miljon/Statistik-A-O/Vaxthusgaser-utslapp-fran-uppvarmning-av-bostader-och-lokaler/>

<sup>7</sup> [https://kommuninvest.se/wp-content/uploads/2020/02/NPSI\\_Position\\_paper\\_2020.pdf](https://kommuninvest.se/wp-content/uploads/2020/02/NPSI_Position_paper_2020.pdf)



Sweden, Norway, Finland and Denmark, would give a baseline Combined Margin of 122 g CO<sub>2</sub>/kWh (2020). National agencies in Norway and Sweden tend to prefer using factors representing a national or Nordic production mix. Using such a mix would be more favourable for electrification solutions such as electric vehicles.

It constitutes a pitfall that the issuer has not yet implemented a systematic approach on assessing climate related risks and has not yet implemented TCFD recommendations.



# Appendix 1:

## Referenced Documents List

Document Number	Document Name	Description
1	Kommuninvest's Green Bonds Framework	Green Bond Framework description
2	Regeringens skrivelse 2013/14:145 - Svenska miljömål visar vägen!	A comprehensive description of the government's environmental targets
3	Miljöbalken	The Environmental law of Sweden
4	Miljömål: <a href="http://www.miljomal.se/">http://www.miljomal.se/</a>	An internet portal on environmental targets
5	Miljömålen: Årlig uppföljning av Sveriges miljökvalitetsmål och etappmål 2017 – Naturvårdsverket <a href="http://www.naturvardsverket.se/Documents/publikationer6400/978-91-620-6749-6.pdf?pid=20349">http://www.naturvardsverket.se/Documents/publikationer6400/978-91-620-6749-6.pdf?pid=20349</a>	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 2020, <a href="https://kommuninvest.se/wp-content/uploads/2021/02/KIAB_AR2020_ENG.pdf">https://kommuninvest.se/wp-content/uploads/2021/02/KIAB_AR2020_ENG.pdf</a>	Annual report from Kommuninvest 2020
8	Kommuninvest – Municipal borrowing 2017 (including investments), <a href="http://kommuninvest.se/om-oss/forskning/rapporter/kommunala-laneskulden-2017/">http://kommuninvest.se/om-oss/forskning/rapporter/kommunala-laneskulden-2017/</a>	An overview of investments by municipalities in 2017
9	Kommuninvest – Sustainability Policy, <a href="https://kommuninvest.se/wp-content/uploads/2020/12/Sustainability-Policy-2020.pdf">https://kommuninvest.se/wp-content/uploads/2020/12/Sustainability-Policy-2020.pdf</a>	Document laying out the sustainability policy of Kommuninvest.
10	"Nordic Public Sector Issuers: Position Paper on Green Bonds Impact Reporting", published on February 2020 <a href="https://kommuninvest.se/wp-content/uploads/2020/02/NPSI_Position_paper_2020.pdf">https://kommuninvest.se/wp-content/uploads/2020/02/NPSI_Position_paper_2020.pdf</a>	A practical guide on impact reporting for Nordic public sector green bond issuers.
11	Kommuninvest Green Bonds Impact Report, December 2020	
12	Project-by-Project reporting 2020	Excel document published by Kommuninvest on green bond projects



## Appendix 2: About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green 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 Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent 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).

